WSX-C17 – Enhancement costs – biodiversity and conservation

Response to Ofwat's PR24 draft determination

Wessex Water
YTL GROUP

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Representation reference: WSX-C17

Representation title: Enhancement costs –biodiversity and conservation

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1. WINEP Biodiversity and Conservation

1.1. Summary

This response covers the funding allowances determined through Ofwat cost model PR24CA43 - W - Biodiversity available here: PR24-DD-W-Biodiversity.xlsm (live.com). This model assesses enhancement total expenditure (totex) included by companies in their PR24 business plan submissions in the pre-defined lines in tables CW3, CW12 & CW17 for the enhancement category. This model assesses investment on Biodiversity and Conservation and is for enhancement activity listed in the WINEP/ NEP for the delivery of biodiversity improvements, including restoring or preventing deterioration of Sites of Special Scientific Interest (SSSI) and/ or ensuring European sites are in a favourable condition.

Ofwat have validated all company requests against the agreed WINEP/ NEP and for seven companies with low materiality costs have allowed the costs after applying a 'company specific efficiency factor' capped between a minimum of 0% and a maximum of 20%. Wessex Water is one of two companies with a high materiality cost and Ofwat have applied a deep dive. For Wessex Water, a 40% adjustment has been modelled.

We have also included 08WW100070a Habitat improvements for swallows, swifts and martins within this paper. This WINEP action is under the Wastewater Network Plus price control and is reported in CWW3.183. At the draft determination this action has received a 100% cut in funding following a deep dive assessment (PR24-DD-WW-Freeform-1.xlsx (live.com), meaning that there is currently no funding to deliver this statutory WINEP obligation. It is presented in this document because of the similarity to the other WINEP actions (all biodiversity and conservation WINEP-driven investment).

We welcome the deep dive approach that Ofwat has undertaken but, based on the further evidence provided in this document, believe that the requested investment is required and is in the interests of customers and the environment. We hope that upon further consideration of these details, a greater level of confidence is evidenced, we welcome a further review of these details and are appreciative of the opportunity given to further substantiate our submitted costings.

All of the investment is WINEP-driven and contributes to the delivery of our statutory biodiversity obligations actions. The WINEP actions have been developed following investigations in previous AMPs that provided the sound science evidence base to justify their inclusion in the WINEP. This means that the investment is in the interests of customers (and protects them) by ensuring investment is justified and by ensuring unnecessary expenditure is avoided. We request that following the consideration of the additional evidence Ofwat adjusts our cost allowance for biodiversity and conservation to the level that we proposed in our business plan. A 40% cut would:

- Restrict the extent to which Wessex Water can deliver on its statutory biodiversity obligations;
- Curtail opportunities to improve biodiversity within the Wessex Water region;
- Risk the adoption of ineffective biodiversity solutions that reduce Wessex Water's environmental impact; and
- Impact stakeholder partnerships and limit the extent to which Wessex Water can work effectively with farming interests and eNGOs in delivering catchment management to link up with national and local strategic networks.

In the following sections we set out in detail the efficiency challenge presented in the Draft Determination and present new supporting evidence to address the shortfalls identified by Ofwat in our October 2023 submission. It is our view that these additional details and greater evidence substantiate our original Business Plan costings and would welcome a further review to restore the 40% allowance outlined in the Draft Determination.

1.2. Introduction

Wessex Water is fortunate to operate 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 (SAC), 11 Special Protection Areas (SPA), 27 National Nature Reserves (NNR), more than 6200 areas designated as Local Wildlife Sites (LWS) or Regionally Important Geological Sites (RIGS), eight National Landscape areas (formally AONBs) which cover over 30% of our region and two National Parks. Aside from these iconic landscapes and habitats, much of the rural and urban fabric of our region is host to a vast range of plants, insects, mammals and birds who call the many habitats home. However, we know that the state of biodiversity in our region must be improved. The biodiversity crisis is as concerning as the climate emergency and the two are intrinsically linked. Biodiversity in the UK is well below the global average with only 53% of our biodiversity left, placing us in the bottom 10% of the world. We know that the natural environment is essential for our wellbeing as well as being a vital component of our business which is so reliant on a natural resource - water.

In the Wessex region we have many of the same biodiversity issues in our region as elsewhere in the UK and The *State of Nature report*[1] shows:

- One in six species is now at risk of being lost from Great Britain. The wildlife studied has, on average, declined by 19% since monitoring began in 1970.
- Most important habitats are in poor condition, though restoration projects have clear benefits for nature, people and adapting to climate change.

Species loss in our rural catchments show that biodiversity has declined within intensive farming, and this often causes habitat fragmentation and loss of connectivity, causing greater biodiversity losses. Wessex Water is working closely with many landowners and farmers to adopt nature-friendly management of their land to deliver food production and sound business for them, whilst acting in our customers interests to protect raw water quality. Farmers must be supported and incentivised to help wildlife recover by creating more space for nature, significantly reducing pollution, and halving harm from pesticides by 2030. We are also actively working to improve biodiversity on our own landholding and have undertaken WINEP-funded investigations and delivered improvement actions to enable this.

As a water company we have a duty to enhance and protect biodiversity as laid down in successive pieces of legislation. We are committed to improving biodiversity across our region and our customers support our work in this area, this came out strongly in our Willingness to Pay customer surveys in the development our Business Plan. Our WINEP has been developed in discussion with our regulators and, where relevant, informed by discussions with stakeholder organisations and taking account of customer preferences. Best value actions have been included in the WINEP, subject to direction required by our regulators. Actions included in the WINEP align with the Environment Agency and Natural England's vision for the water industry, set out in WISER; to deliver a thriving natural environment – increased environmental value, healthy rivers, lakes, wetlands, coastal waters, and a sustainably functioning eco-system, performance and compliance – day to day service excellence for customers and acts in the long-term interests of society and the environment and resilience for the environment and customers – resilient, safe, and affordable water and waste water services today and for future generations.

In the development of our AMP8 WINEP we met regularly with the local Environment Agency and Natural England teams as well as national partnerships to ensure that it complies with our duties and aligns with wider strategies and targets. These include the 25 Year Environment Plan, the Environmental Improvement Plan 2023, Defra's Integrated plan for delivering clean and plentiful water, existing local Nature Recovery Networks, e.g., as published by the West of England Nature Partnership, the lists of Habitats and species of principal importance in England set

[1] State of Nature 2023 - report on the UK's current biodiversity

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 and we are actively involved with many of these networks and want our land included in plans where possible. Future editions of the Wessex Water Biodiversity Action Plan (BAP) will directly address these requirements once the plans are available across our region.

Biodiversity improvement was the key area where customers demonstrated a willingness to pay for improvements, with a desire for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife. 58% of customers surveyed chose loss of biodiversity and natural resources as the key issue which they were most concerned about.

Evidence of previous biodiversity delivery

We have established a proud track-record of delivery, which has helped inform the creation of our proposed AMP8 programme of work. Through our Catchment Biodiversity WINEP actions since 2020 we have delivered biodiversity improvements across 100ha of land, working in partnership with farmers in four catchments, helping to create connectivity of habitats and have seen an average increase of 8-25% in Section 41 species[2] within these areas. This work has included arable reversion of over 80ha to create either species-rich grassland or nectar-rich buffer strips, over 7ha of new deciduous woodland and 12.5km of new hedges with new hedgerow trees every 30m.

Our catchment biodiversity advisers have actively engaged farmers in the management work they undertake themselves, by undertaking whole farm surveys and ensuring improvement measures are carried out on land where there will be the greatest water quality improvements and biodiversity delivery. We provide advice on other non-Wessex Water grants, design measures, including seed/tree selection, soil monitoring, surface water flow modelling, habitat monitoring and direct feedback to farmers so the measures can achieve the best results thus delivering cost efficiency. The farmers learn more about the importance of the catchment biodiversity measures and see the species that thrive within them.

Through this approach our biodiversity advisers are learning from being actively involved with the planning through to the monitoring and feedback to farmers. The advisers learn which methods are achieving the best results and share this with other practitioners in the catchments and other farms through cluster groups. Crucially, this learning has been taken forward into our AMP8 catchments, again ensuring cost efficiency through appropriate delivery.

Through our AMP7 Priority Habitats Restoration and Re-creation WINEP action we have over delivered a total of 32.7ha of habitat improvement across our landholding, against a target of 25ha. This work has included:

- 16ha of saltmarsh restoration through establishing conservation grazing management and installing the necessary infrastructure to ensure its sustainable future, together with the management of visitor access.
- 2.2ha of calcareous grassland restoration and 7.8ha calcareous grassland creation through scrub removal and management, reseeding and securing long-term conservation grazing management.
- Creation of a mosaic of 5ha of lowland mixed deciduous and wet woodland planting, and 1.7 ha of lowland meadow, together with earthworks to create 15 new ponds with the spoil used to diversify the woodland ground structure.

[2] Our rarest and most threatened species are listed under Section 41 (S41) of the 2006 Natural Environment and Rural Communities (NERC) Act.

Our AMP8 plans

Our biodiversity and conservation implementation plans cover the eight WINEP actions listed below with their primary drivers. Five of these are catchment biodiversity projects covering 15 drinking water catchments. The other three projects will deliver habitat improvements on our land for priority habitats and species.

- 08WW100003a NERC_IMP AMP8 Catchment Biodiversity Delivery Poole Harbour
- 08WW100062a NERC_IMP AMP8 Catchment Biodiversity Delivery Shepherds Shore
- 08WW100063a NERC_IMP AMP8 Catchment Biodiversity Delivery River Tone
- 08WW100064a NERC_IMP AMP8 Catchment Biodiversity Delivery Divers Bridge
- 08WW100065a NERC_IMP AMP8 Catchment Biodiversity Delivery Cherhill
- 08WW100008a HD_IMP Blashford Lakes Management Plan implementation
- 08WW100069a NERC_IMP Priority Habitats Restoration and Re-creation
- 08WW100071a NERC_IMP Sustainable Woodland Management

In the draft determination a 40% efficiency challenge was applied, 20% each for best option for customers and cost efficiency on the biodiversity and conservation WINEP implementation projects.

Table 1 – Ofwat's deep dive assessment of Biodiversity and Conservation at Draft Determination.

Criteria grouping	Assessment comments	Criteria decision	% adjustment
Need for enhancement investment	**Partial Pass:** Part of Wessex Water's investment (related to its 'Tree Planting' scheme) could not be validated against the company's agreed WINEP programme. We have therefore reallocated the £3.431m request for this scheme from the WINEP Biodiversity model (CW3.3, PR24CA43 – W - Biodiversity), where these costs were originally presented, to the Freeform model (CW3.136, PR24CA30 – W - Freeform). For the remainder of this deep dive (£5.827m), we have only considered the non-'Tree Planting' investment. This includes the nine[3] Biodiversity schemes which meet the criteria for enhancement investment and additional customer funding. These schemes are consistent with the company's water industry national environment programme (WINEP). The company provides a list of WINEP implementation actions included in its programme, all of which are related to PR14 or PR19 funded WINEP investigations. The company provides sufficient and convincing evidence through a query response to show there is no overlap with base or previous enhancement funding and have detailed where new measures result from previous investigations and trials. Therefore, for the remaining cost request (after the Tree Planting reallocation) we have not applied an adjustment	Partial Pass	-£3.431m (37%) Of scheme costs related to the 'Tree Planting' scheme have been reallocated to Freeform for assessment.
Best option for customers	Some Concerns: We have some concerns whether the investment is the best option for customers. All schemes are noted to be based off PR14 or PR19 investigations and the company considers a range of alternative options for most schemes. However, the company does not provide sufficient and convincing evidence to demonstrate that the chosen options are the most cost beneficial. The company states all planned works are derived from investigations in the 2015-2025 period. An options appraisal report (OAR) and Action Specification Form (ASF) has been provided for each action, where detailed optioneering and reporting has	Some concerns	20%

[3] Ofwat's determination was based on nine biodiversity WINEP actions. There are now eight actions; 08WW100066a AMP8 Catchment Biodiversity Delivery Goodshill was deleted from the WINEP on 28/05/24.

	been presented for some schemes. However, limited cost-breakdowns and cost-benefit analysis has been presented and no evidence of internal or external benchmarking has been provided. The company has therefore not provided sufficient and convincing evidence to demonstrate that the proposed schemes are the most cost beneficial and best value for customers. For the remaining cost request (after reallocation) we have applied an optioneering challenge of 20%.		
Cost efficiency	Some concerns: We have some concerns whether the investment is efficient. The company does not provide sufficient and convincing evidence that the proposed costs are efficient. Wessex Water has provided a high-level explanation of its costing approach. The company states that bottom-up benchmarking, historical internal costs and the results of competitively tendered external interventions has been applied to its approach for the biodiversity programme. Additionally, all scheme costs have been based on the results of PR14 and PR19 funded investigations. These processes are described, but no evidence has been provided in the submission, and the OARs do not provide detailed cost breakdowns for preferred options. The company has provided third-party assurance of its WINEP costing approach and PR24 data tables. The company therefore does not provide sufficient and convincing evidence to show that it has considered the efficiency of costs for its biodiversity schemes. It is unclear how the company has arrived at its option costs for its biodiversity specific schemes or whether these costs can be deemed efficient. For the remaining cost request (after re-allocation) we have applied a cost efficiency challenge of 20%.	Some concerns	20%
Customer protection	Some concerns: We have some concerns whether the company's proposal protects customers from non-or under delivery. Although the investment is not material enough for a price control deliverable (PCD) to be proposed the company does provide a brief description of what it would use to protect customers. Southern Water proposes a scheme-specific price control deliverable (PCD) based on the delivery of its water WINEP actions. The Environment Agency will confirm that WINEP actions have been delivered to the agreed timeframe, and that environmental obligations have been met. However, any formal alterations agreed with the EA regarding scope or delivery dates will supersede the proposed PCD. The company proposes penalty rate is £0.733 million based on the percentage completion of all schemes and investigations. We do not consider that this proposal would provide sufficient customer protection. There would be uncertainty in using this to track delivery of the investment that customers have funded, including how delivery would be measured and how the interactions with alterations process would work for returning funding to customers. The expenditure in this area is not material and so we do not consider a PCD is required. For more information on PCD decisions see the PR24 draft determinations: Expenditure allowances - Price control deliverable appendix.	Some concerns	N/A

In addition to the above, a further WINEP action is considered within this paper:

- 08WW100070a NERC_IMP Habitat improvements for swallows, swifts and martins

This WINEP action under the Wastewater Network Plus price control and is reported in CWW3.183 At the draft determination this action has received a 100% cut in funding following a deep dive assessment (PR24-DD-WW-Freeform-1.xlsx (live.com), meaning that there is currently no funding to deliver this statutory WINEP obligation. It is presented in this document because of the similarity to the other WINEP actions (all biodiversity and conservation WINEP-driven investment).

In the following sections we address the points raised by Ofwat in the Draft Determination and present further supporting evidence to cost efficiency and best option for customers. We also refer to the relevant sections of our October 2023 business plan.

1.2.1. Need for enhancement investment

We welcome Ofwat's view that the investment identified here aligns with the WINEP and is driven by previous investigations, and that no efficiency challenge has been applied against this assessment criterion for the Biodiversity and Conservation WINEP actions.

However, in our view, Ofwat has not applied a consistent approach for WINEP action *08WW100070a Habitat improvements for swallows, swifts and martins.* It is our view that the reason for this inconsistency is this action was included in the Wastewater price control, unlike these actions, and we would welcome reconsideration within this response. This is WINEP driven investment and, as with the other WINEP actions covered by this paper, follows on from a previous investigation in AMP7. We request that Ofwat review this and do not apply an efficiency challenge against this criterion for the WINEP action 08WW100070a Habitat improvements for swallows, swifts and martins.

1.2.2. Best option for customers

Ofwat's Draft Determination states:

We have some concerns whether the investment is the best option for customers. All schemes are noted to be based off PR14 or PR19 investigations and the company considers a range of alternative options for most schemes. However, the company does not provide sufficient and convincing evidence to demonstrate that the chosen options are the most cost beneficial.

The company states all planned works are derived from investigations in the 2015-2025 period. An options appraisal report (OAR) and Action Specification Form (ASF) has been provided for each action, where detailed optioneering and reporting has been presented for some schemes. However, limited cost-breakdowns and cost-benefit analysis has been presented and no evidence of internal or external benchmarking has been provided.

The company has therefore not provided sufficient and convincing evidence to demonstrate that the proposed schemes are the most cost beneficial and best value for customers. For the remaining cost request (after reallocation) we have applied an optioneering challenge of 20%.

Wessex Water response

Our AMP8 biodiversity and conservation WINEP actions are all developed from WINEP investigations in previous AMPs and informed by similar implementation WINEP actions completed in AMP7. Guidance from the Environment Agency in the development of the WINEP required that WINEP implementation actions informed by previous investigations did not need an Options Development Report (ODR), because the previous investigation performed this purpose. For this reason an ODR was not provided to support investment in this area.

Figure 1 – The investigation process, showing how an investigation is used to inform subsequent implementation actions.

All of the implementation WINEP actions are carrying out either a habitat restoration or finding a nature-based solution after a previous AMP investigation.

Catchment Biodiversity Delivery

Our environmental regulators expect us to deliver on the Natural Environment and Rural Communities Act 2000 (as amended by the Environment Act 2021), which requires us as a statutory undertaker in exercising our functions to have regard to the purpose of conserving and enhancing biodiversity. In these drinking water safeguard zones, we have a direct impact on biodiversity and therefore need to address this with our works. The most sustainable solution to addressing raw water quality deterioration is to work in the catchment to minimise the inputs of diffuse pollution – mostly nitrates and pesticides – at source. This helps us to provide clean drinking water without using excessive treatment and chemicals, whilst also providing an opportunity to deliver on our biodiversity obligations by implementing biodiversity enhancements that improve water quality and deliver wider benefits such as reduction in flood risk, adaption to climate change and carbon sequestration.

As in previous AMPs, the catchments included in our AMP8 WINEP catchment biodiversity programme all contain Wessex Water sources and it is therefore in the interest of our customers to ensure that raw water quality at these sources is protected. Options for delivery which we have considered include:

- Using Wessex Water catchment biodiversity advisors working alongside Wessex Water catchment advisors.
- Employ an external biodiversity consultant to work with Wessex Water catchment advisors.
- Employ an NGO (e.g. Farming and Wildlife Advisory Group South West (FWAGSW) or Rivers Trust) to deliver our WINEP implementation programme.
- Do nothing and re-direct investment to an alternative catchment for implementation.

We look at each of these options and depending on the best farmer links in a catchment any of these options may apply. For example, if an NGO is running a farm cluster, we will fund the delivery work through them as they already work with the farmers in that catchment and are best placed to deliver the required catchment and biodiversity measures as well as bringing potential match funding.

However, where there is no farm cluster and the farmers have had regular water quality monitoring in the catchment undertaken by our catchment management teams, then we are best placed to deliver directly through our catchment biodiversity advisors. In some catchments there are established biodiversity consultants enabling a mix and match approach to ensure we have the greatest reach with the best cost efficiency. In the case of one of our AMP7 catchment biodiversity WINEP actions, we have re-directed investment planned for one small catchment to the other AMP7 catchments. This is because farming and land management in this catchment was no longer considered to be a risk to raw water quality at our source. With agreement from the environmental regulators, we have re-directed investment to the other catchments where greater water quality and biodiversity benefits will be realised.

Through similar schemes in AMP7 we have gained significant knowledge and experience of the approaches that are likely to be received by farmers, their costs and how we can apply this to other catchments in AMP8 and beyond. Our catchment biodiversity advisors undertake regular monitoring of habitat schemes, where we give immediate feedback to farmers. This is one of the reasons that we have such good success with uptake of catchment biodiversity measures and means we can report back to customers on these successes. When new funding schemes become available, such as Sustainable Farming Initiative (SFI), our catchment biodiversity advisors work with the farmer to see if this grant is more appropriate. Where this is the case, this enables us to re-direct our grants to change more land management.

We undertake benchmarking exercises regularly with similar WINEP actions in AMP7. When we started similar schemes in AMP7 we worked with EnTrade (an environmental market operator in the UK) and ran an environmental auction to understand the value farmers put on different measures. The outcome of this was that we were paying farmers below or the same as similar measures which they could have achieved through Defra agri-environment schemes. For example, hedgerow planting we were paying £8.50 a metre and at the time Defra was paying £11.60 a metre making a 25% saving for customers, if we had matched the Countryside Stewardship grant. Further information is provided in the cost efficiency section below.

There is a desire amongst customers for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife. Customers also expressed a willingness to pay more for large improvements in supporting nature and wildlife. In our surveys, when customers were asked to choose the top five issues which they were most concerned about, 58% chose loss of biodiversity and natural resources. ‘How Wessex Water is protecting the environment’ is one of the main topics that customers would like to know more about, so it is vital we monitor for positive outcomes. There is a desire amongst customers for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife. See Annex 1 for the biodiversity section of our customer survey.

In the development of the WINEP we have acted to ensure that investment WINEP-driven investment is in the interests of customers and remains the best option for customers. This is illustrated by the removal of WINEP action 08WW100066a AMP8 Catchment Biodiversity Delivery Goodshill from the WINEP at our request in May 2024. The Goodshill source is not operational and there are no plans to bring the source back into supply. We therefore requested removal of this action from the WINEP as we firmly believe it is not in the interest of customers to invest at this site.

Habitat improvements on our land for priority habitats and species

In regard to our WINEP actions on improving our landholdings biodiversity value – Sustainable Woodland management, Priority Habitats Restoration and Re-creation and Blashford Lakes Management Plan, all of these actions were also based on investigations on our landholdings in AMP5 and AMP6 and delivery started in AMP7. In all of these projects there is no other available funding, such as Countryside Stewardship (CS) which we can fund these works. A lack of funding available to non-statutory sites is one of the main reasons for biodiversity loss and fragmentation, which restricts species movement, in the UK. Our sites that have been highlighted meet a number of national targets for reduction in habitat loss and link up with Local Recovery Networks.

All management options for sites are sent out for tender where we ensure at least three quotes are received. Often our sites require specialist machinery (steep slopes) or expertise required with protected species. Internal benchmarking exercises are regularly undertaken across teams such as Conservation, Access and Recreation; Estates and Environmental Planning, to ensure best value. It is through internal and external quotes where we undertake most of our benchmarking of costs. Additionally, our framework and approved contractors are assessed to ensure they are suitably qualified to deliver high quality work. Together, this results in the best costed contractors delivering high quality work and hence best value for customers.

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. Future editions of the Biodiversity Action Plan (BAP) will directly address these requirements once the plans are available across our region.

Habitat improvements for swallows, swifts and martins

In February 2016, Defra brought in additional guidance for competent authorities to halt the steep decline of bird species by taking steps to provide and protect their habitats. A delivery project was undertaken in AMP7 to review water recycling centres (WRC) and their use by bird species of conservation concern as identified in studies by other water companies, British Trust for Ornithology (BTO) and the RSPB (7WW200580 Maximising opportunities for birds at STWs).

Building on the work delivered in AMP7, this WINEP project will utilise the previous site assessments and enhancement matrix to identify an additional 20 operational sites and deliver habitat enhancements to maximise opportunities for Section 41 (S.41) priority species, Birds of Conservation Concern (BoCC) and/or flagship species, such as ospreys. 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), BoCC, and/or flagship species. Habitat enhancements will focus on nesting and foraging habitat to augment the feeding opportunities that the operational sites provide. However, as detailed above, due to the inclusion in the Wastewater Price Control, the funding for this WINEP obligation has been cut from the Draft Determination and we respectfully ask that it is re-instated.

1.2.3. Cost efficiency

Ofwat's Draft Determination states:

Some concerns: *We have some concerns whether the investment is efficient. The company does not provide sufficient and convincing evidence that the proposed costs are efficient.*

Wessex Water has provided a high-level explanation of its costing approach. The company states that bottom-up benchmarking, historical internal costs and the results of competitively tendered external interventions has been applied to its approach for the biodiversity programme. Additionally, all scheme costs have been based on the results of PR14 and PR19 funded investigations. These processes are described, but no evidence has been provided in the submission, and the OARs do not provide detailed cost breakdowns for preferred options. The company has provided third-party assurance of its WINEP costing approach and PR24 data tables.

The company therefore does not provide sufficient and convincing evidence to show that it has considered the efficiency of costs for its biodiversity schemes. It is unclear how the company has arrived at its option costs for its biodiversity specific schemes or whether these costs can be deemed efficient. For the remaining cost request (after re-allocation) we have applied a cost efficiency challenge of 20%.

Wessex Water Response

All of our AMP8 biodiversity and conservation WINEP implementation actions have been costed bottom up using a standard template proforma, further details of which are provided in Annex 2. This is to ensure that we have an auditable and consistent approach to costing our WINEP actions.

Where appropriate, we use consistent unit costs to cost our WINEP actions, with costs estimated using the number of units multiplied by the unit rate. The scale of the work required to deliver the investigation is informed by discussions with the environmental regulators over their expectations concerning the WINEP output and our own professional judgement and experience in delivering similar actions in previous AMP cycles. This is the same approach that we used for costing our AMP7 programme.

In the following section we section we provide further information on our costing approach and how we ensure that the costs are efficient.

Catchment Biodiversity Delivery

When we started catchment biodiversity delivery in AMP7 we undertook benchmarking exercises with an environmental market operator (EnTrade) via an on-line 'fund-spreader' auction to find the market value of these natural capital goods. Through the auction, farmers were offered the average price of bids made for each measure (e.g. hedgerow planting, species-rich buffer strips, Biodiversity Action Plan (BAP) grasslands). This approach allowed us to reach the majority of farmers in a catchment and determine a 'fair' (and efficient) price for delivering catchment biodiversity improvements in the Wessex Water region. It also enabled us to compare the cost of delivering measures through our programme against other grant schemes open to farmers. The results of this are shown in Table 2, where we found the costs of delivering biodiversity improvements through our approach was either similar or lower in comparison to Countryside Stewardship (CS) grants. For example, CS was paying £11.60 a metre for hedgerow creation in 2020-2022, whereas the farmers average market value came in at £8.50 a metre for hedgerow planting, thus making delivery through our approach 26.7% more cost efficient compared to CS. By comparison, species-rich grassland was only 2.5% more cost efficient between 2020 and March 2023.

In 2023 Defra increased the value of CS grants, this was a significant uplift due to commodity prices affecting agriculture and at that time we increased our grants to reflect these changes. Our cost is currently between 4.2% and 16.4% more efficient than CS. In contrast to CS, our catchment biodiversity advisors also undertake yearly assessment surveys to ensure that each measure is being delivered appropriately. This also increases cost efficiency by ensuring that measures are delivered to a high standard thus delivering greater natural capital value.

The funding for the catchment biodiversity schemes delivers multiple natural capital benefits and we ran a Defra ELMs Test and Trial pilot with other investors in an AMP7 multi-benefits auction. Wessex Water funded the nitrate reduction and biodiversity improvements, the Environment Agency funded improvements in Natural Flood Management, and Defra funds covered connectivity of biodiversity through landscape networks. Each organisation purchased natural capital goods that the farm measures provided thus providing cost efficiency across the multiple, largely complimentary, benefits.

We are evaluating the benefits of this work using the Biodiversity Metric. Estimates were made within the AMP but with field monitoring, these estimates will be updated to actual results at the end of AMP7 and throughout AMP8. Similarly, estimates on natural flood management, connectivity and carbon sequestration will be undertaken.

Table 2 – Wessex Water Biodiversity grants and rates of payment across different agri-environment schemes and how Wessex Water biodiversity grant compares in AMP7.

Measure	Countryside Stewardship (CS)	Sustainable Farming Initiative (SFI)	Wessex Water biodiversity grants	Cost Savings (%)
Flower-rich grass margins, blocks or in-field strips	AB8: £539 per Ha (between 2020-2023)	N/A	£500 per ha (between 2020- March 2023)	7.2
	AB8: £798 per ha (post April 2023)	CIPM2: £798 per Ha	£700 per ha (post April 2023)	12.3
Creation of species-rich grassland	GS8: £267 per ha (between 2020- March 2023) only available in higher tier	N/A	£260.44 per ha (between 2020- March 2023)	2.5
	GS8: £646 per Ha (post April 2023) only available in higher tier	N/A	£540 per ha (post April 2023)	16.4
Planting new hedges	BN11: £11.60 per m (between 2020- March 2023)	N/A	£8.50 per m (between 2020- March 2023)	26.7
	BN11: £22.97 per m (post April 2023)		£22 per m (Post April 2023)	4.2
Planting standard hedgerow tree	TE1: £8.50 per unit (between 2020- March 2023) plus tree guard between £4 to £84 per unit	N/A	£30 per tree including guards	N/A*
	TE1: £19.06 per tree (post April 2023) plus tree guard between £3.95 to £132.16 per guard			N/A*

*due to variability in CS contribution towards tree guards

Habitat improvements on our land for priority habitats and species

To benchmark our cost efficiency in project delivery, we reviewed our AMP7 WINEP Priority Habitat Project. The AMP8 WINEP Priority Habitat Project will form a continuation of this work on a prioritised suite of sites, following the principles established during AMP7. These principles pertinent to cost efficiency are detailed below.

The AMP7 WINEP Priority Habitat Project delivered a step change in habitat creation and restoration on our landholding across over 25ha. When assessing suitable sites for habitat delivery, the Lawton principles were followed, namely 'bigger, better and more joined up' through a detailed desk-based assessment. This resulted in targeted 'joined up' habitat creation where we would deliver the greatest overall biodiversity outcomes and hence deliver greater biodiversity value. In terms of 'bigger', three large sites (as opposed to many, small discrete sites) were identified for habitat creation and/or a step change in enhancement. The creation of bigger units of habitat resulted in significant cost efficiencies in terms of planning, establishment, and management costs, and the creation of an efficient survey programme. 'Better' was delivered through detailed initial site assessment ensuring that environmental conditions (e.g. soil fertility) were appropriate for the proposed habitat creation. This avoided any

reduction in cost efficiency that would result from habitat creation that would not meet target condition due to unsuitable environmental conditions.

Durleigh Wetlands was one of the three sites taken forward by the AMP7 WINEP Priority Habitat Project. Target habitats created included lowland meadow, lowland mixed deciduous woodland, and ponds (priority habitat) however within the initial 30 years following creation the target habitats are other neutral grassland, other woodland mixed, and ponds (non-priority habitat) respectively. Given further time, these will develop into priority habitats.

Benchmarking the delivery costs for this habitat creation is problematic for two principal reasons:

- Habitat variability: cost of management of the same given habitat varies hugely depending on context: topography, access, management unit size, presence of protected species or species of conservation concern etc can vary the cost of projects hugely from site to site.
- Wessex Water contractor requirements: we are essentially an engineering and construction company, holding land for operational purpose to produce a food-grade product and to treat wastewater. Our pre-qualification requirements of contractors and methods of working, procedures etc are stringent and hence the cost of engaging contractors for this type of work is not comparable to others completing similar work such as a Wildlife Trust or local authority.

Given the inherent difficulty of benchmarking overall delivery cost, we have instead benchmarked the cost efficiency of the outcome delivered. We have done this by referring to the cost of statutory biodiversity credits; the prices of which are based on the cost to create, maintain and monitor different habitat types. We considered benchmarking against the open market on biodiversity credits but consider it inappropriate: the market is still developing and until it is saturated, costs will not reflect the stable market value over 30 years and, similarly, availability (and hence cost) varies between local planning authority areas, so there is not currently a consistent overview on costs provided by the open market.

Table 3 shows the lifetime cost, adjusted for inflation forecasts (CPIH) on a year-by-year basis, of biodiversity unit delivery for these three habitat types created at Durleigh Wetlands with a cost comparison against purchase of statutory biodiversity credits for the same habitat types and the corresponding cost savings percentage.

- A realistic assessment, through review of habitat definitions as per UKHab and the Statutory Biodiversity Metric Condition Assessments, identified how many Biodiversity Units (at target condition, after 5 years of creation and 30 years of management; i.e. the ‘lifetime’ cost) will be delivered upon maturation of each hectare of each habitat type created minus the baseline habitat value.
- The costs we present are based on the habitat creation costs for Durleigh Wetlands, including any remaining forecast costs for the AMP7 WINEP Priority Habitat project. These costs are divided by the total habitat area created (ha) to give a cost per ha. To illustrate the biodiversity unit enhancement initiated by this habitat creation, management costs (including management and monitoring, adjusted for CPIH) of each habitat type (per ha) for the following 30 years have been estimated based upon previous experience and historic costs of habitat management delivered on WW sites. Together, the initial 5 year habitat creation costs and the indexed 30 year habitat management costs give the ‘total lifetime cost’ (£ per ha).
- The ‘unit shortfall summary’ tab of the Statutory Biodiversity Metric Calculator Tool was used to assign each given habitat within scope of the scheme to a tier (all habitats were tier ‘A1’). The tier was then used to identify the statutory credit cost for each given habitat (note we refer to cost if purchased at a 1:1 biodiversity unit: statutory credit ratio).
- The lifetime cost savings percentage of Wessex Water’s delivery cost per biodiversity unit compared to the statutory credit cost was calculated.

Table 3 – Lifetime cost of biodiversity unit delivery, adjusted for inflation forecasts (CPIH) on a year-by-year basis, for habitats created by the AMP7 WINEP Priority Habitats Project at Durleigh Wetlands with a cost comparison against purchase of statutory biodiversity credits for the same habitat types and the corresponding cost savings percentage.

Habitat Type	BU change (BU per ha)	Total Lifetime* Cost (£ per ha)	Total Lifetime* Cost (£ per BU)	Purchase of Statutory Biodiversity Credits at 1:1 (£ per BU)	Cost Savings (%)
Other neutral grassland	3.66	86,255	23,596	42,000	42.5
Other woodland; mixed	3.62	48,998	13,541	42,000	66.4
Pond (non-priority habitat)	4.11	135,931	33,078	42,000	20.1

*Lifetime costs include the initial 5 years of habitat creation costs and 30 years of enhancement management costs (adjusted for CPIH) to enable the habitat to meet target condition.

Table 3 shows that our delivery of other mixed woodland compared to purchase of the corresponding statutory credits represents a cost savings of 66% per BU. Our delivery of other neutral grassland represents a cost saving of 43% and ponds (non-priority habitat) 20%. With reference to the areas of each habitat type on site, the weighted average cost saving is 58.4%.

Together with our experience gained during AMP7, the same delivery methodology will be employed for the AMP8 WINEP Priority Habitat Project to ensure cost efficiency. See Annex 3 for an example of our tendering procedures.

Habitat improvements for swallows, swifts and martins

The AMP7 WINEP project 'Maximising opportunities for birds at STWs' has provided detailed insight into undertaking assessment of WRCs sites for their birds, together with reviewing the features and habitats present on Wessex Water sites and how they relate to the surrounding landscapes and their use by birds. The AMP7 project saw targeted enhancement, based upon the site assessment, carried out at 10 WRCs.

The experience gained from the AMP7 project is directly transferable to AMP8 in relation to understanding the scale and nature of the measures to be delivered. The AMP7 project work has also enabled refinement of costs to deliver the work required in AMP8.

As detailed previously in this document, all capital works use framework or approved contractors to deliver best value. Furthermore, as in AMP7, efficiencies are gained through grouping sites where similar measures are being delivered. In this regard, the AMP7 project work identified three key habitat enhancement works on our sites for birds, namely hedgerow planting, scrub planting, and the erection of nest boxes. Rather than by delivering work at the 10 discrete sites separately, work types were grouped for delivery. This utilised our tendering procedures to purchase goods and services with an economy of scale. Using these methods, we ensure efficient use of the investment associated with these WINEP actions.

1.2.4. Customer protection

We agree with Ofwat that this area is not material and therefore a PCD is not required.

1.2.5. Conclusion / Summary

As detailed in this document, we accept the deep dive approach that Ofwat has undertaken. However we believe that the requested investment is required and is in the interests of customers and the environment. Our detail

representation above provides further empirical evidence to demonstrate cost efficiency based on more recent biodiversity delivery, which we hope can be incorporated into a further review of this allowance.

- We note and welcome that Ofwat accept the need for enhancement in this area.
- We welcome the opportunity to reconsider the 20% cut providing evidence to demonstrate how this would restrict the extent to which we could deliver our statutory biodiversity obligations. As demonstrated above, we feel this reduction would also curtail opportunities to improve the regions biodiversity and risk the adoption of ineffective biodiversity solutions as well as impacting partnerships which work with farming interests and eNGOs in delivering catchment management to deliver the best results for biodiversity and can share the results with our summarise arguments above.
- Biodiversity improvement was the key area where customers demonstrated a willingness to pay for improvements, with a desire for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife. 58% of customers surveyed chose loss of biodiversity and natural resources as the key issue which they were most concerned about.
- We believe we have presented greater detail on our cost efficient delivery in recent years and would welcome a review of the 20% cut for cost efficiency. The empirical cost evidence presented from recent implementation shows that we are more cost efficient than similar government grants (Countryside Stewardship) and deliver a service that delivers results which are summarise arguments above. We would welcome Ofwat's review of these data.
- We are concerned about the 100% cut in the WINEP investigation for Habitat improvements for swallows, swifts and martins (08WW100070a) and ask that this is reinstated.
- Based on the additional data presented here, we would welcome a further review, taking this into consideration, as we feel that fully funding our original proposal represents the best option for customers and the environment.

2. Non-WINEP Biodiversity and Conservation

2.1. Summary

In February 2024, outbound query ref. OFW-OBQ-WSX-198 sought clarification on the inclusion of £3.431m of expenditure associated with our tree planting commitment assigned to CW3.1-3.3 (the NERC/W_BIOD driver). Our review of costs in response to this query highlighted that this scheme did not align with the NERC/W_BIOD driver, and this was confirmed to Ofwat in response to the above query. However, our review of costs in response to the query also highlighted that there had been omissions in the costs presented in our February 2024 tables in relation to other biodiversity enhancement schemes for Wessex Water's landholding. In March 2024 we hence presented additional costs against CW3.136 and CWW3.183-184 for biodiversity enhancements in addition to our tree planting public interest commitment; however it is clear from the cost assessment models that Ofwat's cost assessment did not account for our subsequent amendment to the February 2024 table submission and hence these additional costs have not be assessed. For the avoidance of doubt we here present these costs again – for clarity, in isolation from costs associated with our tree planting commitment – and present a summary of the justification for these costs.

Ofwat has assessed our enhancement costs relating to our tree planting public interest commitment through its water and waste water freeform enhancement expenditure models ('PR24 CA30 Freeform' and 'PR24CA79 - WW - Freeform.xlsx' respectively) and has made no allowance for this expenditure. We are not making any representation in response to these assessments here; i.e., we are presenting additional costs which have not yet been assessed.

Table 4 – Summary of costs presented

Data table line	Our requested allowance	Further details
CW3.137	£0.803M	£1.607M Enhancement expenditure associated with delivering the Biodiversity performance commitment on nominated land. Please refer to WSX-D03 and WSX-D04.
CWW3.184	£0.803M	
CW3.137	£0.900M	£1.250M Enhancement expenditure associated with delivering biodiversity unit increase on Wessex Water's operational land holding. Please refer to WSX-D03 and WSX-D04.
CWW3.184	£0.350M	

2.2. Summary of activities associated with expenditure

The two activities associated with this expenditure are described in WSX47 and WSX25, but for clarity our proposals are summarised again here.

2.2.1. Biodiversity performance commitment

Our rationale for and approach to nominating land for the biodiversity performance commitment and setting our proposed performance level is described in detail elsewhere[4]. In terms of delivery, we propose to implement

[4] Please see WSX47 (although note our revised performance commitment level proposed in WSX-O01), Additional data table commentary for OUT4-5 biodiversity shared with Ofwat on 25 January 2024, and WSX-O01.

biodiversity accounting software, undertake baseline and subsequent four yearly surveys and implement enhanced habitat management to effect an uplift in biodiversity units on our nominated land. As we have made clear elsewhere, where ecologically appropriate we may also make investment into management activities for species or assemblages of conservation concern, or for landscape-scale conservation, which may not necessarily result in a positive change in biodiversity unit value. Our proposed performance is detailed in WSX-O01.

2.2.2. Biodiversity enhancement of operational landholding

Using habitat mapping data from AMP6, in AMP7 we have undertaken a prioritisation exercise of the wildlife-rich habitats of our landholding, 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'). This has produced a list of sites which would represent the most efficient use of resources to deliver our duties towards the Environment Act targets.

The first two tiers of this prioritised list represent European and domestic statutory sites (i.e., SSSIs) and are hence excluded from this proposal for enhancement expenditure[5].

For the remaining tiers of the prioritised list of sites, we propose through the enhancement expenditure presented here to implement a step change from maintenance of sites to enhanced conservation management – through the production, implementation and monitoring of 'Site Environment Plans' (our in-house management plan format for operational sites) – to effect an increase in biodiversity units. We have calculated that these activities will yield a net biodiversity unit increase of up to c.1,300 biodiversity units at target condition, which is commensurate with the ambition set out in our LTDS to create 1,000 biodiversity units, once at target condition, each AMP to 2050. Our Site Environment Plan format has been revised and now includes targets, indicators of success and schedules monitoring visits from a suitably qualified ecologist, to ensure that management is implemented as specified and is proving effective.

Although management activities may be similar to those undertaken through the biodiversity performance commitment, these sites which will be subject to conservation management through a Site Environment Plan are distinct from the land which we propose to nominate 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. However, whilst distinct from reporting against the biodiversity performance commitment, implementation of these Site Environment Plans could 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.

2.3. Required action from Ofwat

We request that Ofwat allows the costs presented above for the above activities, in the context of the rationales below.

[5] In AMP7 we have a bespoke performance commitment around the biological condition of our SSSIs. We have hence explicitly excluded statutory designated sites (i.e., SSSIs) from the scope of this enhancement expenditure, as this is a previously funded performance improvement.

2.4. Rationale

2.4.1. Need for enhancement investment

We are facing a global ecological and climate emergency. The fourth State of Nature (SON) report, published in 2023[6], reports that the UK is now one of the most nature-depleted countries on Earth. Since 1970 UK species have declined by c. 19% on average, and nearly 1 in 6 species (over 16%) are now threatened with extinction. We must act now, and we hence require investment now.

Water companies have a duty to protect biodiversity, as laid down in successive pieces of legislation, including general duties in respect of conservation, access and recreation conferred by the Water Industry Act 1991 and Environment Act 1995, the 'biodiversity duty' under the NERC Act 2000, and, since the last price review, the 'enhanced biodiversity duty' set out by the Environment Act 2021. We must 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.

In addition to statutory drivers, the biodiversity performance commitment is a novel regulatory requirement for AMP8. We must implement a step change to respond to this new statutory obligation and new performance commitment.

The Statutory Biodiversity Metric now enables us to consistently quantify the value of our habitats and our LTDS sets out our ambition to improve or create habitat on our landholding to create 1,000 biodiversity units, once at target condition, each AMP to 2050. The scale of the investment proposed here is in proportion to that required to deliver this commitment during AMP8: we calculate that habitat interventions proposed here have the potential to effect an uplift of up to c.1,300 biodiversity units when at target condition.

This investment is essential for us to deliver our proposed performance level for the biodiversity performance commitment, and in addition to set in motion wider, complimentary work to the performance commitment.

Distinction from base expenditure

Our existing base expenditure on biodiversity, through routine grounds maintenance activity, works to maintain the biodiversity unit value of our landholding; i.e. base activities result in no net increase in biodiversity units. These proposals relate specifically to a step change to create 'new' biodiversity units from 2025 onwards and there is hence a clear distinction here from base expenditure.

Biodiversity accounting enables us to identify specific uplift in biodiversity unit value (i.e. enhancement), and attribute costs directly to this, ensuring that customers are not paying twice for these activities.

We note that in AMP7 we have a bespoke performance commitment around the biological condition of our SSSIs. We have explicitly excluded statutory designated sites (i.e., SSSIs) from the scope of this enhancement expenditure, as this is a previously funded performance improvement.

[6] TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf (stateofnature.org.uk)

Distinction from spend to save activity

Spend to save in a conservation/biodiversity context would be ongoing maintenance of habitats to ensure that their condition does not degrade (i.e., so that additional expenditure is not necessary to restore the habitat). Spend to save in this context is hence by definition base (i.e. maintenance) expenditure, which is as we describe above distinct from the enhancement expenditure proposed here. Spend to save is not applicable for biodiversity enhancement as enhanced habitat condition (where enhanced for the purpose of enhancing the habitat itself as opposed to, for example, creation of a wetland with water treatment benefits), does not bring about any direct, tangible long-term cost saving. Conservation management for conservation's sake does not generate an income or offset any operational cost.

2.4.2. Best option for customers

Optioneering and cost benefit analysis

For the biodiversity performance commitment, our optioneering process first considered 'benefit' in the context of maximising reportable performance under the performance commitment by nominating land of low current biodiversity unit value (i.e., if the baseline is low value, there is more potential uplift in condition and hence biodiversity units). However, although performance would appear higher, this benefit would not represent best value for customers or the environment because delivering the performance commitment on our land of low current biodiversity unit value would:

- Involve delivery across many small, geographically dispersed sites. Ecological principles establish that a small area of habitat has inherently less conservation value than the same habitat of a larger size (for example, 'edge effects' on smaller habitats). Hence there is disproportionately more conservation gain from enhancing a single, large area of a given habitat compared to enhancing the same cumulative area of the same habitat comprising many, smaller sites. There are also clear economies of scale from surveying and managing fewer, larger sites compared to many, scattered sites cumulatively totalling the same area.
- Involve implementing habitat creation and restoration before enhancement. This would not follow economic or conservation best practice.

Our OUT4-5 Commentary for Biodiversity[7] set out the process followed to determine our approach to the biodiversity performance commitment. In summary, we reviewed the biodiversity unit value of our landholding, which showed that our most 'valuable' sites (i.e. those with the highest biodiversity unit value) contribute a disproportionate amount to the overall biodiversity value of land that could be considered for nomination under the performance commitment. These most valuable sites also represented some of our largest landholdings. We hence proposed nominated land which:

- Represents almost 10% of WW's freehold land
- Supports almost 43% of the Eligible Land's[8] biodiversity unit value
- Represents our largest landholdings
- Has public access (either invited or statutory), further adding to the public benefit achieved through the performance commitment as our customers have access to enjoy the habitats which will be enhanced.

In addition to the value/benefit of maximising the reportable performance under the biodiversity performance commitment, our optioneering also considered the value and benefit of accelerating the timescale in which our

[7] Please see the additional data table commentary for OUT4-5 biodiversity shared with Ofwat on 25 January 2024.
[8] The criteria for land which is 'Eligible' for nomination under our performance commitment were agreed with our Catchment Panel.

maximum possible performance could be reported. We modelled delivery of 1 biodiversity unit per 100 km^2 of company area by 2029/30 using an alternative approach, purchasing arable land (i.e. land of poor conservation value) to be held specifically for the purposes of this performance commitment and converting it to modified grassland (i.e., a habitat for which the time to target condition allows reporting of biodiversity unit uplift within four years). This would involve a totex of £3.57M at P50. We concluded that this offers poor value for money for the customer in the context of prioritising creation before enhancement of habitats and much diminished long-term performance (i.e. creation of modified grassland). We also do not believe that this approach would be in the spirit of the performance commitment definition to nominate land in use during the exercise of the company's functions.

Whilst our optioneering ruled out the inclusion of our small, dispersed sites under the performance commitment, we do acknowledge that our smaller sites still have a part to play in landscape scale conservation. Our optioneering – in consultation with our Catchment Panel - included whether to include these sites within the scope of the biodiversity performance commitment and 'how far to go' in terms of number of sites to include. We concluded that delivery of enhancement on these sites outside of the scope of the biodiversity performance commitment would represent better value: 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. In terms of number of sites to include, we prioritised sites for inclusion within scope of our enhanced management of our operational land holding. Our analysis was based on designated (non-statutory) status, proximity to statutory and non-statutory sites, presence of Priority Habitat, and on size. These criteria give the best 'cut-off' for enhancement management as they adhere to the Lawton principles.

Benefits of proposed investment

This investment will result in a contribution towards the environmental targets set out in the Environment Act (please see above). The key benefit of the proposed enhancement is an increase in the biodiversity unit value of our landholding. Our proposed performance level under the biodiversity performance commitment is 0.17 biodiversity units per 100 km^2 of company area. The key benefit of this investment, which our proposed performance level provides for, is delivery of conservation management for specific species and species assemblages of conservation concern, such as small pearl bordered fritillary butterfly and waterbirds. Additionally, through enhanced management of our operational sites we propose to deliver up to c. 1,300 biodiversity units when at target condition.

The secondary, but equally tangible, benefit of our investment is access to an improved environment to our customers. As noted above, all of the sites within our nominated landholding have public access (either invited or statutory), further adding to the public benefit achieved through the performance commitment.

Customer support for investment

Market research to provide an understanding of customer priorities and expectations for Wessex Water for the next 25 years, undertaken during 2021, indicated strong support for improving biodiversity. There is a desire amongst customers for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife.

- The principle of 'Improving the natural environment' is the number one for positive impact, but for most people is expected.
- 'How Wessex Water are protecting the environment' is one of the main topics that customers would like to know more about.
- Customers expressed a willingness to pay more for large improvements in supporting nature and wildlife.
- 'Environment' is the most widespread area that consumers spontaneously mention Wessex could improve on.

Vulnerable customers were on average less willing to pay or not willing to pay at all for environmental developments, whereas non-vulnerable customers were willing to pay for advancements in excess of improving nature/wildlife. Future customers were found to be more concerned about the loss of biodiversity compared to the rest of the population.

As detailed in document WSX06, the summary of our Customer Research Triangulation, when customers were asked to choose the top five issues which they were most concerned about, 58% chose loss of biodiversity and natural resources.

Biodiversity improvement is seen, by our customers, as an urgent action and an area they would demonstrably like to see us care more about.

Please refer to WSX06 (page 64 onwards), and additionally WSX03 and WSX25 for further detail.

2.4.3. Cost efficiency

The costs we present above have been calculated bottom up, based on previous experience and historic costs of habitat management to generate a 'management cost per ha' of each given habitat within scope of the project. Historic costs are from Wessex Water framework contractors (i.e. market tested costs from tendered frameworks). The cost per ha has then been multiplied by the number of hectares of each given habit within scope for each project. Project management costs are based on internal staff costs and an external quote for biodiversity accounting software.

Whilst costs used to derive our 'generic' management cost per ha are based on market tested costs, external benchmarking of overall delivery costs is problematic for habitat management, for the two principal reasons:

- Habitat variability: cost of management of the same given habitat varies hugely depending on context: topography, access, management unit size, presence of protected species or species of conservation concern etc can vary the cost of projects hugely from site to site.
- Wessex Water contractor requirements: we are essentially an engineering and construction company, holding land for operational purpose to produce a food-grade product and to treat wastewater. Our pre-qualification requirements of contractors and methods of working, procedures etc are stringent and hence the cost of engaging contractors for this type of work is not comparable to others completing similar work such as a Wildlife Trust or local authority.

We do of course recognise the importance of benchmarking to ensure cost efficiency for our customers. Given the inherent difficulty of benchmarking overall delivery cost, we have instead benchmarked the cost efficiency of the outcome delivered. We have done this by referring to the cost of statutory biodiversity credits; the prices of which are based on the cost to create, maintain and monitor different habitat types. We considered benchmarking against the open market on biodiversity credits but consider it inappropriate: the market is still developing and until it is saturated, costs will not reflect the stable market value over 30 years and, similarly, availability (and hence cost) varies between local planning authority areas, so there is not currently a consistent overview on costs provided by the open market.

We have undertaken the following process:

1. Undertaken a realistic assessment, through review of habitat definitions as per UKHab and condition assessments as per the statutory metric, as to how many biodiversity units (at target condition, i.e., over 30 years[9]; the 'lifetime' cost) will be created through this enhancement expenditure (i.e. net change from base) for each hectare of each habitat type within scope of the given scheme.
2. Calculated total cost of delivery (i.e. habitat management, monitoring, biodiversity accounting) per hectare for the lifetime (i.e. in line with the timescale of statutory credits).

[9] For our biodiversity performance commitment costs, we have set the 'lifetime' to 35 years as initial baseline survey and staggered capital delivery extends the time to target condition beyond 30 years from the commencement of the project.

3. Calculated the total lifetime cost per biodiversity unit delivered, adjusted for inflation forecasts (CPIH) on a year-by-year basis.
4. Used the 'unit shortfall summary' tab of the statutory biodiversity metric calculator tool to assign each given habitat within scope of the scheme to a tier [10] and hence referred to the statutory credit cost[11] (note we refer to cost if purchased at a 1:1 biodiversity unit: credit ratio) for each given habitat within scope of the scheme.
5. Calculated the lifetime cost savings per biodiversity unit of Wessex Water's delivery cost per biodiversity unit compared to the statutory credit (representing one biodiversity unit) cost.

The two sections below present the outcome of this benchmarking for the two schemes within scope of this section (i.e., Section 2) of this document.

2.4.4. Biodiversity Performance Commitment

Table 5 below presents the results of the above-described benchmarking exercise for our enhancement costs associated with the biodiversity performance commitment.

'Arable field margins tussocky', 'cereal crops other' and 'bracken' are not assigned a condition assessment in the metric and therefore no biodiversity unit net change can be shown and the cost efficiency of delivering enhancements in these habitats cannot be benchmarked using this method. We would note that a lack of biodiversity unit uplift does not necessarily indicate a lack of conservation gain. These (and indeed all) habitats may be enhanced for specific species of conservation concern and the metric does not quantify the value of improvements for specific species. Please refer to the 'Biodiversity' section of WSX-O01 for further information and examples of this. The data presented in Table 5 below demonstrate excellent overall cost efficiency of outcomes. Individual negative cost savings will be attributable to factors such as the area of the given habitat included within scope of the project, the nature of management required in the context of our operational landholding, the available 'uplift' in biodiversity units (either the 'value' of the habitat in the metric or the habitat's starting condition within this project) and whether the habitat interventions prescribed, although achieving conservation gain, necessarily achieve biodiversity unit increase. At the overall project level our cost savings significantly outweigh these negatives: with reference to the areas of each habitat type within scope of the project, the weighted average cost saving (of those habitats that can be benchmarked in this way) is 38%.

In addition to this quantitative cost benchmarking, we would also note that our methodology for the biodiversity performance commitment has been designed to give inherent efficiency of outcome in conservation terms, by opting to nominate our 'best' land for biodiversity and largest landholdings. Please refer to the 'Biodiversity' section of WSX-O01 for further information.

[10] Statutory credits are priced in tiers. Different habitats are grouped in tiers to reflect the cost and value of different habitats.
[11] As of 8th August 2024.

Table 5 – Benchmarking of enhancement costs associated with biodiversity performance commitment presented at Table 4 above, following the process described above.

Habitat type	Sum of BU increase at target condition	Sum of habitat area (ha)	Total cost over enhancement lifetime (35 yrs) (£ per ha)	Net change in BUs per ha over enhancement lifetime (35 yrs)	Total Cost of enhancement over lifetime (35 yrs) (£ per BU)	Tier	Cost of Statutory Credits at 1:1 (£)	Cost Savings (%)
Arable field margins tussocky	0	6.16	42502			A1	42000	
Bracken	0	15.65	69858			A1	42000	
Cereal crops other	0	5.14	42502			A1	42000	
Coastal saltmarshes and saline reed beds	40.22	16.53	83535	2.43	34329	A2	48000	28.48
Fens (upland and lowland)	4.4	1.83	110890	2.4	46229	A4	125000	63.02
Lowland calcareous grassland	3.57	2.86	110890	1.25	88816	A2	48000	-85.03
Lowland dry acid grassland	79.55	22.97	110890	3.46	32018	A1	42000	23.77
Lowland meadows	79.2	24.47	110890	3.24	34255	A1	42000	18.44
Lowland mixed deciduous woodland	104.53	59.47	59599	1.76	33906	A4	125000	72.88
Mixed scrub	30.69	13.4	59599	2.29	26021	A1	42000	38.04
Other neutral grassland	96.44	42	42502	2.3	18509	A1	42000	55.93
Other woodland; mixed	15.55	6.89	59599	2.26	26410	A1	42000	37.12
Ponds (Non-Priority Habitat)	4.63	2.02	179278	2.3	78028	A1	42000	-85.78

Habitat type	Sum of BU increase at target condition	Sum of habitat area (ha)	Total cost over enhancement lifetime (35 yrs) (£ per ha)	Net change in BUs per ha over enhancement lifetime (35 yrs)	Total Cost of enhancement over lifetime (35 yrs) (£ per BU)	Tier	Cost of Statutory Credits at 1:1 (£)	Cost Savings (%)
Purple moor grass and rush pastures	3.11	1.3	110890	2.38	46539	A4	125000	62.77
Ruderal/Ephemeral	3.78	3.31	59599	1.14	52095	A1	42000	-24.04
Upland oakwood	61.13	30.26	59599	2.02	29497	A2	48000	38.55
Wet woodland	22.37	8.91	59599	2.51	23747	A3	66000	64.02

Biodiversity enhancement of operational landholding

Table 6 below presents the results of the above-described benchmarking exercise for our enhancement costs associated with the biodiversity enhancement of our operational landholding.

'Non-cereal crops', 'cereal crops other' and 'bracken' are not assigned a condition assessment in the metric and therefore no biodiversity unit net change can be shown and the cost efficiency of delivering enhancements in these habitats cannot be benchmarked using this method. We would note that a lack of biodiversity unit uplift does not necessarily indicate a lack of conservation gain. These (and indeed all) habitats may be enhanced for specific species of conservation concern and the metric does not quantify the value of improvements for specific species. Please refer to the 'Biodiversity' section of WSX-O01 for further information and examples of this.

The data presented in Table 6 below demonstrate excellent overall cost efficiency of outcomes. As described above, the individual negative cost saving will be attributable to factors such as the area of the given habitat included within scope of the project, the nature of management required in the context of our operational landholding, the available 'uplift' in biodiversity units (either the 'value' of the habitat in the metric or the habitat's starting condition within this project) and whether the habitat interventions prescribed, although achieving conservation gain, necessarily achieve biodiversity unit increase. At the overall project level our cost savings are significantly positive: with reference to the areas of each habitat type within scope of the project, the weighted average cost saving (of those habitats that can be benchmarked in this way) is 80%.

In addition to this quantitative cost benchmarking, we would also note that our methodology for prioritising sites of biodiversity enhancement has been designed to give inherent efficiency of outcome in conservation terms.

Table 6 – Benchmarking of enhancement costs associated with biodiversity enhancement of our operational landholding presented at Table 4 above, following the process described above.

Habitat	Sum of BU increase at target condition	Sum of habitat area (ha)	Total cost over enhancement lifetime (30 yrs) (£ per ha)	Net change in BUs per ha over enhancement lifetime (30 yrs)	Total Cost of enhancement over lifetime (30 yrs) (£ per BU)	Tier	Cost of Statutory Credits at 1:1 (£)	Cost Savings (%)
Bracken	0	6.13	29646	0		A1	42000	
Cereal crops	0	0.84	9776	0		A1	42000	
Fens (upland and lowland)	5.47	1.59	59452	3.43	17323	A4	125000	86.14
Lowland calcareous grassland	72.62	24.29	59452	2.99	19883	A2	48000	58.58
Lowland dry acid grassland	5.57	1.25	59452	4.47	13311	A1	42000	68.31
Lowland meadows	157.31	41.94	59452	3.75	15850	A1	42000	62.26
Lowland mixed deciduous woodland	158.28	75.07	22195	2.11	10527	A4	125000	91.58
Mixed scrub	69.1	30.91	22195	2.24	9928	A1	42000	76.36
Non-cereal crops	0	2.72	9776	0		A1	42000	
Open Mosaic Habitats on Previously Developed Land	1.24	0.41	9776	3	3259	A2	48000	93.21
Other neutral grassland	647.33	285.04	9776	2.27	4305	A1	42000	89.75
Other woodland; mixed	66.36	30.05	22195	2.21	10049	A1	42000	76.07
Ponds (Non-Priority Habitat)	10.92	4.91	109128	2.22	49102	A1	42000	-16.91
Purple moor grass and rush pastures	1.28	0.37	59452	3.47	17131	A4	125000	86.30
Reedbeds	1.87	0.54	59452	3.45	17233	A1	42000	58.97

Habitat	Sum of BU increase at target condition	Sum of habitat area (ha)	Total cost over enhancement lifetime (30 yrs) (£ per ha)	Net change in BUs per ha over enhancement lifetime (30 yrs)	Total Cost of enhancement over lifetime (30 yrs) (£ per BU)	Tier	Cost of Statutory Credits at 1:1 (£)	Cost Savings (%)
Ruderal/Ephemeral	36.77	34.37	22195	1.07	20748	A1	42000	50.60
Traditional orchards	1	0.29	84290	3.45	24432	A1	42000	41.83
Wet woodland	62.03	26.46	22195	2.34	9468	A3	66000	85.65

2.4.5. Customer protection

We do not propose a price control deliverable (PCD) for this investment as expenditure is not material. For the Biodiversity performance commitment, we note that ODI incentives will protect the customer in the event of non-performance. For the biodiversity enhancement of our operational land holding, our management plan format includes targets, indicators of success and schedules monitoring visits from a suitably qualified ecologist, to ensure that management is implemented as specified and is proving effective.

We also note that our Catchment Panel, an independently chaired Panel of external environmental experts comprising senior representatives from Wildlife Trusts, Local Authorities, Environmental Regulators and academia, provides scrutiny to the environmental performance and plans of the company.

2.5. Other relevant evidence

2.5.1. Evidence provided previously

WSX03 - Long term delivery strategy

WSX06 - Customer research triangulation

WSX25 – Improving biodiversity

WSX47 – Outcomes tables commentary

Additional data table commentary for OUT4-5 biodiversity shared with Ofwat on 25 January 2024

2.5.2. Evidence provided elsewhere in our draft determination response

WSX-O01 – Performance and outcomes (Section 15 – Biodiversity)

Annex 1 – Biodiversity section of WSX06 – Customer research triangulation

Outcome 5: Biodiversity Improvement

KEY INSIGHTS

Biodiversity – insight summary from Sia Partners' Triangulation Report, September 2023		
Relative priority ranking: 6th Total number of Wessex Water customers engaged: 13,641 Total number of sources reviewed: 12		
Robustness of evidence	High	**Key sources of insight** E002 Wessex Water Annual Image Tracker, May 22 E005 Wessex Water Social Purpose, Apr 21 E008 Estimating Customers' WtP for Changes in Services at PR24, Sep 22 E014 Your Say Your Future E023 Affordability and Acceptability Testing Interim report on Qualitative research, May 23 E054 Online Panel Survey Apr 21: Have your say newsletter survey 25 future plans, Apr 21 E058 Awareness and perceptions of river water quality, Apr 22
Divergence of views	High	
Regional differences	Low	

Long-term insights
Please see Long-term insights section for summary of evidence informing our understanding of customers' views on this topic to inform our long term delivery strategy.

Triangulation comments
As the sources used for this outcome were both high in number and presented high individual robustness scores, the robustness of evidence score for biodiversity improvement has been found to be strong. As for the divergence of views, the biggest discrepancy relates to vulnerable customers, who are on average less willing to pay or not willing to pay at all for environmental developments, whereas non-vulnerable customers were willing to pay for advancements in excess of improving nature/wildlife. A tension was also identified between household and non-household customers where the former preferred environmental improvements to be spread across all catchments, whereas non-household customers preferred concentrating larger improvements on a smaller number of catchments. Lastly, future customers have been found to be more concerned about the loss of biodiversity compared to the rest of the population. As for the regional differences, only minor difference have been identified relating to a higher importance being placed on improving biodiversity by customers living in rural areas.

Key insight	Examples of supporting evidence
There is a desire amongst customers for Wessex Water to demonstrate improvements in its efforts to improve nature and wildlife.	• The principle of 'Improving the natural environment' is the number one for positive impact, but for most people is expected [E005] • Customers expressed a willingness to pay more for large improvements in supporting nature and wildlife. [E008] • 'Environment' is the most widespread area that consumers spontaneously mention Wessex could improve on. [E002] • Crucial to maintain Wessex reliability; the areas with greatest scope to improve are 'well regarded in the community' and 'care about environment'. [E002] • When customers were asked to choose the top five issues which they were most concerned about, 58% chose loss of biodiversity and natural resources. [E054] • The majority of customers want improvements to storm overflows to help ensure the river is a healthy habitat for wildlife. This was particularly high amongst older customers and those living in rural areas (70%) [E058]
Customers are interested to know how Wessex Water are doing this.	• 'How Wessex Water are protecting the environment' is one of the main topics that customers would like to know more about [E002]

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	• Customers reveal a need for more certainty around sludge treatment to remove micro-pollutants in order to be able to make an informed decision on investment in this area. [E023]

DETAILED INSIGHTS

Biodiversity improvement / Improve nature / wildlife

Insight sources: [E001] [E002] [E003] [E004] [E005] [E008] [E009] [E010] [E011] [E018] [E054] [E058]

Environmental commitment is seen as urgent (especially by stakeholders but increasing in importance for customers) and central to Wessex Water's purpose, so there is agreement amongst different stakeholders. Biodiversity improvement is seen as an urgent action and has an effect on the perception customers have on WW. Customers want to see WW care more about the environment. Both HH and NHH mostly agree on the potential courses of action and the effect of plastics (microplastics) is becoming increasingly concerning. Quantitative analysis has shown that the average customer is willing to pay for improvements in biodiversity, however, customers in higher socio-economic groups are willing to pay even more for additional improvements aside from improving wildlife.

Views on Wessex Water's purpose on improving nature and wildlife

- Environmental commitment is on the whole seen as urgent (especially by stakeholders but increasing in importance for customers) and central to Wessex Water purpose, so there was agreement that this should be highlighted. [E001]
- Stakeholders suggested that Wessex Water's purpose is to protect and improve nature, wildlife and communities, and ultimately create an environment where nature can look after itself. [E001]
- 'Environment' is the most widespread area that consumers spontaneously mention Wessex could improve on. This is higher on the agenda than price or bills. [E002]
- Crucial to maintain Wessex reliability; the areas with greatest scope to improve are 'well regarded in the community' and 'care about environment'. [E002]
- The top 3 topics that customers would like to hear from WW are [E002] :
  - Alerts about water services
  - How WW are protecting the environment
  - Practical saving and repairing advice
- Looking forward it underpins the need to push further to demonstrate environmental care and build a positive reputation in the community. [E002]
- The principle of 'Improving the natural environment' is the number one for positive impact, but for most people is expected (and some believe that first Wessex need to get the basics right of not damaging the environment). 'Growing skills in the community' and 'involving local communities in what to do' combine both 'new news' (potential to be noticed) with a largely positive reaction. [E005]
- Environment' is the most widespread area that consumers spontaneously mention Wessex Water could improve on. This has increased significantly since last year, driven by mentions of sewage release; mentions have nearly doubled since last year and is now a top-of-mind concern for 1 in 10 consumers. [E018]

Reasons for which customers have concerns regarding biodiversity

- Microplastics and air pollution are the biggest concerns of future customers by some margin. [E003]

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- River pollution from sewage is a significant concern with over a quarter of future customers and over a third of adults putting it in their top 3 concerns. [E003]
- In contrast to the adult population, future customers appear more concerned about loss of habitats and biodiversity – but a little less concerned about river pollution. This might be a stronger messaging idea for younger audiences. [E003]
- Some worry about effects on the environment of drought e.g. plant die off, fires, increased water usage and pressure of tourism on coasts and rivers. However, many see the occurrence of heatwaves as normalised – and enjoy the benefits of hot weather. [E004]
- Environmental concerns are more widespread than concerns over economic and social issues. [E004]
    - Climate change, single-use plastics and loss of biodiversity are the top 3 – followed by water pollution.

Prioritised courses of action regarding biodiversity

- Leading the improvement of the natural environment of our region through our work to adapt to and mitigate climate change, reduce pollution, conserve water, promote sustainable agriculture and eliminate single use plastic - is seen as a priority by future customers. [E005]
- Core 'expected' commitments - in particular improving the environment and investing in infrastructure - gain the most positive response. The principles that are beyond what people expect are not always the ones that make them feel more positive, but may have more potential to encourage re-evaluation of Wessex Water - and get noticed. [E005]
- Colleagues have rated the below points as important. [E005]
    - Delivering net environmental gain every year, improving the natural capital of our region through our work to reduce pollution, conserve water, promote sustainable agriculture and eliminate single use plastic.
    - Engaging directly with the communities we serve and other stakeholders, so our priorities reflect their priorities.
    - Ensuring everyone can benefit from and afford our services.
    - Growing skills and providing opportunities in a workforce that reflects the communities we serve through apprenticeships and education.
    - Supporting and driving economic growth across our region.
- Customers want improvements in some environmental attributes. [E008]
- Household customers typically preferred environmental improvements to be spread across all catchments, whereas non-household customers preferred concentrating larger improvements on a smaller number of catchments. [E009]
- There was a clear preference from both household and non-household respondents for going beyond the minimum requirements for the environmental ambition of the plan, to provide enhanced outcomes for biodiversity in the region and also benefit communities by improving local environmental quality. [E009]
- There was a strong preference for going beyond the minimum level of action to protect and improve the environment. Household respondents placed a high weight on outcomes that would improve the environment for the local communities; non-household respondents' strongest preference was for enhanced outcomes that benefited both biodiversity and local communities. [E010]
- Future customers are notably more concerned about biodiversity and less concerned about river pollution from sewage. [E003]
- Environmental ambition - Customers see water in the environment as a precious resource and there was a strong preference for the plan to go beyond the minimum requirements for environmental protection to provide even greater benefit for nature and wildlife. [E011]

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- When customers were asked to choose the top five issues which they were most concerned about, 58% chose loss of biodiversity and natural resources [E054]
- Most people want improvements to storm overflows to help ensure the river is a healthy habitat for wildlife. People in rural areas (70%), as well as people over 55 (71%), are more interested in prioritising rivers as healthy habitats for wildlife. [E058]

Willingness to pay of customers

- The main exception is the willingness to pay customers have for environmental attributes. We find that customers do have some willingness to pay for improvements in attribute J "supporting nature and wildlife" in the "adjusted" model. In the "simple" model, our results show that customers would be willing to pay to switch to an improvement in service for all environmental attributes. [E008]
- We find evidence of variation in willingness to pay across customer sub-groups. We find that relatively "advantaged" customer groups (e.g. with higher levels of education, not on a social tariff, or who do not report struggling to pay their bills, among others) are willing to pay for improvements in environmental attributes other than attribute J "supporting nature and wildlife". On the other hand, relatively "disadvantaged" customer groups (those interviewed through the vulnerable customer survey and those who report struggling to pay their bill) are not willing to pay for improvements in any attribute. [E008]
- While household customers are on average willing to pay for improvements in environmental attributes, the finding that disadvantaged groups are less willing to pay for improvements represents a challenge when selecting the improvements that WW should offer as part of its business plan. WW provides services that are "public goods" from which all customers benefit, so it cannot provide improvements for some customers but not for others. One potential avenue to address this challenge would be to adjust the tariff structure so that the burden of paying for improvements in environmental attributes does not fall on more disadvantaged customers, though developing such adjustments to the tariff structure would require further research and engagement. [E008]
- Overall, considering both our quantitative analysis of the survey data and the follow-up qualitative research, our research suggests that, on average, both household and non-household customers are willing to pay for improvements to environmental attributes, in particular for attribute J "supporting nature and wildlife". It would therefore be consistent with customers' preferences for WW to include in its PR24 business plan additional investments to achieve the proposed higher service levels for those attributes, provided that customer WTP is above the cost per customer of the investment. Further targeted qualitative research may be useful to understand exactly how customers would like WW to allocate the additional investment to particular environmental initiatives, since the descriptions of the service level improvements in this survey were necessarily high-level. [E008]
- For attributes that fall under priority area 2, i.e. environmental attributes, customers exhibit willingness to pay for incremental improvements in service. We see a positive incremental willingness to pay for most environmental attributes in both the simple and adjusted models. The exceptions are attributes G ("reducing wastewater pollution incidents") and I ("achieving net zero carbon emissions") in the adjusted model, where we do not find that customers are willing to pay for incremental improvements. [E008]
- In our preferred specification which simultaneously adjusts for population weights on both demographic and billing variables, customers are willing to pay just over £20 extra per year for a large improvement in supporting nature and wildlife (specifically, to create an additional 100 football pitches worth of wetlands and woodlands). [E008]

Priority ranking of 2030 goals – Your Say Your Future [E014]

Biodiversity has been given the **5th** rank for the most important goals for 2030.

- Biodiversity is a topic that many felt was personally important to them – although many lacked specific knowledge about possible improvements.
- Improving biodiversity was felt to benefit the local area e.g. by creating natural areas around reservoirs that people can enjoy.

+ Customers were reassured by the targets they were given that Wessex Water are 'doing their bit' in terms of protecting biodiversity.
+ Benefits to an area the size of 1,000 football pitches sounds impressive.

– Lack of detail around specific measures taken to improve biodiversity.
– Outcome area feels like an afterthought, with minimal content.
– Target is vague – what does 'improve' actually mean and how will this measured?

Annex 2 – Standard costing approach

All of our biodiversity and conservation AMP8 implementation actions have been costed bottom up using a standard template proforma, screen shots of which are provided below in Figures A2-1 and A2-2. This is to ensure that we have an auditable and consistent approach to costing our WINEP actions.

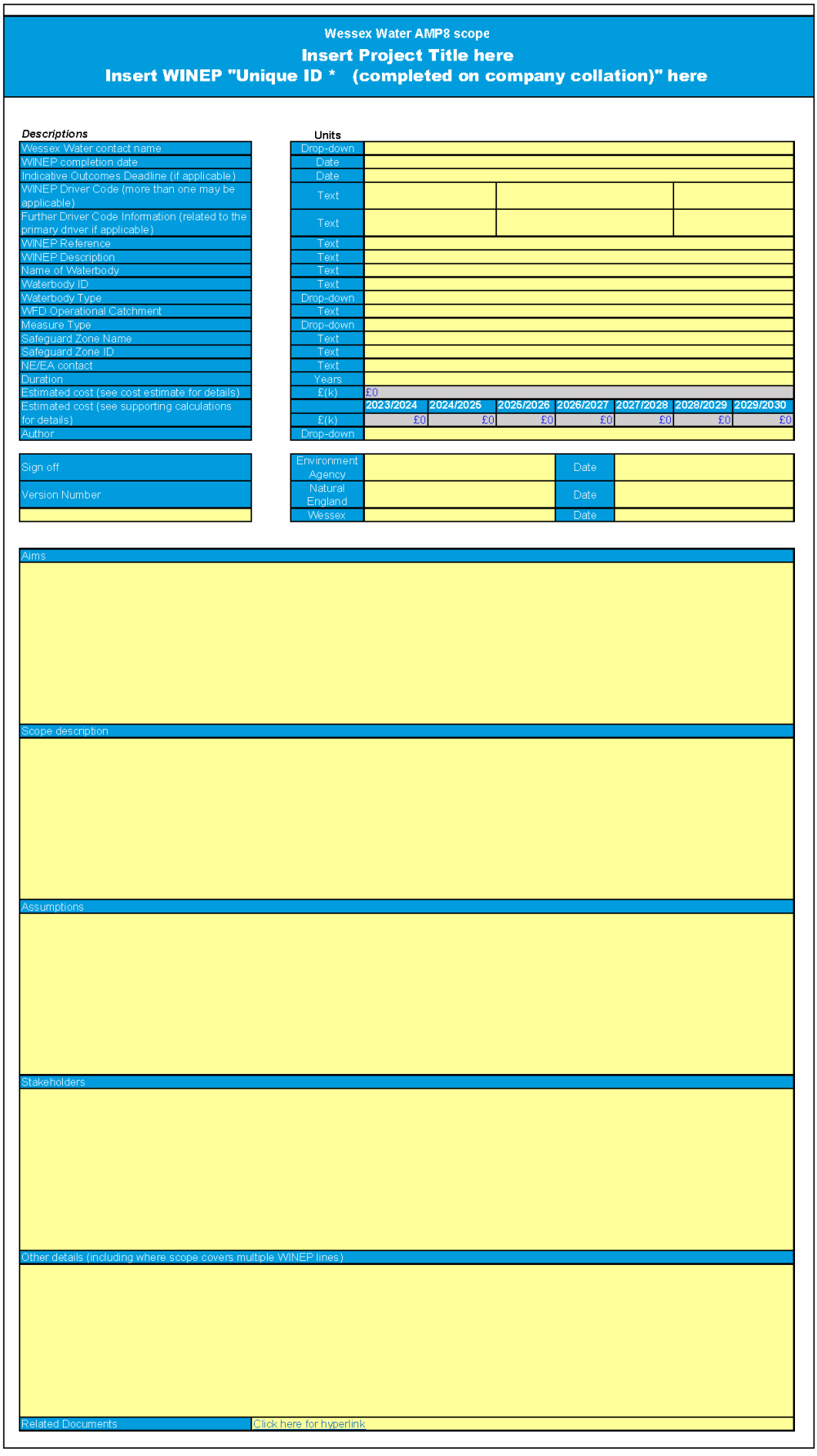
Where appropriate, we use consistent unit costs to cost our WINEP actions, with costs estimated using the number of units multiplied by the unit rate. The scale of the work required to deliver the WINEP action is informed by discussions with the environmental regulators over their expectations concerning the WINEP output and our own professional judgement and experience in delivering similar investigations in previous AMP cycles. This is the same approach that we used for costing our AMP7 programme.

This approach uses consistent unit costs for 'routine' elements of projects such as:

- Staff costs, using internal hourly cost recovery rates.
- Ecological monitoring, based on rates being charged by our suppliers in the delivery of our AMP7 WINEP actions (plant and bird survey etc).

Not all activities required to deliver WINEP actions are suitable to the application of unit rates. For example, where habitat improvement actions such as tree works or scrub removal are bespoke to a WINEP action and/or where we have not previously used an approach in delivering a WINEP Action. In these circumstances we have approached suppliers to obtain quotations or have used supplier quotes from delivering similar work in previous WINEP actions and scaling these up or down using professional judgement.

Figure A2-1 – WINEP Scoping proforma (summary worksheet)



Wessex Water AMP8 scope

Insert Project Title here

Insert WINEP "Unique ID * (completed on company collation)" here

Descriptions	Units							
Wessex Water contact name	Drop-down							
WINEP completion date	Date							
Indicative Outcomes Deadline (if applicable)	Date							
WINEP Driver Code (more than one may be applicable)	Text							
Further Driver Code Information (related to the primary driver if applicable)	Text							
WINEP Reference	Text							
WINEP Description	Text							
Name of Waterbody	Text							
Waterbody ID	Text							
Waterbody Type	Drop-down							
WFD Operational Catchment	Text							
Measure Type	Drop-down							
Safeguard Zone Name	Text							
Safeguard Zone ID	Text							
NE/EA contact	Text							
Duration	Years							
Estimated cost (see cost estimate for details)	£(k)	£0						
Estimated cost (see supporting calculations for details)		2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030
	£(k)	£0	£0	£0	£0	£0	£0	£0
Author	Drop-down							

Sign off	Environment Agency		Date	
Version Number	Natural England		Date	
	Wessex		Date	

Aims
Scope description
Assumptions
Stakeholders
Other details (including where scope covers multiple WINEP lines)
Related Documents — Click here for hyperlink

Figure A2-2 – WINEP Scoping proforma (costing worksheet)

Work Items	Unit	Rate	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	Total	Justification/comment
Staff time											
Senior Scientist	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Scientist	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
WECS Environmental Scientist	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Sampler	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Other	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Other	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Other	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Other	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Other	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
TOTAL (days)			0	0	0	0	0	0	0	0	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Consultant support											
Modelling	-									0.00	
Flow monitoring	£/day									0.00	
Ecological monitoring (terrestrial)										0.00	
Catchment management	-									0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Construction costs											
Gauging stations										0.00	
Boreholes										0.00	
Test pumping										0.00	
Pilot/ Trial										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Water quality analysis											
Water quality analysis (river suite)	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Specialist analysis (river + bacti)	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
TOTAL (number of samples)			0	0	0	0	0	0	0	0	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ecological monitoring (aquatic)											
Invertebrates (family)	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Invertebrates (species)	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Macrophytes	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Diatoms	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Flow monitoring	Days/yr									0	
	£/day		0	0	0	0	0	0	0	0.00	
Zooplankton	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
Other	number of samples									0	
	£/per sample		0	0	0	0	0	0	0	0.00	
TOTAL (days)			0	0	0	0	0	0	0	0	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Monitoring equipment											
Trailer (New)	£/unit									0.00	
Trailer (Existing inc maintenance)	£/unit/yr									0.00	
Autosampler (standard)	£/unit									0.00	
Sonde (New)	£/unit									0.00	
Sonde (Existing inc maintenance)	£/unit/yr									0.00	
New Esnet telemetry	£/unit									0.00	
Timeview licence	£/unit/yr									0.00	
Meteor licence	£/unit/yr									0.00	
OBH logger	£/unit									0.00	
Other	£/unit/yr									0.00	
Other	£/unit/yr									0.00	
Other	£/unit/yr									0.00	
Other	£/unit/yr									0.00	
Other	£/unit/yr									0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stakeholder/ Third Party											
Academic (PhD/Masters etc)										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Communications/PR											
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Other											
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
Other										0.00	
TOTAL (£)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GRAND TOTAL (£)			**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	

Annex 3 – Example of our tendering procedures

Priority Habitat Restoration – Bleadon Levels saltmarsh fencing tendering process

Bleadon Levels capital works focussed on installing fencing and gate infrastructure needed to facilitate conservation grazing to the saltmarsh habitat which was created in the managed retreat.

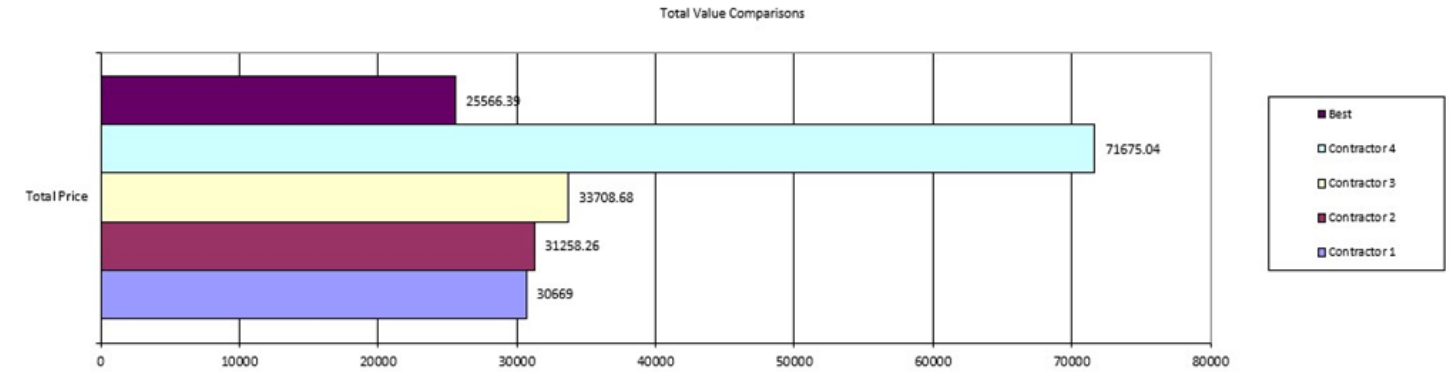
Approximately 1400m of fencing was installed, including 4 field gates and high spec stock netting to deter public access to grazing areas via climbing. This habitat is an important roost habitat for wading birds and next to the King Charles III England Coast Path in Somerset.

This tender was carried out through our Fencing Framework (Works 015/2017) via a NEC3 EC Short Framework Package Order, this type of contract is generally selected based on the value being <£100k and the risk being relatively low.

1	When the correct procurement route is decided (in this case via the framework) we can then create the tender within Bravo. To do this there are various questions that require completing: Project Title, Ref & Description. Dates in which it requires returning. Contract details, what division, who the procurement is for, approx. duration, contract type, tender meetings and compliances with our procurement rules. Ensure that all contractors are fully green status prior to issuing the tender.
2	Once this is complete along with the contract document, activity schedule and completion of the Bravo envelopes and any other documents that are required to be issue along with the tender for example drawings and specs etc. we can then gain peer approval to tender.
3	This is then sent to our supply chain team for a final check before it is issued out to tender.
4	Tender site meetings are then arranged, giving all contractors to opportunity to attend site.
5	After giving the contractors a reasonable timeframe to complete and submit the tender. The tender is then analysed and it is then reviewed by the project team for appropriateness.
6	If we feel that the contractors have not interpreted the works correctly or we have any issues we can hold a tender meeting to discuss this and re-send the tender out for a BAFO (best and Final Offer).
7	When we are happy to award, the awarding information including the analysis, cost spread between contractors, award recommendation and the reasoning for the decision is completed.
8	Financial approval is then gained from the correct peer with authorisation to approve.
9	Once this is approved the SCT will issue to contract for signing via DocUsign.

We tendered this project to 9 suppliers within our framework giving them approximately 3 weeks to complete the tender and attend a site visit. Only 4 of the 9 contractors returned a tender to be assessed as per the below. Out of these 4, only Contractor 3 and Contractor 4 attended the site visit.

Figure A3-1 – Example of AMP7 tendering and quotation for fencing a saltmarsh area used to derive unit costs for AMP8 WINEP actions (supplier names redacted)



	Contractor 1
Include	☑
Weight	100%
	Total Price
Overall Rank	1
	0
	0
	450
	1240
	700
	450
	13960
	4252
	4822
	450
	350
	3995
Subtotal	30669
Grand Total	30669

	Contractor 2
Include	☑
Weight	100%
	Total Price
Overall Rank	2
	1650
	1000
	665
	956.56
	1290
	665
	9880.83
	4273.92
	5479.83
	665
	645
	4087.12
Subtotal	31258.26
Grand Total	31258.26

	Contractor 3
Include	☑
Weight	100%
	Total Price
Overall Rank	3
	0
	0
	699.51
	1515
	1138.1
	699.51
	14800
	3634
	4700
	699.51
	569.05
	5254
Subtotal	33708.68
Grand Total	33708.68

	Contractor 4
Include	☑
Weight	100%
	Total Price
Overall Rank	4
	8809.1
	7500.75
	1057.2
	2009.92
	2045.9
	1057.2
	22978.48
	6813.07
	8735.43
	1057.2
	1022.95
	8587.84
Subtotal	71675.04
Grand Total	71675.04

	Total Price			
	Best	Best Bidder	Average	Average Deviation
	0	Contractor 1	2614.775	3097.1625
	0	Contractor 1	2125.1875	2687.78125
	450	Contractor 1	717.9275	169.63625
	956.56	Contractor 2	1430.37	332.09
	700	Contractor 1	1293.5	376.2
	450	Contractor 1	717.9275	169.63625
	9880.83	Contractor 2	15404.8275	3786.82625
	3634	Contractor 3	4743.2475	1034.91125
	4700	Contractor 3	5934.315	1400.5575
	450	Contractor 1	717.9275	169.63625
	350	Contractor 1	646.75	188.1
	3995	Contractor 1	5480.99	1553.425
Subtotal	25566.39		41827.745	
Grand Tota	25566.39		41827.745	

After reviewing all tenders received and speaking to the contractors it was identified that some were not comfortable with the time scales or the unexploded ordinance (UXO) issue within the site works.

Contractor 3 quoted a reasonable and realistic price, attended the site visit and were able to supply all that was needed within a workable timescale. They also additionally agreed for their employees to attend an awareness course on UXO's.