WSX25 - Improving biodiversity

Business plan
2025-2030

Wessex Water
YTL GROUP

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WSX25 - Improving biodiversity

There are no annexes to this document.

This supporting document is part of Wessex Water's business plan for 2025-2030.

*Please see **'WSX00 – Navigation document'** for where this document sits within our business plan submission.*

More information can be found at wessexwater.co.uk.

Executive summary

A key priority area is to protect and enhance the environment and the natural capital in our region. This relates to our outcome to improve biodiversity where investment between 2025-30 will deliver improvements for our customers and the environment, as part of our longer term strategy to 2050.

This outcome will be delivered through a combination of interventions and investigations, both on our estate and more widely across our region with a range of different partners and land managers.

Key activities to deliver this outcome across our region during 2025-30 include:

- Improving the biodiversity of 716 hectares of land, prioritising land that contains or neighbours priority habitats or protected species.
- Creating around 200 hectares of additional habitat through implementation schemes identified in the WINEP
- Improving the biodiversity value of our own landholding by delivering actions to achieve 1,000 further Biodiversity Units, at maturity, through a combination of measures.

This aligns with statutory duties identified in the Natural Environment and Rural Communities Act, our wider duties under the Water Industry Act and new requirements to address the ecological emergency and restore nature. There is also a new common biodiversity performance commitment for AMP8 where we have detailed our approach to implement and report changes to our landholding. Biodiversity is also a multiple benefit which will result from wider programmes identified elsewhere in this Business Plan, for example the implementation of nature-based solutions to address groundwater influenced storm overflows.

We have based our environment programme on what we anticipate to be the final Water Industry National Environment Programme (WINEP), which is being produced in collaboration with the Environment Agency and Natural England and associated regulatory guidance. The WINEP sets out the actions that we need to complete to fulfil our statutory and non-statutory requirements to improve the environment within our region. These measures may be investigations, monitoring, options appraisals or schemes to protect and enhance the environment.

Additional investment is required to deliver a range of Performance Commitments and improvements associated with our Public Interest Commitment for tree planting. These have been developed in consultation with the Catchment Panel and through wider public consultation.

Customer research illustrated strong support for improving biodiversity, where:

- The principle of ‘Improving the natural environment’ is the number one for positive impact, but for most people is expected.
- Customers expressed a willingness to pay more for large improvements in supporting nature and wildlife.

This level of customer support has been emphasised by both the Catchment Panel and Wessex Water Customer Challenge Group, with great interest in the development of this aspect of the Plan and associated Performance Commitment.

Our proposals to protect and enhance the environment have been subject to scrutiny through our board assurance process and approved as indicated by the extract from the Board Assurance Statement (WSX44 – Our Assurance Strategy and Assurance Statements) below:

> We fully recognise and embrace the importance of Board level challenge of the PR24 Business Plan (the “**Plan**”) and are clear that our Board is fully satisfied that the Plan represents the long-term vision and ambition of the Company within the current statutory and regulatory requirements.

1. Introduction

1.1. Outcome

This chapter details Wessex Water's plans to improve biodiversity during PR24, aligned to our Strategic Direction Statement and overall company purpose.

As a company we are committed to improving biodiversity within our region, both on and outside of the landholding which we own. This chapter details the ways in which we will be delivering this between 2025 and 2030. This chapter relates to other areas of the Business Plan where further proposals to enhance biodiversity over the longer term, via our Long Term Delivery Strategy, and as part of the PR24 Performance Commitment, are detailed.

1.2. Structure of this document

This document is structured to cover each area of our biodiversity outcomes. The document has been divided into the following sections:

- Improving biodiversity – managing our landholding
- Improving biodiversity – working in partnership
- Ongoing monitoring and maintenance for biodiversity

Each section starts with a summary, and continues to provide the necessary supporting evidence, under the following headings:

- Need for investment;
- Management control;
- Best option for customers;
- Robust and efficient costs; and
- Customer protection.

The section concludes with a full summary of the investment proposals, together with associated costs.

The following apply to the whole programme and are therefore covered separately:

- Affordability: WSX04 – Summary of Customer Research
- Board assurance: WSX44 - Our assurance strategy and assurance statements

Table 1 - Enhancement case table

	Requirement	See section	Comment
A1.1.1 Need for enhancement investment			
A	Is there evidence that the proposed enhancement investment is required (i.e. there is a quantified problem requiring a step change in service levels)? This includes alignment agreed strategic planning framework or environmental programme where relevant.	WSX25 – 3.1.1, 4.1.1 & 5.1.1	NERC driver investment is a statutory obligation included in the WINEP for which the EA and NE have confirmed the need. he 25YEP driver investment is a non-statutory obligation included in the WINEP for which the EA and

			NE have confirmed the need and is supported by the WW Board The tree planting requirement is a public interest commitment.
B	Is the scale and timing of the investment fully justified, and for statutory deliverables is this validated by appropriate sources (for example in an agreed strategic planning framework)?	WSX25 – 3.1.1, 4.1.1 & 5.1.1	Align with statutory timescales and/or WINEP completion dates
C	Does the proposed enhancement investment or any part of it overlap with activities to be delivered through base, and where applicable does the company identify the scale of any implicit allowance from base cost models?	WSX25 – 5.1.4	Ongoing monitoring and data collection are tree planting are base costs.
D	Does the need and/or proposed enhancement investment overlap or duplicate with activities or service levels already funded at previous price reviews (either base or enhancement)?	N/A	New requirements via WINEP or PC
E	Is the need clearly identified in the context of a robust long-term delivery strategy within a defined core adaptive pathway?	WSX54	Identified within Long Term Deliver Strategy
F	Where appropriate, is there evidence that customers support the need for investment (including both the scale and timing)?	WSX04 – 3.8	Strong customer support
G	Is the investment driven by factors outside of management control? Is it clear that steps been taken to control costs and have potential cost savings (eg spend to save) been accounted for?	WSX25 – 3.1.2, 4.1.2 & 5.1.2	Scale of requirements and costs assessed
A1.1.2 Best option for customers			
A	Has the company considered an appropriate number of options over a range of intervention types (both traditional and non-traditional) to meet the identified need?	WSX25 – 3.1.1, 4.1.1 & 5.1.1	Schemes are either investigations or implementation based on prior investigations and options appraisal
B	Has a robust cost–benefit appraisal been undertaken to select the proposed option? Is there evidence that the proposed solution represents best value for customers, communities and the environment over the long term? Is third-party technical assurance of the analysis provided?	WSX25 – 3.1.3, 4.1.3 & 5.1.3	Bottom-up costing based on previous internal and external delivery
C	In the best value analysis, has the company fully considered the carbon impact (operational and embedded), natural capital and other benefits that the options can deliver? Has it relied on robustly calculated and trackable benefits when proposing a best value option over a least cost one?		Best value analysis undertaken using EDA tool
D	Has the impact (incremental improvement) of the proposed option on the identified need been quantified, including the impact on performance commitments where applicable?	WSX47 – OUT1-3	Biodiversity Performance Commitment data tables and commentary
E	Have the uncertainties relating to costs and benefit delivery been explored and mitigated? Have flexible, lower risk and modular solutions been assessed – including where forecast option utilisation will be low?		N/A

F	Has the scale of forecast third party funding to be secured (where appropriate) been shown to be reliable and appropriate to the activity and outcomes being proposed?		N/A
G	Has the company appropriately considered the scheme to be delivered as Direct Procurement for Customers (DPC) where applicable?		N/A
H	Where appropriate, have customer views informed the selection of the proposed solution, and have customers been provided sufficient information (including alternatives and its contribution to addressing the need) to have informed views?		N/A – regulator, Catchment Panel and stakeholder views have informed options
A1.1.3 Cost efficiency			
A	Is it clear how the company has arrived at its option costs? Is there supporting evidence on the calculations and key assumptions used and why these are appropriate?		OUT1.6 Biodiversity OUT2.6 Biodiversity OUT3.6 Biodiversity OUT4.12 - OUT4.23 Biodiversity (Water) OUT5.15 - OUT5.25 Biodiversity (Wastewater) OUT4.108 - OUT4.118 Biodiversity (Combined)
B	Is there evidence that the cost estimates are efficient (for example using similar scheme outturn data, industry and/or external cost benchmarking)?	WSX25 – 3.1.3, 4.1.3 & 5.1.3	Bottom-up costing based on previous internal and external delivery
C	Does the company provide third party assurance for the robustness of the cost estimates?	WSX46 WSX47	Data tables have been audited by Mott MacDonald
Need for enhancement model adjustment			
D	Is there compelling evidence that the additional costs identified are not included in our enhancement model approach?		N/A
E	Is there compelling evidence that the allowances would, in the round, be insufficient to account for evidenced special factors without an enhancement model adjustment?		N/A
F	Is there compelling econometric or engineering evidence that the factor(s) identified would be a material driver of costs?		N/A
A1.1.4 Customer protection			
A	Are customers protected (via a price control deliverable or performance commitment) if the investment is cancelled, delayed or reduced in scope?	WSX47 – OUT1-3	Biodiversity Performance Commitment data tables and commentary. EA's EPA cover WINEP outputs
B	Does the protection cover all the benefits proposed to be delivered and funded (eg primary and wider benefits)?	WSX47 – OUT1-3	Biodiversity Performance Commitment data tables and commentary. EA's EPA cover WINEP outputs
C	Does the company provide an explanation for how third-party funding or delivery arrangements will work for relevant		N/A

	investments, including how customers are protected against third-party funding risks?		

2. The PR24 Environment Programme

2.1. Introduction

Defra's March 2022 Strategic Policy Statement (SPS) to Ofwat set out the UK government's priorities, including environmental priorities, for Ofwat's regulation of the water sector in England. The water industry is developing business plans to inform Ofwat's price review for 2024 (PR24), for 2025-30 (and beyond).

The Water Industry Strategic Environmental Requirements (WISER), published May 2022, was issued jointly by the Environment Agency and Natural England. It describes the environmental, resilience and flood risk obligations that water companies must take into account when developing their business plans. The WISER particularly has a focus on considering enhancements that go beyond the statutory minimum where there is customer support and wherever possible identify opportunities for working in partnership, in order to achieve wider benefits.

The Water Industry National Environment Programme (WINEP) is developed collaboratively between water companies and regulators, to identify specific environmental measures that water companies need to take to meet their environmental legislative requirements and related government priorities (as set out in SPS and WISER). These measures may be investigations, monitoring, options appraisals, or schemes to improve and protect the environment.

Figure 1: Strategic and specific guidance from regulatory bodies used in the development of our PR24 WINEP proposals

Defra Strategic Policy Statement (SPS)	Water Industry Strategic Environmental Requirements (WISER)	Water Industry National Environment Programme (WINEP)
Government (Defra) advice to Ofwat for PR24, with four strategic priorities for Ofwat: • Protect and enhance the environment • Deliver a resilient water sector • Serve and protect customers • Use markets to deliver for customers	WISER is a joint EA / NE strategic steer to water companies, based around objectives that water companies are expected to achieve: • A thriving natural environment • Resilience for the environment and customers • Expected performance and compliance	WINEP sets out the actions that water companies need to complete to meet their environmental obligations. • Drivers for investment range from measures for protected areas, improvements to meet River Basin Management objectives and other local environmental priorities. • There is an overall promotion of catchment and nature-based approaches, although some specific technical guidance does place restrictions.

The WISER categorises environmental expectations of water companies as:

- Statutory obligations (S) – While it is important to understand the costs and benefits of measures needed, these statutory obligations must still be achieved.
- Statutory plus obligations (S+) – In cases where action is considered disproportionately expensive to meet statutory plus obligations, alternative objectives, or timescales to meet them may be set.
- Non-statutory requirements (NS) – Water companies should demonstrate that there is an environmental requirement, and customer support and that such investments provide best value for customers over the long term.

2.2. Strategic Direction Statement

Our purpose is '*To support our customers' health and wellbeing, and enhance the environment and the diverse communities we serve*'. As an essential services business rooted in our region, we have a responsibility to do what we can, in partnership with others, to address shared societal challenges of unprecedented scale and urgency – the climate and nature emergencies, the need for carbon neutrality, rising public expectations of the environment, higher living costs and long-term resilience.

In March 2022 we published our strategic direction statement entitled *Water – a new direction* which sets out exactly how we intend to stretch ourselves over the coming 25 years. It describes our long-term vision and ambition around the role we will play in delivering the outcomes that customers, communities, and stakeholders expect of us, through to 2050.

Our strategic direction statement (presented in WSX59) looks at delivering long term outcomes, as opposed to traditional short-term outputs, and presents the following wheel to summarise our 25 year plan.

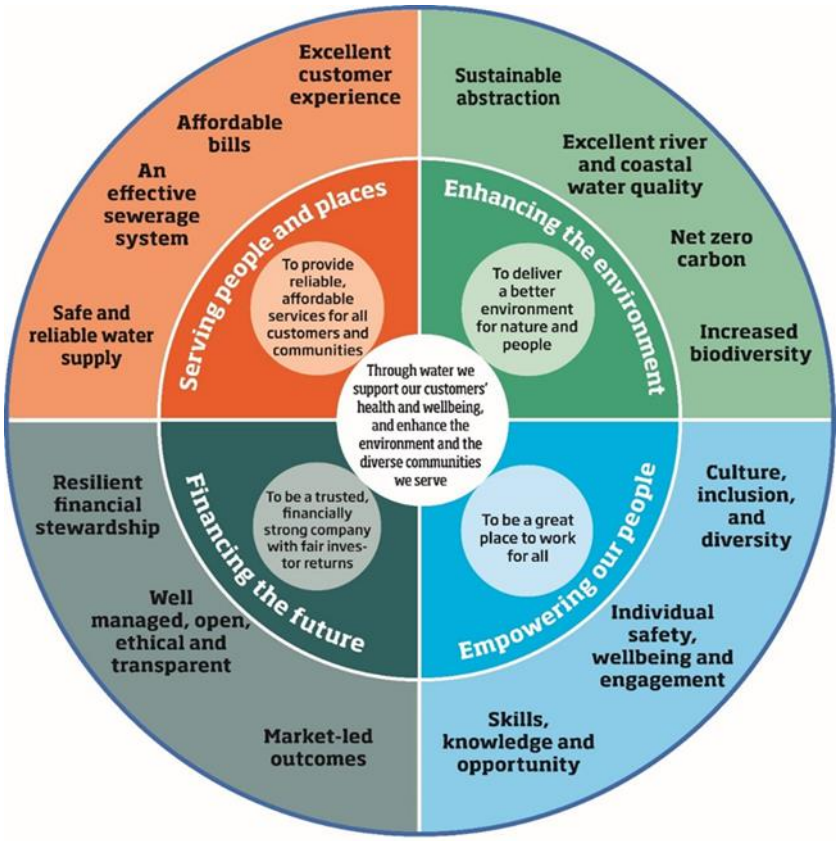
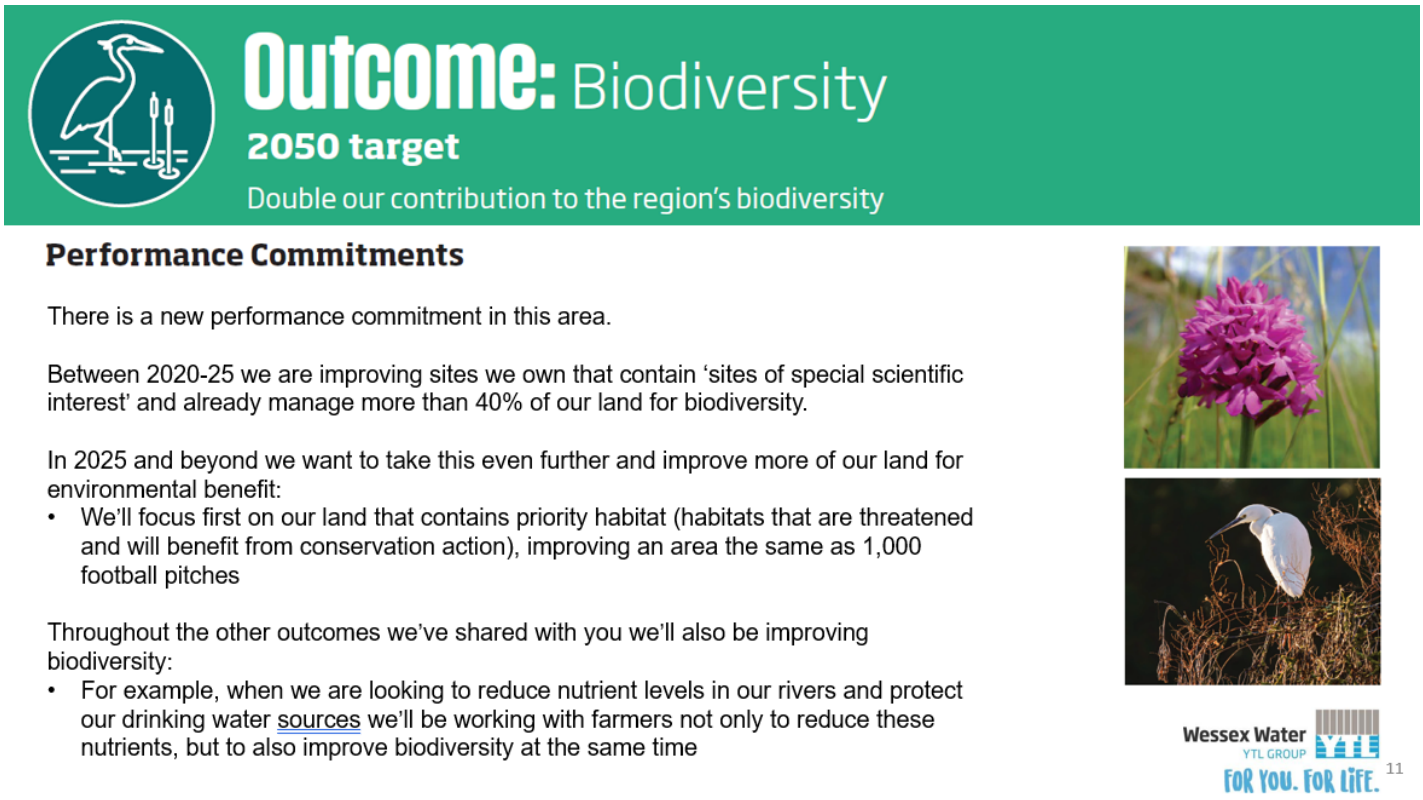


Figure 2 – Wessex Water's 25-year strategic vision

At the heart of our SDS are eight outcomes, all co-created with stakeholders, all focused on long-term ambition. They cover customer, community and environmental outcomes and are shown in the top half of Figure 2. We have also identified some enablers, involving internal and wider supply chain partnerships, that we will need to secure to effectively deliver our eight outcomes, centred around strong financing and governance, and empowered people. These are shown in the bottom half of the wheel.

The extract below (Figure 3) describes how we intend to deliver the outcome 'Improved Biodiversity' as part of the overall ambition 'To deliver a better environment for people and nature'. This slide was presented at the various in-person and online stakeholder sessions as this Plan was developed.

Figure 3 – PowerPoint slide describing our Biodiversity Outcome from stakeholder engagement sessions.



Our SDS provides similar details on our 'Sustainable abstraction' and 'Excellent river and coastal water quality' outcomes.

2.3. WINEP

2.3.1. WINEP Background

A large part of the Wessex Water environmental programme is governed by the Water Industry National Environment Programme (WINEP). This identifies the specific environmental measures to be included in water companies' PR24 business plans.

We have collaborated extensively with the Environment Agency and Natural England during development of the WINEP to ensure that the best possible outcomes are delivered for the environment and for our customers. Our overall aims have been to ensure that there is sound, scientific evidence of the need for an environmental improvement, to always consider more beneficial alternative ways of achieving similar objectives, and to challenge timescales for delivery.

In addition to collaboration with our regulators, we have worked with the Wessex Water Catchment Panel to update members on business plan development and WINEP requirements.

2.3.2. WINEP Core Obligations

Notwithstanding our businesses' fundamental duty to protect and enhance the natural environment, some responsibilities are further enforced by statutory obligations. The principal EU/UK Directives and Regulations as identified in the WINEP are summarised in Table 2. This summarises the core environmental obligations which translate into the drivers identified in the WINEP, not all of which may be relevant to the actions described in this chapter to improve terrestrial biodiversity, however, reference is made to wider drivers and other parts of the Business Plan where there is supporting information.

Table 2 - Core obligations associated with protecting and enhancing the environment

Core Obligations
Habitats and Birds Directives (HD): The Habitats and Wild Bird Directives (HD) protects certain species and habitats in the European Union. The legislation requires the designation of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) and that these sites are properly protected and managed. SPAs and SACs contribute to the network of European sites, referred to collectively as Natura 2000. Post Brexit these have become the Habitats Regulations. Ramsar sites are wetlands of international importance, designated under the Ramsar Convention. Ramsar sites are treated in the same way as SPAs and SACs.
Sites of Special Scientific Interest (SSSI): The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) requires statutory undertakers (including water companies) and public bodies to take reasonable steps, consistent with the proper exercise of their functions, to further conservation and enhancement of the flora, fauna or geological or physiological features of Sites of Special Scientific Interest (SSSIs).
NERC Biodiversity Priority (NERC): The Natural Environment and Rural Communities Act 2006 (NERC Act) places a duty on every public authority, including water companies, to have regard to conserving biodiversity. This is with the aim of restoring or enhancing a species population or habitat and reflects government's ambition for the 'prevention of further human-induced extinctions of known threatened species'.
25 Year Environment Plan (25YEP): The government has an ambition to leave the environment in a better condition for future generations which is delivered through actions identified in the 25 Year Environment Plan. This is far reaching, encompassing air quality, water quality, improving biodiversity, minimising waste, adapting to climate change, reducing exposure to contaminants and biosecurity measures.

The abbreviation in brackets in Table 2 above is the designation used in the WINEP for each core obligation. Within the WINEP, each scheme has also been attributed a specific action, as described in 3, that is associated with the respective core obligation.

Table 3: Actions associated with core obligations.

Actions	Action Code	Action Description
Action (To prevent deterioration)	ND	Measures to prevent deterioration of water quality or ecological parameters.
Action (To improve)	IMP	Measures to reach required status, such as reducing phosphorus at STWs in order to meet WFD good ecological status. For some drivers, a 'g' suffix is applied (i.e., IMPg) to indicate a move to good status for that element.
Investigation	INV	Investigations and – as appropriate – options appraisals in PR24 to inform investment in PR29. The investigations will have a specific scope agreed with the EA.
Long term monitoring	MON	Long-term monitoring measures to inform investment in PR29 or PR34, such as Event Duration Monitoring (EDMs) of storm discharges, STW flow monitoring, trend monitoring for chemicals and surveillance programmes for invasive species.

Each scheme identified within the WINEP has been assigned a primary core obligation and an associated action. For example, a scheme with a driver code of WFD_IMP is one requiring improvement to meet the Water Framework Directive requirements. In some cases, a scheme may have secondary or tertiary drivers to address the same issue, such as HD_IMP and SSSI_IMP.

Between 2025 and 2030 we have 12 terrestrial biodiversity WINEP investigations and implementation actions that fall under four drivers, set out in Table 4 below. Those concerning landholding are set out in Section 0, whilst those outside our landholding are described in Section 4.1

Table 4: Summary of AMP8 WINEP terrestrial biodiversity investigation and implementation actions

Driver code	Description	Number of WINEP actions	Completion date
NERC_INV	Investigations and/or options appraisal for changes to permits or licences, and/or other action that contributes towards biodiversity duties, requirements, and priorities	1	30/04/2027
NERC_IMP	Changes to permits or licences, and/or other action that contributes towards biodiversity duties, requirements, and priorities	9	31/03/2030
HD_IMP	Action to contribute to restoration of a European site or Ramsar site to move towards meeting the conservation objectives	1	31/03/2030

25YEP_INV	Investigations into a locally significant environmental issue not eligible under any other driver, but with clear evidence of customer support	1	30/04/2027
	Total	12	

2.4. Options Development

In developing the WINEP, water companies are required to produce Options Assessment Reports (OARs) and Development Reports (ODRs) to demonstrate that best value actions go into the WINEP. The EA guidance illustrating the level of option assessment is shown in Figure 4 below.

No ODRs were required for the biodiversity schemes identified in the WINEP, primarily as these are either investigations or implementation schemes based on the findings of previous investigations. Implementation schemes informed by previous investigations, primarily as funded WINEP investigations in AMP7, would have included an options appraisal and have received regulatory sign off from the Environment Agency and additionally from Natural England. Therefore, options development for implementations schemes occurred in AMP7 and investigations were identified based on EA and NE assessments of risks and issues when developing the WINEP. This is illustrated by the red shaded boxes in the figure below.

Figure 4 - EA Guidance on Options Assessment Criteria for WINEP Schemes

Annex 1: PR24 WINEP options development requirements

Components	Investigation INV	Prevent Deterioration ND	Improvement IMP	Monitoring MON
Option Development Report (ODR)	Not required (PR24 investigation detailed in Action Specification Form)	Required at appropriate scale (or PR19 investigation output treated as ODR where option developed in PR19)	Required at appropriate scale (or PR19 investigation output treated as ODR where option developed in PR19)	Required At a programme level (e.g. lists of WINEP actions and sites)
Option Assessment Report (OAR)	Required (limited)* (PR24 investigation confirms environmental issues and informs future option development)	Required For each WINEP action	Required For each WINEP action	Required At a programme level
Cost Estimate (provided in OAR)	Required (preferred investigation option only)	Required	Required	Required (preferred option only)
Benefit Estimate	Not required	Required	Required	Not required

* Option Assessment Report information for a PR24 investigation driver must cover: water company; date; water company contact details; WINEP action ID; primary driver; scale of action delivery; location of delivery; tier 1 outcome; tier 2 goal; tier 3 output; environment risk/issue needing to be addressed; monetised costs information (cost estimate, cost estimate business plan; partner co-funding, partner co-funding business plan; total % partner contribution, total % partner contribution business plan; net cost estimate; net cost estimate business plan)

A best value plan is one that considers factors alongside economic cost and seeks to achieve an outcome that increases the overall benefit to customers, the wider environment and overall society.

3. Restoring & enhancing biodiversity on our landholding

3.1. Managing our landholding for biodiversity improvement

We are not a large landowner – our total estate (which includes all our operational treatment works, reservoirs, pumping stations etc) amounts to fewer than 3,000 hectares (one hectare is a little bigger than a football pitch). As of 2022, approximately 41% of land is being managed for biodiversity (e.g., it has a specific conservation / environmental management plan or conservation tenancy).

The first step towards enhancing biodiversity on our own sites and land is to have an understanding of their current value to the natural environment. Over a five-year period from 2015-2020 we ecologically surveyed all our landholding for sites greater than 0.5 hectares. Following this, Defra's Biodiversity Metric data was used to calculate the quantity and quality of biodiversity on our land.

This tool measures the value of our land for wildlife, producing outputs in biodiversity units (BU). This metric assigns all habitats a unit value according to their relative biodiversity value (e.g. species-rich grassland is more valuable than species-poor grassland). In essence, it converts the features and condition of wildlife habitats into a measurable unit value. These biodiversity units do not equate to a real-world value, e.g., one unit of woodland does not equal one hectare of woodland – instead, it is a way of tracking losses or gains (in the same way as you can track profits and losses financially). We can also use this metric as a way of measuring the change in the value of our landholding to wildlife – as the number of biodiversity units increase, this means that the overall value of our landholding to wildlife increases.

The assessment indicates that:

- Our landholding was valued at 14,348 biodiversity units (BU)
- Sites of less than 0.5 hectares contribute only 395BU (from 1,825 sites) compared to sites of greater than 0.5 hectare contributing 13,952BU (from 333 sites)
- Clatworthy Reservoir supports a total of 1,935BU, equivalent to 13.5% of the total biodiversity units supported by the entire Wessex Water landholding (Figure 5 - Clatworthy Reservoir and surrounding landholding)
- The two sites of Charmy Down and Shapwick Heath also each contribute more than 10% to the landholding's total biodiversity unit value.
- The habitat types on Wessex Water landholdings with greatest biodiversity unit value are neutral grasslands, followed by reservoir and lowland mixed deciduous woodland.

We are also the stewards of 293 hectares of land designated as a Site of Special Scientific Interest (SSSI). This protection recognises that these habitats are the most important areas for wildlife in England. We are committed to managing our Sites of Special Scientific Interest to ensure they can meet and maintain favourable condition. Currently, 93% are reported by Natural England to be meeting the target of being in favourable or recovering condition.

Figure 5 - Clatworthy Reservoir and surrounding landholding

3.1.1. Need for Investment

This section covers the work we have committed to undertake to improve terrestrial biodiversity within our region and as set out in our Biodiversity Action Plan. This includes schemes identified under the following regulatory drivers and obligations:

- The Water Industry Act 1991 and Environment Act 1995 include general duties in respect of conservation, access and recreation including a requirement: *"… so far as is consistent with the functions of the Water Company, to further the conservation of flora, fauna and geological or physiographical features of special interest."* Detailed guidance for achieving this is set out in the Water Industry Code of Practice for Conservation, Access, and Recreation (CAR).
- The Natural Environment and Rural Communities Act 2000 (as amended by the Environment Act 2021), also requires us as a statutory undertaker in exercising our functions to have regard to the purpose of conserving and enhancing biodiversity. We will undertake investigations to assess how our activities on our landholding and working with others can enhance biodiversity across our region and the implementation of measures to deliver enhancement.
- The Environment Act 2021, sets out that we must:
    - achieve the statutory minimum level of biodiversity net gain for all schemes subject to planning permission. We will go further than this and ensure that all our development schemes, irrespective of whether they require planning permission, will achieve no net loss of biodiversity and from 2025, achieve a net overall gain.
    - play our part in achieving the environmental targets set out under the Act, including:
        - halting the decline in species abundance by 2030
        - increasing species abundance by at least 10% by 2042, compared to 2030 levels
        - improving the England-level GB Red List Index for species extinction risk by 2042, compared to 2022 levels
        - creating or restoring in excess of 500,000 hectares of a range of wildlife-rich habitats outside protected sites by 2042, compared to 2022 levels

- Habitats Directive (HD) (now Habitats Regulations) - Action required to improve a site so as to contribute towards meeting conservation objectives of a Natura 2000 or RAMSAR site.

Our duties, aims and targets are influenced by other external directions on biodiversity, including:

- The 25 Year Environment Plan
- The environmental Improvement Plan 2023
- Defra's Integrated Plan for Water delivering clean and plentiful water
- Existing local Nature Recovery Networks, eg, as published by the West of England Nature Partnership
- the lists of Habitats and species of principal importance in England set out by Section 41 of the Natural Environment and Rural Communities Act
- Legal protections given to habitats and species such as the Conservation of Habitats and Species Regulations 2010, the Wildlife and Countryside Act 1981 (as amended), the Protection of Badgers Act 1992 and the Hedgerow Regulations 1997, among others.

In future, we also expect our plans to be influenced by newly created Local Nature Recovery Strategies, Species Conservation Strategies, Protected Sites Plans (created under the Environment Act) and the wider Nature Recovery Network.

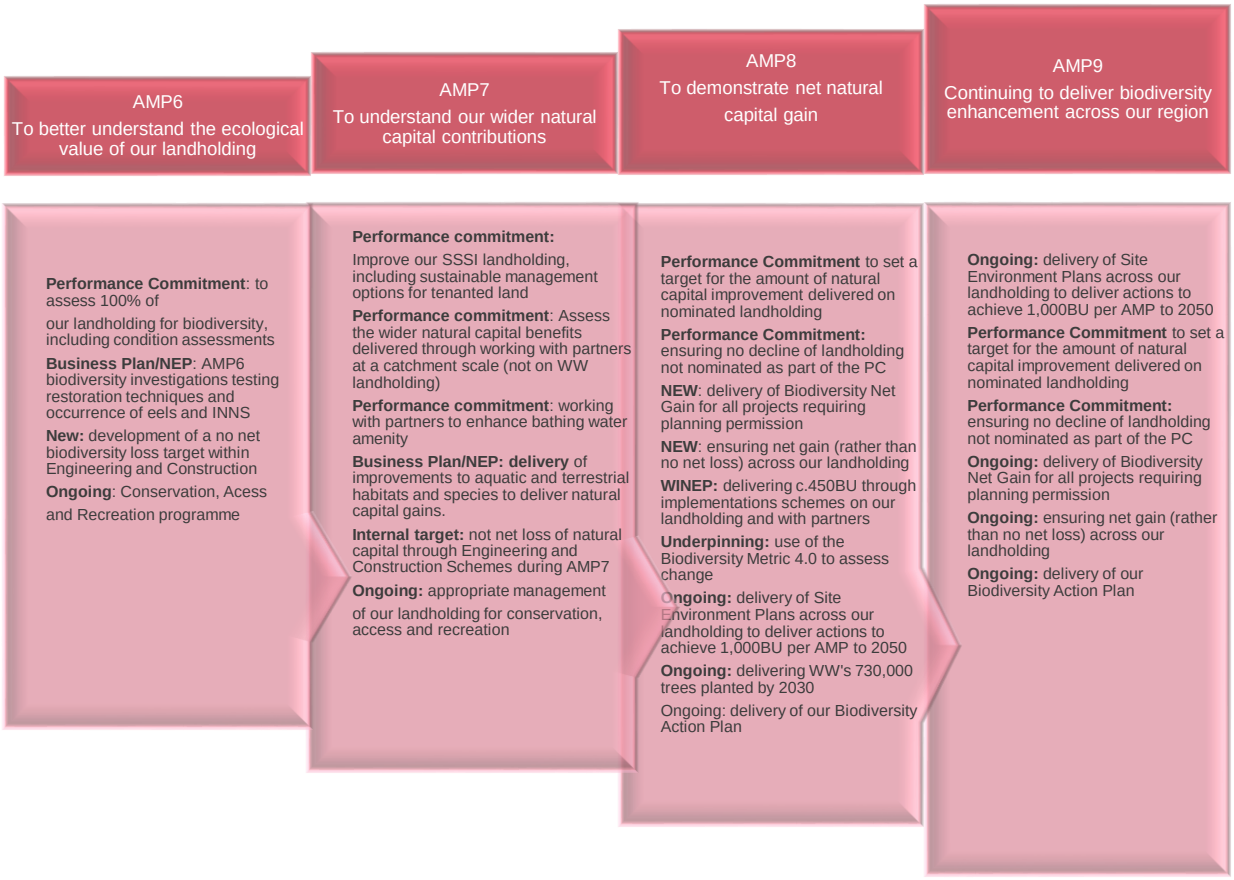
The implementation of these measures will either enhance the natural capital of the land within our region or enable us to better understand how to make improvements in the future. This is part of a complimentary approach to delivering natural capital net gain across our landholding and the region in which we work, aligning with the UK plans and guidance illustrated above.

Our Biodiversity Action Plan sets out how we translate our duties, targets, and commitments into action on the ground as shown in Figure 6. It is influenced by wider company policy and direction, including our:

- Strategic Direction Statement
- Environmental policy
- Current business plan (2020-2025) and emerging business plan (2025-2030).

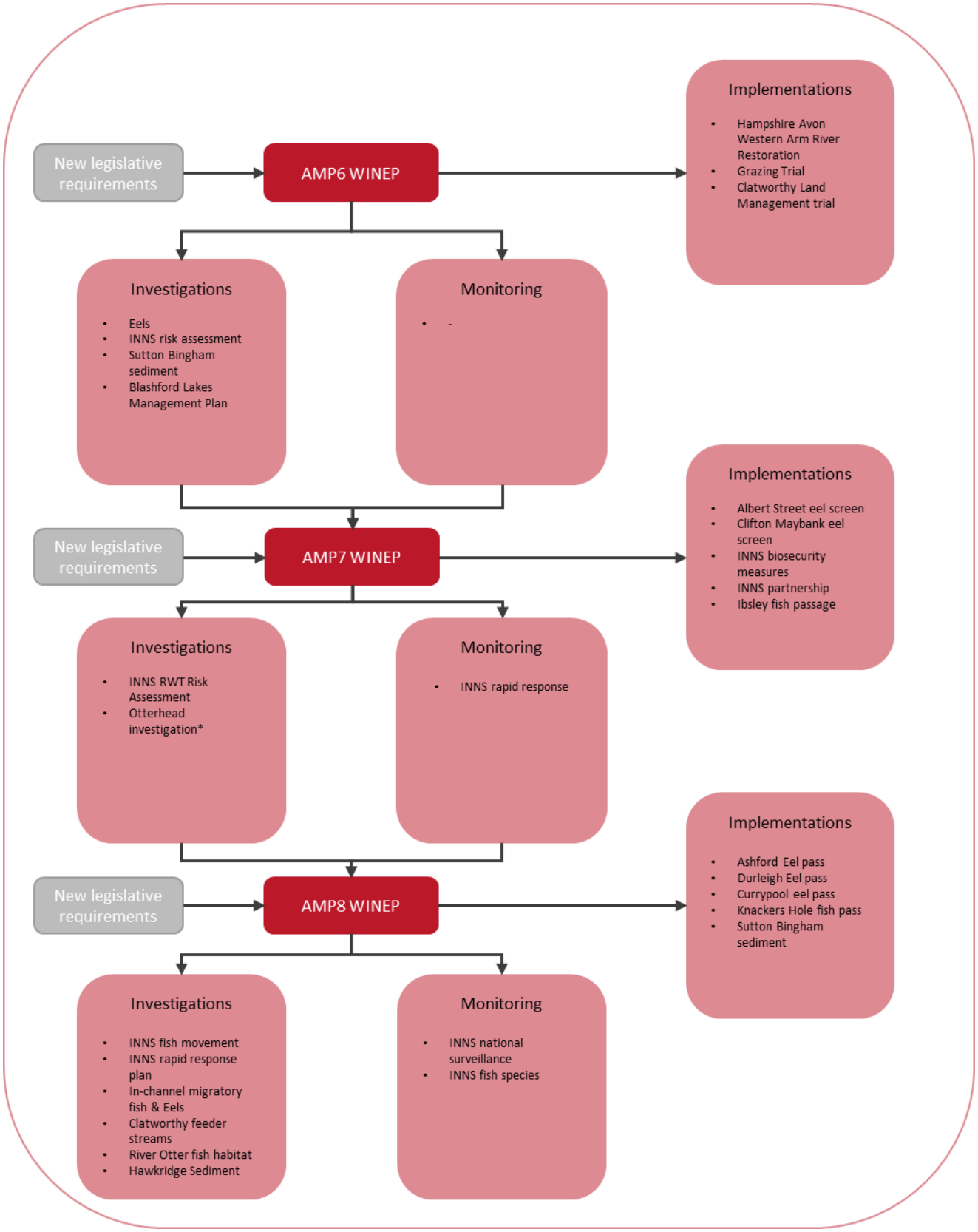
The BAP provides a coherent approach to the natural environment within Wessex Water. It identifies the activities being undertaken or required to conserve and enhance the biodiversity within our landholding. It also seeks opportunities to deliver wider biodiversity and environmental benefits throughout our work, and to respond to new challenges in conservation in the UK.

Figure 6 Environmental Performance Commitments and Sustainability Vision



The investigations and implementation measures broadly follow the process described for water resources (WSX12 – Water Resources Strategy and Investment) and wastewater (WSX16 – Wastewater Networks Strategy and Investment) investigations, with investigations in one investment period informing the implementation measures delivered next. Figure 7 shows how natural capital measures to be delivered in AMP8 have been identified through AMP7 investigations, and the investigations that will be delivered in AMP8.

Figure 7 - Natural capital WINEP investigations and implementation measures



In 1998, we became the first water company to publish a Biodiversity Action Plan (BAP) targeting efforts to conserve and enhance wildlife across the region. Today, the BAP continues to be the overarching strategy for conserving, enhancing and working with the natural environment throughout our business.

Our BAP details our duties, commitments, and targets in fulfilling our aims of conserving and enhancing biodiversity across our region and the actions we will be undertaking to achieve them. We are fortunate to live and work in a region renowned for its wildlife and habitats. Our region contains:

- More than 470 Sites of Special Scientific Interest (SSSI)
- 35 Special Areas of Conservation
- 11 Special Protection Areas
- 27 National Nature Reserves (NNR)
- More than 6200 areas designated as Local Wildlife Sites or Regionally Important Geological Sites
- Eight Areas of Outstanding Natural Beauty (covering over 30% of our region) and two National Parks

AMP8 WINEP investigations on our landholding

In AMP8 we have one WINEP investigation to deliver, summarised in Table 5 and described in the following section.

Table 5: AMP8 WINEP Investigations and our landholding

Primary WINEP driver code	WINEP Action ID	Action name	Number of WINEP actions	Completion date
25YEP_INV	08WW100009a	Peatland Management Investigation	1	31/03/27
		Total	1	

The Government's 25 Year Environment Plan identifies policies to restore and protect our peatlands. This document states that the UK "*peat bogs and fens are important habitats that provide food and shelter for wildlife, help with flood management, improve water quality, and play a part in climate regulation. Most peat soils support ecosystems that are sensitive to human activities including drainage, grazing, liming and afforestation. This makes them susceptible to degradation if poorly managed"* and *"We intend to create and deliver a new ambitious framework for peat restoration in England. Where it is not appropriate to restore lowland peat, we will develop new sustainable management measures to make sure that the topsoil is retained for as long as possible..."*[1]. Based upon this, a goal of the England Peat Action Plan is to ensure that *"all our peatlands, not just deep or protected peat, are responsibly managed, or, in good hydrological condition or under restoration management"*[2].

With reference to Natural England's 'Extent of Peatlands in England' mapping layer, Wessex Water's landholding includes a total of 412ha of peaty soils (soils either defined as 'deep peaty soils', 'shallow peaty soils' or 'soils with peaty pockets') across 172 sites. Our AMP8 WINEP includes an investigation under a 25YEP_INV driver through which we will review all landholdings on peatland across the Wessex Water landholding and undertake an options appraisal/feasibility study for implementation of peatland ecosystem restoration across the Wessex Water estate (AMP9) to meet objectives of the Government's 25 Year Environment Plan.

There are a number of other AMP8 investigations on or surrounding our landholdings, such as catchment delivery (covered in Section 4 - Working in Partnership to Improve and Restore Biodiversity); invasive non-native species

[1] HM Government (2018), A Green Future: Our 25 Year Plan to Improve the Environment, p44
[2] HM Government (2021), England Peat Action Plan, p4

(INNS), fish biodiversity and geomorphology which are covered in the water resource section (WSX12 – Water Resources Strategy and Investment).

AMP8 WINEP implementation actions on our landholding

In AMP8 we have four WINEP implementation actions to deliver on our landholding, which build on from investigations from AMP6 and AMP7, summarised in Table 6 and described in the following section.

Table 6: AMP8 WINEP implementation actions on our landholding

Primary WINEP driver code	WINEP Action ID	Action name	Number of WINEP actions	Completion date
HD_IMP	08WW100008a	Blashford Lakes Management Plan Implementation	1	31/03/2030
NERC_IMP	08WW100069a	Priority Habitats Restoration and Creation	1	31/03/2030
NERC_IMP	08WW100071a	Sustainable Woodland Management	1	31/03/2030
NERC_IMP	08WW100070a	Maximise opportunities for bird species on Wessex Water sites	1	31/03/2030
		Total	4	

The four WINEP implementation actions which will be delivered, build on from our AMP6 and AMP7 investigations and are complimentary of one another. Thus, ensuring the management of our landholding delivers for biodiversity, both for habitats and species.

Blashford Lakes, near Ringwood in Hampshire are part of the Avon Valley Site of Special Scientific Interest (SSSI) and Special Protection Area (SPA) and also designated as a Ramsar site, which recognises wetlands of international importance. The lakes are important for their biodiversity, particularly for bird species that require open lakes with suitable aquatic vegetation for grazing. The lakes are also important for recreation and contain a mixed fish population. Spinnaker Lake is a carp fishery, and also used by a sailing club, while Ellingham Lake is used for water skiing.

Wessex Water owns four of the lakes within the SSSI, whilst others are owned by Bournemouth Water and the Somerley Estate own. Previous investigations have shown that all of the lakes have elevated phosphorus levels and that this could change the nature of the lakes from macrophyte (plant) dominated to phytoplankton (algae) dominated communities, making the habitat unsuitable for diverse fauna and flora. A management plan was developed to maintain the macrophyte-dominated community, which will be implemented in AMP8 through WINEP action 08WW100008a. Our AMP7 WINEP obligations included a project to enhance priority habitats on our own land outside of SSSI areas[3]. This project included a screening phase, which shortlisted three sites to deliver a target of 25ha of improvements in AMP7 over a range of habitat types. These sites are.

- Charmy Down, delivering 12 ha of restored calcareous grassland.

[3] This is a statutory requirement and cannot be funded through WINEP.

- Durleigh wetlands, creating a 6.9 ha mosaic of new native woodland, neutral grassland and seasonal ponds; and
- Bleadon Levels, restoring 18 ha of saltmarsh.

This priority habitat work has been assessed to add an estimated 67.75BU to our landholdings over AMP7. However, if good management practices continue at these sites over the next 10-30 years the net increase in biodiversity as these sites mature could increase from 67.75BU to 445.4BU (nearly 12 times greater).

Our AMP8 WINEP includes a project (08WW100069a) to further improve our landholdings for biodiversity at sites identified through the AMP7 screening but not taken forward at that time. The AMP8 project will work on the restoration and creation of at least a further 15ha of priority habitat with greater emphasis on connectivity based on Habitat Network Mapping and changing management on areas of degraded and poor-quality habitats. Enhanced biodiversity value of sites will be assessed using Natural England's biodiversity metric and has been estimated to be approximately 185BU at maturity.

A further project in AMP8 WINEP (08WW100071a) includes looking at the sustainable management of Wessex Water's woodland landholdings. This project will bring improvement to woodland management which previous investigations and performance commitments in AMP6 and AMP7 highlighted a business need. This work will produce a Sustainable Woodland Management Plan for Wessex Water's woodlands, as well as an Ancient Tree Inventory and Management Plan for all ancient and veteran trees on its landholdings with appropriate management to at least 10 ancient/veteran trees to ensure their longevity. The AMP8 work will ensure that at least 50ha of woodland has habitat management and restoration work, contributing to the Government's 25 Year Environment Plan for the environment as well as at least 10ha of woodland creation, to maximise connectivity and to develop new broadleaf woodland habitat. Enhanced biodiversity value of the sites will be as assessed using Defra's biodiversity metric and has been estimated to be approximately 55BU.

The AMP7 maximising opportunities for birds at our WRC WINEP included a high-level assessment by expert ornithologists on 50 operational waste sites to investigate which species of birds' forage, nest or roost on each site, or could be expected to be found on our sites. These 50 sites were representative of our 400+ sites. For each of the 50 sites, an ornithologist suggested habitat works to increase bird potential. From these recommendations, the AMP7 project identified the practical measures needed to enhance sites in order to maximise migratory, breeding and over-wintering success for identified bird species. Ten sites received focused habitat enhancement measures to demonstrate what can be implemented to make measurable changes to birds and demonstrate the principles to the wider business.

The AMP8 WINEP work (08WW100070a) on birds utilising our Wessex Water's sites will be two-fold, we will build on the work delivered in AMP7, by utilising the previous site assessments and enhancement matrix to identify an additional 20 operational sites and deliver habitat enhancements to maximise opportunities for birds of conservation concern. Sites which currently offer poor habitat opportunities for birds will be prioritised as will those sites with the potential to support assemblages of S.41 Priority Species (birds) and Birds of Conservation Concern. Habitat enhancements will focus on nesting and foraging habitat to augment the feeding opportunities that the filter beds provide. By providing habitat changes that are maintained through grounds maintenance contracts (for example) we will see long-term improvements to local habitats for birds.

In the second part of the AMP8 WINEP action on birds we are joining with a national scheme with multiple water companies to provide habitat enhancement for hirundine (swallows and martins) and swifts. The aim of this scheme is to provide habitat enhancement for these species which utilise waterbodies for feeding. This scheme will deliver.

- Monitoring survey/research targeting these species,
- Provision for nesting opportunities on buildings and towers,
- Monitoring of nest boxes and potential use of acoustic lures, where appropriate
- Supply records to national data sets
- Develop best practice guidance that can be applied to capital projects where appropriate.

In addition, from November 2023 any improvement scheme requiring planning permission will deliver 10% biodiversity net gain as detailed in the Environment Act. These offsets may be delivered on Wessex Water owned land but more likely will be delivered on third party land either in partnership or through an approved biodiversity market or credit system.

Similarly, we will ensure that all capital improvements which fall under Permitted Development Rights, not requiring planning permission, will achieve no net loss in biodiversity. This will deliver through a voluntary offsetting mechanism prioritising improvements to landholding rather than the purchase of external offsets.

Tree Planting

Trees, hedgerows and woodland are a valued part of our wider landscape as well as forming a key habitat for many species. Alongside their value for wildlife, woodlands play an important role in capturing carbon, keeping our rivers cool, improving water quality and providing better flood protection.

Water companies in England have an ambitious plan to plant 11 million trees as part of wider commitments to improve the natural environment and to support our goal of achieving a net zero carbon water industry by 2030.

However, we want to ensure it achieves multiple benefits from the planting for ecosystem services where possible, so we will be looking for tree planting opportunities through the other workstreams included in this action plan. For example, work has been carried out in liaison with farmers to plant new hedgerows (including hedgerow trees) and buffer strips as part of catchment management approach to improve water quality.

On our own land, and through our engineering and operational activities, we interact with trees on a daily basis. The contribution trees and hedgerows across our region play in supporting biodiversity and defining landscapes is valued, and the business will seek to maintain existing trees and hedgerows where possible. It is recognised that ancient woodland and veteran trees take hundreds of years to establish and require particular care as they are an irreplaceable habitat. Alongside their benefits, trees are associated with risks which require management, and while we will seek to maintain them wherever possible, there will be occasions when management is required to prolong the life of a tree, condition of a woodland or to deal with health and safety issues.

Figure 8 - Wessex Water's staff forest at Durleigh wetland and annual tree planting day as part of the long service award

To deliver our aims, we will:

- Seek opportunities to increase planting on our own landholding. It is recognised that our landholding is already constrained by existing land uses, but where sites or habitats can be improved by additional planting, this option will be taken.

- Include options for additional tree planting on our capital development programme, where feasible. We will integrate new trees and woodland in the design and implementation of nature-based solutions.
- We will seek to work with partner organisations and stakeholders to engage with small, medium and large-scale proposals to increase planting throughout our river catchments.
- When working in catchments directly with landowners and managers, look to deliver options which include tree planting to achieve multiple benefits.
- Engage with both our staff and local communities to support tree planting initiatives to benefit both biodiversity, but also access to nature, mental health and volunteering opportunities.
- Plant a tree every five years for each employee to recognise their length of service and contribution to the company in staff forests. These staff forests will be at locations where there is public access to allow both staff and other visitors to benefit from the woodland. The first staff forest is being planted at Durleigh wetlands, as illustrated in Figure 8.

It should be noted that due to the size of Wessex Water's landholding, we will not be able to plant all 730,000 trees required to fulfil the WaterUK commitment on our landholding and so will need to work with partners to enable this delivery. The details of our tree planting requirement have been included in this section, rather than repeated elsewhere in this chapter.

3.1.2. Management Control

All of the biodiversity implementation schemes described above have been based on prior investigations undertaken in AMP7. In each case a detailed investigation has been undertaken, with updates presented periodically to our environmental regulators (EA and NE) and relevant stakeholders or expert groups. This process is illustrated in Table 7 below, highlighting the specific implementation scheme, duration of investigation and stakeholder engagement to inform actions to be undertaken in AMP8.

Table 7: Basis for Biodiversity Implementation Actions

WINEP Action ID	Action Name	Investigation Overview	Stakeholder Engagement	Options Appraisal
08WW100069a	Priority Habitats Restoration and Creation	AMP7 WINEP investigation to enhance priority habitats on our own land, identifying sites for further enhancement by 2030	Natural England, FWAG, Somerset Wildlife Trust, Somerset Council, Environment Agency	Y
08WW100071a	Sustainable Woodland Management	Actions identified through previous investigations and performance commitments in AMP6 and AMP7 highlighted a business need by 2030	Natural England, Environment Agency	Y
08WW100070a	Maximise opportunities for bird species on Wessex Water sites	AMP7 investigation included a high-level assessment by expert ornithologists on 50 operational waste sites by 2030	Natural England, WaterUK CAR Network	Y

All these investigations highlighted prioritised action to improve biodiversity at these sites across our landholding and have been approved by our regulators following extensive discussion. Further assessments have been undertaken using the Biodiversity Metric 4.0 to indicate the potential biodiversity improvements estimated by 2030

and then once those measures achieve maturity. We are confident that these measures are needed and the action presented is justified and aligns with legislative requirements.

The AMP7 Peatland Investigation (08WW100009a) has been highlighted by the EA and NE during the Risk and Issues element of the WINEP development. This is a non-statutory requirement to support the Government's 25 Year Environment Plan. Whilst this is non-statutory, we are satisfied that this investigation is justified as it will highlight the extent and condition of peatland habitat across the Wessex Wwater region and identify management actions to conserve and enhance this rare habitat, contributing not only to biodiversity benefits but longer term carbon sequestration.

3.1.3. Best Options for Customers

As detailed above, the development of the Peatland investigation and three implementation actions derived from a sound science and evidential approach.

The Peatland investigation has used best available information to map the current peatland extent within Wessex Water's land ownership and will use best practice measures to assess habitat condition. The investigation will include an option appraisal to assess actions to be recommended for implementation at PR29.

Wessex Water is working closely with Dorset Peat Partnership, via the Dorset Catchment Partnership, to deliver a Nature for Climate Peatland Grant Scheme (NCPGS) in AMP7 assessing over 80 sites and prioritising 16 sites for restoration. These sites had in-depth surveys of vegetation, peat depth and condition, water levels at different times of year, and the implications were assessed of potential restoration on any historic environment features present. Restoration plans have been drawn up for each site and submitted to the NCPGS for consideration for Restoration Grand funding. This project has been so successful that additional funding has been awarded to increase the number of sites assessed.

We will work closely with the Dorset Peatland Partnership to apply their learning and experience from this NCPGS project to those sites on our landholding, ensuring a cost effective and best practice approach.

As detailed in the sections above, the three implementation schemes build on investigations and options appraisals undertaken in AMP7. Part of the 'Maximising Habitats for Birds' project will include a multi-water company project to provide habitat enhancement for hirundine (swallows and martins) and swifts. This will use data and experience from other companies and wider partners to ensure that the most effective enhancements are implemented.

3.1.4. Robust and Efficient Costs

Section 2 of the main business plan narrative describes how we have ensured our proposals are efficient across all the price controls, as well as explaining how we estimate efficient costs for new projects. Through external benchmarking and previously competitively tendered work, we have demonstrated that our cost estimates are efficient and competitive compared with the marketplace.

The proposals detailed in this section cover improvements and investigations associated with improving biodiversity. The proposals correspond to their appropriate line drivers in the PR24 data tables as summarised in Table 8 below.

Costs for these schemes have been developed in the following ways:

- Using actual costs from similar projects within AMP7, for example Catchment Biodiversity schemes
- External consultants, e.g. Footprint Ecology, to develop costings for bird habitat improvements
- All biodiversity delivery work has been tendered externally.

Table 8: Improving Biodiversity PR24 data tables

Table	Lines	Line Description	Capex (£m)	Opex (£m)	Totex (£m)
CW3	CW3.1 - CW3.3	Biodiversity and conservation; (WINEP/NEP) water (capex, opex and totex)	2.6	2*	4.1
CWW3	CWW3.85 - CWW3.87	Catchment management - habitat restoration; (WINEP/NEP) wastewater (capex, opex and totex)	0.9	2*	2.9
CW3	CW3.37 - 39	Investigations total; (WINEP/NEP) water (capex, opex and totex)	0.9	0.0	0.9
TOTAL			**4.4**	**4.0**	**7.9**

N.B. Due to rounding, some totals may not correspond with the sum of the separate figures. * Tree planting commitment split 50% Water Resources Price Control and 50% Wastewater Network Plus Price Control.

3.1.5. Customer Protection

Customers will be protected if the investment is cancelled, delayed or reduced in scope through the following performance commitments and their associated performance commitment:

- Biodiversity Performance Commitment: OUT1-3

Further details can be found in WSX04 (A Summary of Our Customer Research) and WSX47 (Outcomes - table commentary).

4. Working in partnership to improve and restore biodiversity

4.1. Need for Investment

Catchment scale work is about minimising the effects of human activity on river systems, wetlands and groundwater by directly managing inputs to rivers and the land surrounding them (the catchments). We work at a catchment scale and with partners to ensure the environmental integrity and biodiversity of river and groundwater catchments are in good or excellent condition. We will encourage greater consideration of the ecosystem services provided by catchments within water policy, regulation, investment planning and the actions of other interests.

There are three drivers for catchment scale work.

- To achieve the most sustainable solution to reducing pressures on water treatment processes where pollutants are affecting the quality of raw water. We need to remove pollutants from drinking water and for us working in the catchment also means minimising the inputs of diffuse pollution – mostly nitrates and pesticides – into the catchments surrounding our reservoirs or groundwater boreholes. This helps us to provide clean drinking water without using excessive treatment and chemicals, while including biodiversity options in the solutions provided.
- To contribute to achieving the holistic aims of the Water Framework Directive – that all waterbodies meet good ecological status. While our own work and investment will contribute to reducing pressures from our sector, without wider action taken across all sectors, we will not achieve the end goal of waterbodies in good status supporting the healthiest possible levels of biodiversity (including fish and other aquatic species).
- Investigating the impact of our assets on the aquatic and terrestrial environment to ensure our decisions are based on sound science, while testing innovative options to environmental challenges.

Since 2005 we have chosen to engage with land managers to tackle the sources of pollution affecting our assets through our catchment management approach. We have expanded this approach to include work with farmers to reduce nutrients entering rivers such as the Tone, Parrett, Stour and Yeo as an increasingly sustainable means of lowering overall levels of pollution. We are currently providing advice to landowners and managers covering more than 30,000 hectares for water protection, biodiversity and offsetting.

We are now working to deliver biodiversity improvements alongside water quality measures in order to maximise the benefits obtained. This can take the form of reversion of arable fields to conservation grassland habitats, planting of arable margins with perennial nectar sources for pollinators, creating new hedgerows or planting riverbank trees and new woodland. Much of our work is central to the delivery of the Water Framework Directive. We contribute to river basin management plans by working with the Environment Agency and Natural England on minimising impacts on rivers from discharges of treated sewage effluent and abstractions for drinking water, and by research on the impacts of water company activities on waterbodies and other sensitive sites.

To deliver our aims, we will:

- ensure that work within our catchments explores the widest range of opportunities for environmental gain, working in partnership with other sectors and organisations to deliver a healthy natural environment
- fully integrate biodiversity options into our catchment management approach and work with farmers and landowners across our region to boost biodiversity while reducing nutrients and other pollutants
- where possible support alternatives to traditional approaches to supply and treatment that maximise the benefit to biodiversity
- continue to deliver environmental investigations in collaboration with the Environment Agency, Natural England and local/national stakeholders to answer questions and identify solutions to current and emerging challenges.

Investigations

In AMP8 we have one catchment biodiversity investigation in the Deans Farm catchment, located to the northeast of Salisbury (listed in Table 9).

Table 9 AMP8 WINEP investigations on a drinking water catchment

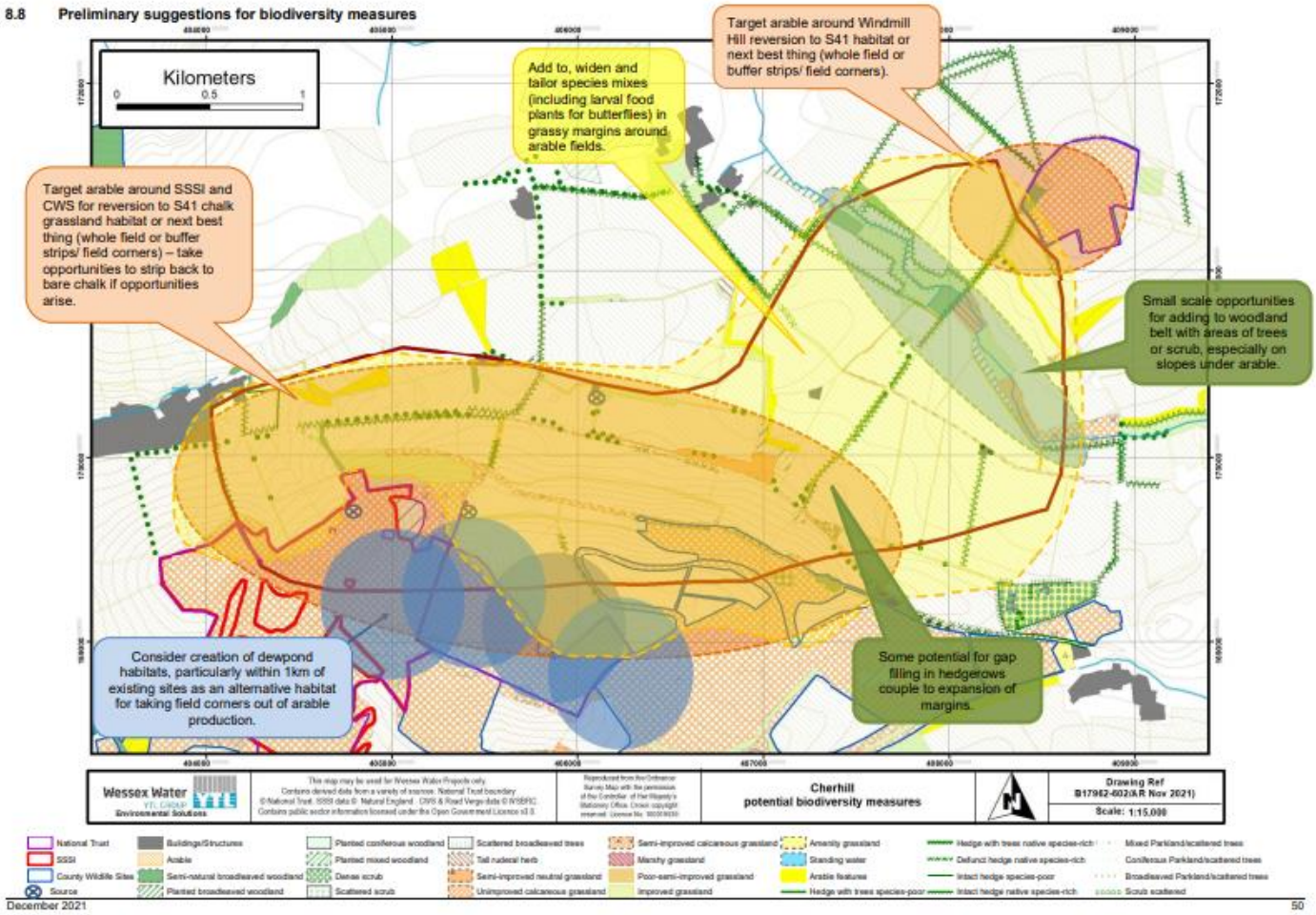
Primary WINEP driver code	WINEP Action ID	Action name	Number of WINEP actions	Completion date
NERC_INV	08WW100004a	Dean's Farm Catchment Biodiversity Investigation	1	01/03/2027
		Total	1	

This investigation will deliver biodiversity opportunity maps as described in the following section and illustrated in Figure 9, and identify biodiversity improvement measures that will be implemented through an AMP9 WINEP implementation action. We have two further investigations to understand the current status of habitats outside of our landholding and the role of field operations in achievement of environmental objectives. These are linked to our wastewater operations (related to nutrient concentrations) and can be found in the WSX16 - Waste Water Networks Plus Strategy and Investment section of the plan:

- Partnership investigation into opportunities for minimising floating plant dominance in the Somerset Levels and Moors Ramsar
- Partnership investigation into sea grass and saltmarsh restoration in Poole Harbour

Our AMP8 wetland investigation, also described in WSX16 - Wastewater Networks Plus Strategy and Investment, will assess the benefits (including biodiversity) of different types of wetlands Wessex Water delivered in AMP7 and how these benefits change over time. The wetlands monitored will include those installed on our own landholding and those on third party-owned land.

Figure 9 - Example of catchment biodiversity opportunity mapping from AMP7 investigation in Cherhill catchment



Implementation Schemes

In AMP8 there are six WINEP implementation actions to deliver within drinking water catchments. The implementations all build on from our AMP6 and AMP7 investigations, summarised in and described in the following section and Table 10.

Table 10: AMP8 WINEP Implementation for Catchment Biodiversity

Primary WINEP driver code	WINEP Action ID	Action name	Number of WINEP actions	Completion date
NERC_IMP	08WW100003a	Poole Harbour Safeguard Zones Biodiversity Delivery	1	01/03/2030
NERC_IMP	08WW100064a	Drivers Bridge Catchment Biodiversity Delivery	1	01/03/2030
NERC_IMP	08WW100065a	Cherhill Catchment Biodiversity Delivery	1	01/03/2030
NERC_IMP	08WW100066a	Goodshill Catchment Biodiversity Management	1	01/03/2030
NERC_IMP	08WW100062a	Shepherd Shore Catchment Biodiversity Delivery	1	01/03/2030
NERC_IMP	08WW100063a	Upper Tone Catchment Management Delivery	1	01/03/2030
		Total	6	

Through previous AMPs, work has been carried out with farmers to change land management practices to reduce pesticide and/or nitrogen losses to improve water quality either entering surface water reservoirs and/or reduce nitrogen leaching into protected watercourses and groundwaters. In an AMP6 WINEP investigation we looked at the opportunities to deliver multiple benefits through catchment delivery work, delivering improvements to biodiversity as well as water quality. Using the findings from that investigation, our AMP7 WINEP included five outputs that introduced biodiversity options into our catchment delivery programme. 11 shows the estimated BU increase from our AMP7 catchment biodiversity delivery programme. However, this estimate will increase to approximately 550BU when the water quality catchment delivery measures are included as these cover a much larger area.

Figure 10 Hedgerow planting within Ashford catchment to increase biodiversity and connectivity and limit pesticide getting into reservoirs

Figure 12 Neutral grassland creation on a farm to deliver nitrogen off-setting and biodiversity delivery in Poole Harbour catchment

Table 11: Estimated Biodiversity Units delivered through AMP7 catchment biodiversity WINEP actions

Catchment	Targeted outcome/area of catchment improved for biodiversity (ha)	Estimated BU increase
Ashford	15.5	48
Durleigh	7.5	37
Luxhay and Leigh	12.0	39
Sutton Bingham	16.0	54
Poole Harbour	100.0	150
Total	**151.0**	**328**

Our AMP7 WINEP also included investigations into opportunities for catchment biodiversity improvements in groundwater and reservoir catchments not previously investigated. In AMP8 we will move into delivery phase with biodiversity measures within these catchments. Opportunity mapping will occur in a further groundwater catchment, which will move into the delivery phase of catchment biodiversity management schemes in AMP9. These catchments are all listed in Table 12. Each catchment has its own opportunity map which looks into the biodiversity habitats and S.41 species that are associated with each catchment and a minimum biodiversity target to deliver in hectares which is included as a WINEP action. The types of work will include arable reversion to species-rich meadows/acid grassland-heath mosaic/fen/rush pasture, nectar-rich field margins, new native woodlands, new hedgerows and hedgerow trees. For the first time, more short-term biodiversity options will be available for farmers to move around their farm, such as bird-crop mixes, pollen and nectar-crops which will be within farm rotations. The work will create biodiversity-rich networks within intense arable areas so wildlife can survive and move through farmed landscapes, whilst benefitting the farm and the wider catchment and our water sources through improvements in water quality. We are being ambitious as we aim to deliver more than 210ha of habitat improvement through catchment management areas by 2030 through a mixture of long-term wildlife measures and nectar/seed rich areas which can be moved around farmed landscapes.

This work will deliver towards a number of national drivers, such as the Government's recently published 25-year Environment Plan, Water Industry Act, Biodiversity 2020, Wessex Water's Biodiversity Action Plan, and National Pollinator Strategy.

Table 12: AMP8 Catchment biodiversity WINEP actions - investigations and implementation measures

Catchment	Targeted outcome/area of catchment improved for biodiversity (ha)	Estimated BU increase
Dean's Farm	Opportunity mapping (investigation)	n/a
Cherhill	8	13
Divers Bridge	5	13
Durleigh Reservoir (River Tone)	60	144
Goodshill	5	13
Shepherd's Shore	8	13
11 Groundwater catchments within the wider Poole Harbour Catchment	130	504
Total	**216**	**701**

Partnership Projects

As part of our wider Biodiversity Action Plan, we support partnership projects delivered through our Wessex Water Foundation. Our Partners Programme has supported four projects throughout AMP7 to deliver wider biodiversity and community benefits across our region. These projects are typically delivered by Wildlife or Rivers Trusts, where funding supports both project officers and delivery, to achieve wider environmental outcomes. The projects supported during AMP7, are described in Table 13 below:

Table 13: Partners Programme Projects supported during AMP7.

Project Name	Partner(s)	Description
Wider Wylye Strategy	Wessex Rivers Trust, Wiltshire Wildlife Trust	To enhance the River Wylye catchment for wildlife and people, while also increasing the resilience of this unique chalk stream in the face of our rapidly changing climate.
Dorset Wild Rivers	Dorset Wildlife Trust, FWAG, Dorset AONB	Delivering biodiversity enhancements that support multi-functional water environments in Dorset
Wilder Waterways	Bristol Avon Rivers Trust, Avon Wildlife Trust	Delivering and promoting a catchment-based approach to enhancing the natural capital of the Land Yeo river and its surrounding landscape.
A Better Biss Approach	Wiltshire Wildlife Trust	Restoring and delivering benefits to the River Biss and its tributaries

These projects are delivered via collaborative working between wildlife organisations and local communities to deliver environmental outcomes. Wessex Water strongly supports these projects with data, evidence and shared learning on effective delivery strategies. Much of the learning from these projects can then be replicated by Wessex Water to further enhance our own landholding or by delivering demonstration projects which can be used to educate wider farmers, land managers and stakeholders.

We will continue to support the Partners Programme throughout AMP8, with a call for projects in autumn 2024.

4.2. Management Control

All of the implementation schemes described above have resulted from investigations and opportunity mapping undertaken in AMP7. These have been delivered in accordance with the Measures Specification Forms required at the start of AMP7 and agreed with the EA and NE. Delivery of these investigations and recommendation of implementation actions has been undertaken with the EA and NE, as well as the individual land owners and managers within these source protection zones, to ensure that they are appropriate and practicable for their farm business. Table 14 below highlights the relevant AMP7 investigations which have informed the implementation to be undertaken during AMP6.

Table 14: AMP7 Investigations and opportunity mapping informing AMP8

AMP7 WINEP ID	Investigation Name	Regulatory Date
7WW201058	Briantspuddle DrWPA - biodiversity investigation with catchment scheme nitrate	31/03/2022
7WW201059	Cherhill DrWPA - biodiversity investigation with catchment scheme nitrate	31/03/2022
7WW201061	Diversbridge DrWPA - biodiversity investigation with catchment scheme nitrate	31/03/2022
7WW201062	Durleigh Reservoir DrWPA - biodiversity investigation with catchment scheme River Tone u/s Firepool Locks Pesticides and metaldehyde	31/03/2022
7WW201063	Goodshill DrWPA - biodiversity investigation with catchment scheme nitrate	31/03/2022
7WW201064	Litton Cheney DrWPA - biodiversity investigation with catchment scheme nitrate	31/03/2022
7WW300298	Shepherd's Shore - NERC biodiversity investigation	31/03/2022

The Deans Farm catchment investigation (08WW100004a) has been identified by the EA and NE during the 'Risk and Issues' stage of WINEP development, highlighting the opportunity for potential biodiversity improvements alongside wider interventions to reduce nitrate leaching to groundwater.

4.3. Best Options for Customers

As described above, these implementation schemes have been developed as a result of investigations and catchment opportunity mapping undertaken in AMP7. The options identified have been appraised to ensure that they are possible and able to be enacted by the relevant landowners or land managers to deliver the greatest level

of biodiversity gain. These have been discussed with our regulators and we are confident that these intervention actions are appropriate.

The Deans Farm investigation benefits from the approaches undertaken elsewhere to undertake catchment biodiversity opportunity mapping at our source protection zones in preceding AMPs.

4.4. Robust and Efficient Costs

Section 2 of the main business plan narrative describes how we have ensured our proposals are efficient across all the price controls, as well as explaining how we estimate efficient costs for new projects. Through external benchmarking and previously competitively tendered work we have demonstrated that our cost estimates are efficient and competitive compared with the marketplace. The costs associated with these interventions also has the benefit of being based on wider work undertaken by Wessex Water in recent years, for example:

- Biodiversity management on our own landholding through our AMP7 SSSI performance commitment and wider grounds maintenance contracting.
- Experience of farm and biodiversity-based interventions associated with our nitrate reduction work in Poole Harbour, including the Defra funded ELMs Test and Trial, wider phosphorus Catchment Nutrient Management work and our experiences with emerging catchment markets elsewhere.
- Competitively tendered land and biodiversity management interventions.

The proposals detailed in this section cover improvements and investigations associated with improving biodiversity. The proposals correspond to their appropriate line drivers in the PR24 data tables as summarised in Table 15 below.

Table 15: Improving biodiversity PR24 data tables (Partnership working)

Table	Lines	Line Description	Capex (£m)	Opex (£m)	Totex (£m)
CW3	CW3.1 - CW3.3	Biodiversity and conservation; (WINEP/NEP) water capex, opex and totex	3.1	0.0	3.1
CW3	CW3.37 - 39	Investigations total; (WINEP/NEP) water (capex, opex and totex)	0.2	0.0	0.2
CW2	CW2.6	Partners Programme	0.0	0.4	0.4
TOTAL			**3.3**	**0.4**	**3.7**

N.B. Due to rounding, some totals may not correspond with the sum of the separate figures.

4.5. Customer Protection

Customers will be protected if the investment is cancelled, delayed or reduced in scope through the following performance commitments and their associated performance commitment:

- Biodiversity Performance Commitment: OUT1-3

Further details can be found in WSX04 (A Summary of Our Customer Research) and WSX47 (Outcomes - table commentary).

5. Ongoing monitoring and management

5.1. Need for Investment

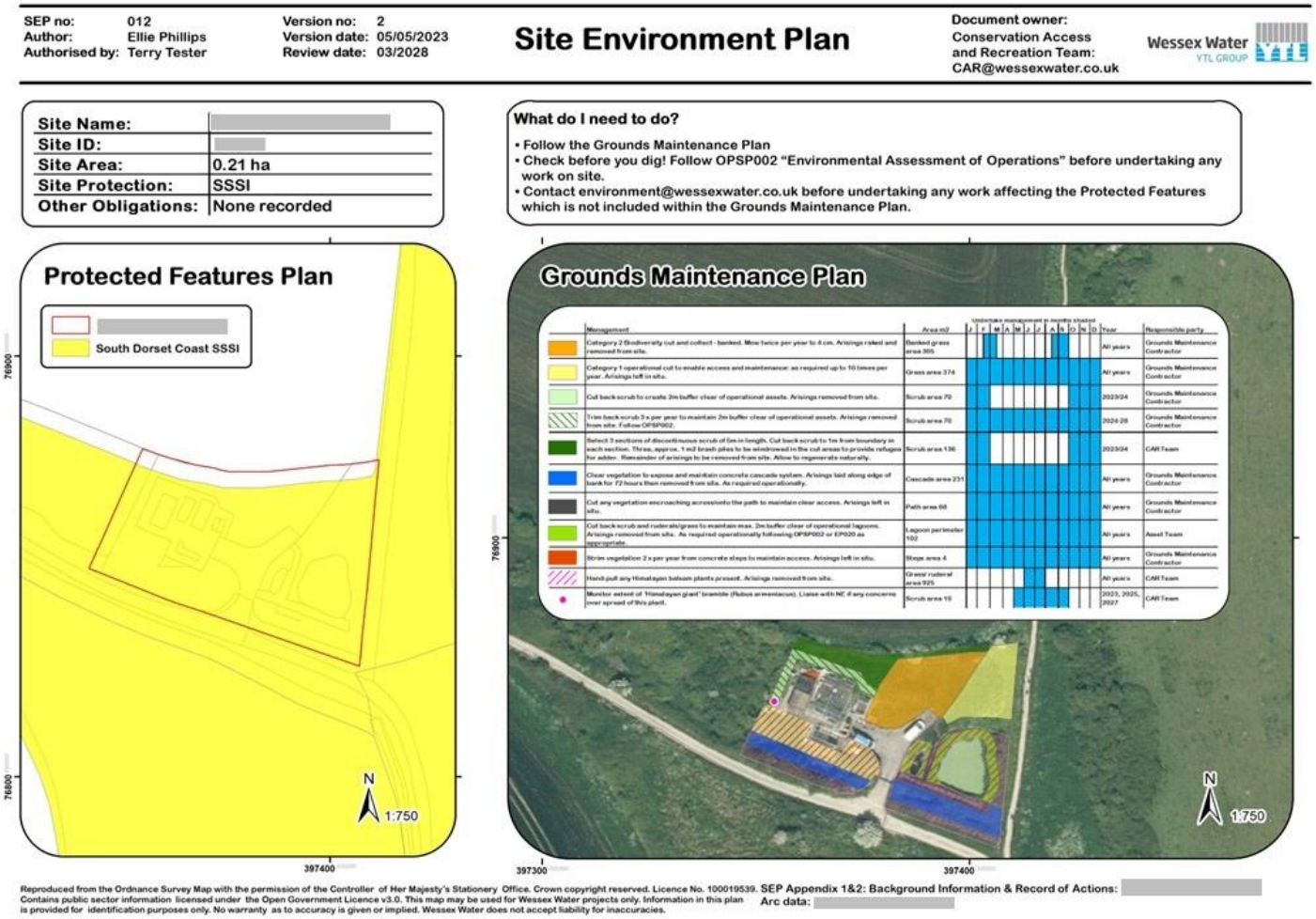
Wessex Water is the custodian of almost 293 ha of land which is designated as a SSSI. This land, which has been identified as some of the most important areas for nature conservation in England, often has overlapping European (Natura 2000) designations and is a high priority for conservation management. Our SSSI portfolio includes land which is managed in-house for direct operational purposes and land held for source protection purposes, which is usually leased to third parties. The condition of just over 93% of our SSSIs is assessed by Natural England as being favourable or recovering. Our AMP7 SSSI Performance Commitment focussed on better understanding the reasons for the current biological condition of our SSSIs, and either drawing up and implementing appropriate management or facilitating appropriate management by our tenant, as applicable. Implementing this performance commitment has greatly advanced our understanding of what is needed at each SSSI and how to achieve what is required. We have established good relationships with local Natural England Advisers and with our tenants, which is key to sustaining the benefits achieved in AMP7. Biological systems require consistency of management – and time – to achieve the maximum environmental outcome from any management inputs. Consistent with our duties to manage our SSSIs, our commitment to the management of these sites, and appraisal of the efficacy of our management, remains ongoing into AMP8.

Figure 14 Sand Lizard at Upton Heath SSSI

The implementation of the AMP7 SSSI performance commitment resulted in the development of the format of our management plans for operational sites (“Site Environment Plans”). The plans now integrate more efficiently with other grounds maintenance prescriptions for operational sites, and, critically, document the key targets and indicators of success for the site in question and impose review dates for the management.

Our statutory nature conservation sites represent only around 10% of our owned landholding: non-statutory (‘local’) wildlife sites and sites which host wildlife-rich habitats have the potential to make an important contribution to the biodiversity of our region. The Environment Act 2021 has during AMP7 placed increased onus on Wessex Water to restore wildlife-rich habitats outside of statutory sites. Our biodiversity performance commitment during AMP6 resulted in comprehensive habitat mapping of our sites over 0.5 ha. Ecological survey data gathered over the course of this exercise have been used during AMP7 to extrapolate the biodiversity value of our estate, in Biodiversity Units (BU’s). Small sites of less than 0.5 ha contribute proportionately fewer BU’s to the total value of our landholding, which informs a strategy that it is more efficient to work on the restoration of sites of greater than 0.5 ha in size. Certain habitat types have also been found to yield higher BU’s on our landholding.

Figure 13 Example of a Site Environment Plan for a WRC



Improvement of the previous Site Environment Plan format (Figure 13), combined with new information on the 'valuation' of our landholding, has put us in a position to target efforts towards maximising biodiversity enhancement at relevant sites. Current resource provides for most conservation management through standard Grounds Maintenance operations, with more technical conservation management delivered only on statutory sites (i.e. SSSI's) and, in accordance with the Water Industry Code of Practice on Conservation, Access and Recreation, on sites which have complex or multiple (and potentially conflicting) functions, such as visitor sites.

In AMP8, with the introduction of Site Environment Plans and hence more technical conservation management onto many more sites, a prioritisation exercise of the known wildlife-rich habitats (i.e. data from AMP6) based on designated status, proximity to statutory and non-statutory sites, and on size (i.e. following the Lawton principles of 'bigger, better and more connected'), has produced a list of sites which would represent the most efficient use of resources to deliver our duties towards the Environment Act targets. Those sites which will be subject to conservation management through a Site Environment Plan are distinct from the land which we have nominated for the AMP8 biodiversity performance commitment because these numerous, geographically dispersed sites would represent an inefficient way of delivering the stakeholder engagement, management planning and biodiversity accounting requirements of this performance commitment. Our approach to the AMP8 performance commitment, to nominate large tracts of land which give a genuine representation of the custodianship of land during the exercise of Wessex Water's statutory functions, intends to provide a proxy for what is achievable on our wider operational landholding. Implementation of these Site Environment Plans will form a significant part of the AMP8 performance commitment requirement to demonstrate to our stakeholders that our wider (i.e., non-nominated) landholding is not deteriorating in biodiversity value in general. Conservation management of our operational land holding on both

land nominated for the AMP8 biodiversity performance commitment and on land subject to a Site Environment Plan will, combined with the WINEP, tree planting proposals and partnership work described above, achieve in AMP8 the ‘installation’ of habitats which have the potential to deliver at least 1,000 BU’s on the Wessex Water landholding at maturation.

Figure 15 - Our landholding at Bleadon Levels, nominated for the AMP8 Biodiversity PC

Working to protect and enhance biodiversity is only part of the story. We need to report our achievements, data and information so that our work can contribute to national and regional targets and to demonstrate our progress to our customers and wider stakeholders.

Advances in biodiversity accounting over the past five years provide a tool – currently Metric 4.0 – to monitor and report our achievements in a consistent and recognised format; however more investment is needed to develop cost-efficient methods to collate the necessary information on habitats and their condition which underpins these calculations. The comprehensive habitat mapping of our sites over 0.5 ha achieved through our AMP6 biodiversity performance commitment required significant resource. Emerging earth observation technology has the capability of identifying habitats and, potentially, their condition: the methods employed in AMP6 are no longer the most cost-effective way to track and report the BU value of our landholding. The AMP8 biodiversity performance commitment is an opportunity to ground-truth the capability and accuracy of this technology: we will test and refine the assessment and reporting of the BU value of nominated land with the aim of adopting this technology as a cost-efficient method to enable more extensive tracking and reporting in future AMPs.

5.2. Management Control

During AMP7, our SSSI performance commitment has involved survey and research to understand the current condition of our SSSIs and the prescription and implementation or remedies aiming to achieve and maintain favourable condition. Actions required to complete the performance commitment were agreed with Natural England at the start of the AMP, and local Natural England officers were engaged during the course of the performance

commitment to agree management detail of specific sites. Continuation of all management prescribed through this process represents ongoing implementation of our regulator's advice.

Also during AMP6, our biodiversity performance commitment resulted in the collation of geospatial data of our wildlife-rich habitats on sites over 0.5 ha. The availability of these data, coupled with an exercise during AMP7 (7WW200623) to extrapolate the condition and biodiversity value (in BU's) of each of these areas has provided a new overview as to the potential land with wildlife-rich habitat which could be enhanced to uplift the biodiversity value of the Wessex Water estate.

AMP6 biodiversity performance commitment has hence demonstrated the value of holding up-to-date habitat information for our landholding. However, it also demonstrated that the resource required to assess each site manually – either as a physical survey or a desktop exercise – is significant. Discussions with earth observation software providers have indicated that the process could potentially be at least part-automated and potentially fully automated in future: habitat classification and mapping is within the current capability of the software, and software providers are working with Natural England to develop the capability to automate condition assessments also.

5.3. Best Options for Customers

The AMP7 SSSI performance commitment involved the production of land management reviews. These comprehensive and audited reviews of the site in question's current site management and status, management sustainability issues, operational constraints and future operational constraints informed the management prescribed for each site, which is to be continued forward into AMP8. Consultation with 'on the ground'/local Natural England advisers formed an integral part of each land management review.

The prioritisation exercise to identify sites upon which to improve wildlife-rich habitats on non-statutory sites was based on designated status, proximity to statutory and non-statutory sites and on size. Staff input and management of contractors will be more cost-efficient when working on fewer, larger sites because processes such as consultations, consents and tendering can be centralised, and the application of the Lawton principles and the analysis of the contribution of different site sizes and types to our portfolio's total biodiversity value (in BU's) gives the best option for customers in terms of value for money (i.e. cost per biodiversity unit). The projected achievements through this management are deemed to be realistic as they have been estimated based on past experience from WINEP investigations, as described above.

We will use the AMP8 Biodiversity performance commitment to develop the most cost-efficient mechanism to regularly map and quantify the BU value of our landholding. Our selection of nominated land has been guided by data, and the profiling of our performance under the PC makes provision for sound ecological decisions, to achieve the best value for our customers. Please see the OUT1-3 biodiversity commentary for further detail. We will nominate five areas of land totalling 272 ha – representing almost 10% of Wessex Water's freehold landholding – for the performance commitment, which together have an extrapolated value of 2621 BU's: almost 43% of the overall extrapolated BU value of the landholding which we have defined as 'eligible' for nomination under the PC. This approach represents a significant area for habitat improvements and biodiversity accounting, and hence a significant challenge to the business through AMP8, whilst recognising that wider roll-out of regular biodiversity accounting across our wider landholding is highly likely to be more cost-efficient in future AMPs (if mapping and condition assessment can be partially or fully automated through earth observation). Our nominated land represents a significant challenge for AMP8 whilst avoiding disproportionate expenditure – before processes can be automated – on many, small sites which contribute proportionately little to the BU value of our landholding.

5.4. Robust and Efficient Costs

The costs to undertake these monitoring and management requirements have been derived using previous experience from competitively tendered activities and the delivery of the AMP7 SSSI performance commitment and preceding AMP6 biodiversity performance commitment. We are confident that these costs are accurate.

The cost basis and benchmarking can be summarised as:

- Experience during AMP7 in the cost to deliver biodiversity management interventions through our current AMP7 SSSI performance commitment and wider work with landowners and managers.
- Competitively tendered interventions both on our landholding and on third party land through ongoing project work
- As part of our AMP7 SSSI performance commitment we have contracted ecological consultants to undertake condition assessments of SSSI landholdings which has informed the costing for wider monitoring and survey work
- Working with researchers and the market to understand applications and costs of the use of remote sensing for further survey work, and undertaking a trial during the latter years of AMP7.

The proposals detailed in this section cover improvements and investigations associated with improving biodiversity. The proposals correspond to their appropriate line drivers in the PR24 data tables as summarised in Table 16 below.

Table 16: Improving biodiversity PR24 data tables and costs (Monitoring & Management)

Table	Lines	Line Description	Capex (£m)	Opex (£m)	Totex (£m)
CW3	CW3.1 - CW3.3	Biodiversity and conservation; (WINEP/NEP) water capex, opex and totex	1.0	0.7	1.7
CWW	CWW3.83 - CWW3.84	Biodiversity and conservation; enhancement wastewater/bioresources	0.2	0.6	0.8
TOTAL			**1.2**	**1.3**	**2.5**

5.5. Customer Protection

The effectiveness of our SSSI management will be assessed and reported by Natural England, which periodically assesses SSSI's with reference to the criteria which define 'favourable condition' for each individual SSSI.

A mapping exercise has identified that the Wessex Water Catchment Panel has good representation of our appropriate stakeholders for the AMP8 Biodiversity PC. The Catchment Panel has been consulted during the process of defining the land which is deemed 'eligible' for nomination under this PC, and during the process of nominating land for the PC. The Panel will continue to scrutinize our performance under the PC throughout AMP8 including sanctioning of management plans for the nominated land, to ensure that management decisions are ambitious and ecologically sound, and taking a wider overview to ensure that the general biodiversity value of our wider (i.e. non-nominated) landholding is not declining.

The accuracy of biodiversity accounting using earth observation to partially and potentially fully automate the required surveys to inform metric calculations will be ground-truthed through the AMP8 Biodiversity performance commitment to ensure that reported data in AMP8 are robust, accurate and repeatable.

6. Summary

This section details the investment which Wessex Water will undertake during AMP8 to improve biodiversity across our region. This includes measures on our own land and in partnership, enhancement programmes and base maintenance to deliver both WINEP outputs and performance commitment requirements.

Table 17: Summary of Biodiversity Investment

Enhancement programmes	AMP8 (totex, £m)
Managing our landholding for biodiversity	7.9
Working in Partnership to Improve and Restore Biodiversity	3.7
Ongoing monitoring and management	2.5
Total	**14.1**

Our approach has been to investigate the impacts of our land management and opportunities to improve biodiversity with partners in one AMP and then deliver the most suitable interventions in the next. This is repeated in AMP8 where our plan comprises a mix of investigations and interventions.

We will continue to work with biodiversity delivery partners across our region through our Biodiversity Action Plan and wider implementation projects in source protection zones, for example. During AMP8, we will complete our tree planting Public Interest Commitment of 730,000 trees by 2030 and deliver greater biodiversity though our programme of nature-based solutions.

AMP8 introduces the Biodiversity Performance Commitment as a new requirement for all water companies.

This chapter describes our biodiversity activities during AMP8, illustrating their contribution to our longer term 2050 target and aligned with our improvement programme detailed in the Long Term Delivery Strategy.