

SRN-DDR-036: WINEP Supporting Water Abstraction

Enhancement Cost Evidence Case

28th August 2024
Version 1.0



from
**Southern
Water** 

Contents

1.	Introduction	3
2.	Issues	3
3.	Our detailed response	3
3.1	More evidence	3
3.2	Company Specific efficiency challenge	4
4.	Supporting Evidence	11
5.	Business Plan Dependencies	23

1. Introduction

This document provides an update to the October 2023 submission of our Water WINEP programme. Following a small number of clarification requests from Ofwat no changes were proposed to the content of the enhancement case (SRN33 WINEP – supporting water abstraction) or the relevant tables. Following the release of the draft determination (DD) the Company urges OFWAT to reconsider its approach to reductions for this enhancement case. The enhancement case also covers the Biodiversity Performance Commitment, however issues and responses for this are covered within the PCs and ODIs document.

2. Issues

The Company challenges three of the positions and associated reductions set out in the DD:

1. More evidence (optioneering and cost efficiency) is needed to support the budgetary requirements of the Biodiversity and Conservation schemes 40% reduction applied.
2. A specific 20% company-wide efficiency challenge has been applied to the rest of the programme.
3. A per unit cost benchmark was applied for all investigations based on WINEP lines, resulting in 52% reduction in budget.

In combination these result in a 32% reduction vs our enhancement case, this scale of reduction will hinder the Company's ability to deliver its statutory obligation and is therefore unacceptable. It appears to be largely driven by how companies have interpreted the guidance and submitted their WINEP programme. We have taken an approach to group assets into single investigations/schemes for efficiency, whereas other water companies may have listed the individual assets as separate lines in the WINEP. Our approach was to group assets into a single WINEP scheme/investigation, which resulted in a single allocation of the benchmark value for the scheme/investigation, as opposed to listing all assets as individual schemes/investigations in WINEP whereby the benchmark value would have been applied to each line, at an asset level.

3. Our detailed response

3.1 More evidence

Of the 7 schemes within the Biodiversity and Conservation category there are 4 schemes that are proposed for AMP8 pending completion of the AMP7 investigation, which are shown as holding lines (as per WINEP guidance). Ofwat has requested that additional information is required to support the "best option for customers" and has applied a 20% adjustment. Ofwat's 20% reduction for optioneering is counter to the EAs mandated process, whereby the AMP8 requirement is locked down once the AMP7 investigations are complete.

Two of the AMP7 investigations have a December 2024 deadline and the options appraisal stage is not due to be complete until October 2024. A further 2 have completion deadlines of March 2025, with the options appraisal stage due in January 2025. It is therefore proposed that we will submit the required options information for 2 schemes in October and the remaining 2 in January when it is available.

Ofwat deemed that the remaining 3 schemes in this category met the required level of information, however a blanket 20% adjustment was applied to the whole category.

For the reasons above we consider this an unreasonable approach to take and request the 20% reduction be removed across the category.

A further 20% adjustment was made for cost efficiency, where evidence is required to show that this has been considered and assured by a third-party. As 4 out of the 7 schemes are reliant on the outcomes of pending AMP7 investigations, as required by the EA, we will submit the required evidence to support the cost efficiency in October 2024 and January 2025, once the relevant information is available.

For the 3 remaining schemes we have provided third-party assurance (see supporting evidence section below) on the cost estimates of the best value options. Econometric models are not available to validate each scheme, so a third-party subject matter expert's view has been provided as assurance. WSP were the consultants selected to undertake this assessment. WSPs finding were that "overall it is considered that the costs presented are reasonable and efficient".

For the reasons above we consider this an unreasonable approach to take and request this further 20% reduction be removed across the category.

Action: options to resolve this significant impact on funding are to:

- 1. remove the 20% reduction applied to optioneering for the whole Biodiversity and Conservation category as the formal WINEP process has been followed. The 20% reduction on these 7 schemes equates to £5.22m.**
- 2. remove the 20% reduction applied to cost efficiency for the whole Biodiversity and Conservation category as the formal WINEP process has been followed. The 20% reduction on these 7 schemes equates to £5.22m.**
- 3. submit the required supporting evidence for optioneering and cost efficiency, once information is available in October 2024 and January 2025 to recover the 40% adjustment for the 4 holding line schemes.**
- 4. remove the 20% reduction applied to the 3 schemes that are the subject of completed AMP7 investigations where Ofwat do not have concerns over the optioneering process. The 20% reduction on these 3 schemes equates to £1.48m.**
- 5. remove the 20% reduction applied to the 3 schemes that are the subject of completed AMP7 investigations where Ofwat requested third-party assurance for cost efficiency. The 20% reduction on these 3 schemes equates to £1.48m.**

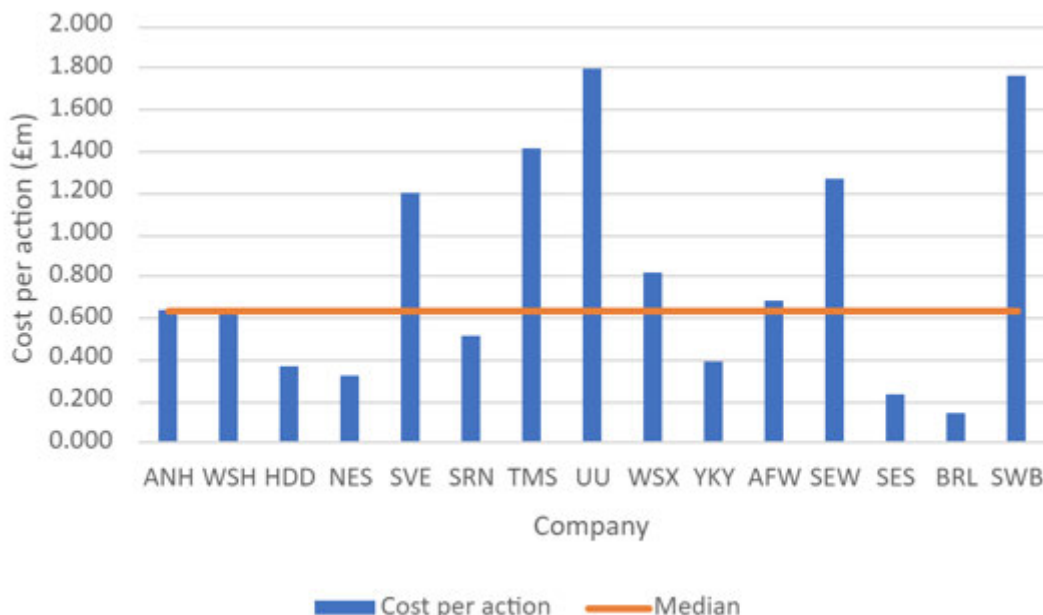
3.2 Company Specific efficiency challenge

Drinking water protected areas (DrWPA)

The median benchmark cost per action as calculated by Ofwat in the W-Drinking-Water-Protected-Areas spreadsheet is £0.630m. There are 45 WINEP actions under this driver for Southern Water. Using the calculated median benchmark value (£0.630m) and number of WINEP actions (45), a total budget for this category would be £28.350m. Our programme was costed at £22.775m which is £5.575m (19.7%) below the median benchmark calculated budget.

A 20% company specific efficiency challenge value was applied reducing the budget we requested to £18.22m, which is £10.13m (35.7%) below the median benchmark value. The programme has been designed to be efficient by the very nature of the approach and the original cost proposal demonstrates this. We are experienced in delivering this kind of work (through AMP6 and 7) and developing schemes and costs, and have produced an efficient programme, with costs substantially below the benchmark threshold. We understand that the Company is assumed to be as inefficient in shallow dive areas as it is in modelled areas. We understand this approach where no better evidence is available. However, in a case where Ofwat has evidence that the programme is in fact efficient, it is unreasonable and unfair to apply an efficiency

challenge predicated on the assumption that it is not. In this case the Ofwat commentary in the materiality & shallow dive worksheet in the W-Drinking-Water-Protected-Areas spreadsheet states that the programme is “efficient against indicative benchmark”. Applying this further efficiency value pushes the programme below the deliverable threshold. We consider that applying the generalised challenge, where evidence of efficiency is available, creates double counting and is unreasonable and Ofwat should allow budget based on its acknowledged assessment of the programme’s efficiency.



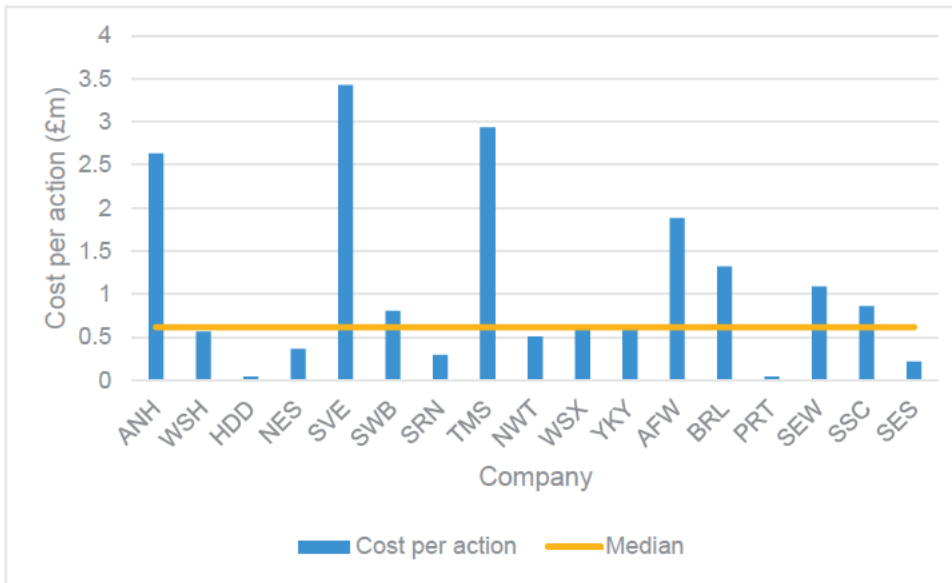
The above chart is from the Ofwat DD-W-Drinking -Water-Protected-Areas spreadsheet.

Action: options to resolve this significant impact on funding are to:

1. remove the 20% efficiency reduction on this already efficient programme. The 20% reduction on this entire category equates to £4.56m.

Water framework Directive (WFD)

The benchmark calculated in Ofwat’s W-Water-Framework-Directive spreadsheet uses 4 as the number of WINEP WFD actions, however we have 6 official lines in WINEP (some have shared funding requirements with other WINEP drivers and the budgetary requirement sits outside of this category, however the official WINEP obligation still exists). Changing the calculation to 6 obligations does not change the calculated baseline median value in the W-Water-Framework-Directive spreadsheet, Unit costs workbook. However, it is significant that the 6 schemes incorporate 28 Southern Water assets. This was made clear in the enhancement business case in table 5-5. The WINEP guidance specifically stated that “synergies between WINEP actions should be explored to maximise cost effectiveness” which we incorporated when designing the programme. The 6 schemes that we submitted in WINEP could have been separated out into 28 schemes, but for efficiency were condensed into 6. Taking this information into account and using the 28 assets with a total budget request of £8.225 the recalculated cost per action for Southern Water would therefore reduce from £2.056m cost per WINEP WFD action to £0.293m per action at an asset level. When this value is factored into the median calculation (W-Water-Framework-Directive spreadsheet, Unit costs workbook) it reduces the calculated benchmark median value from £0.807m to £0.617m.



The chart above has been produced using information in the W-Water-Framework-Directive spreadsheet, Unit cost worksheet. The updated value of £0.294 was used as representative for the SRN cost per action and the median benchmark value update to £0.617m as per the above commentary. If we were to separate out these lines in WINEP and applied the £0.617m benchmark value per asset scheme the budget request would increase from £8.22m to £17.276m (a 110% increase).

Using this approach we have demonstrated that we are significantly below the calculated median benchmark value. The programme has been designed to be efficient by the very nature of the approach and the original cost proposal demonstrates this. We are experienced in delivering this kind of work (through AMP6 and 7) and developing schemes and costs, and have produced an efficient programme, with costs substantially below the benchmark threshold. We understand that the Company is assumed to be as inefficient in shallow dive areas as it is in modelled areas. We understand this approach where no better evidence is available. However, with the above justification that the programme is in fact efficient, it is unreasonable and unfair to apply an efficiency challenge predicated on the assumption that it is not. Applying this further efficiency value pushes the programme below the deliverable threshold. We consider that applying the generalised challenge, where evidence of efficiency is available, creates double counting and is unreasonable and Ofwat should allow budget based on the described assessment of the programme's efficiency.

Action: options to resolve this significant impact on funding are to:

1. remove the 20% efficiency reduction on this already efficient programme. The 20% reduction on this entire category equates to £1.64m.
2. resubmit separate scheme WINEP lines updating WINEP (WINEP lines will increase from 6 to 28, applying the current Ofwat benchmark, the budget allocation would increase to £17.276m).

Invasive Non-native Species (INNS)

The Ofwat W-INNS spreadsheet does not provide a benchmark calculation as per the above Ofwat categories. The median benchmark value is not available in the W-INNS spreadsheet, and neither is the information allowing the value to be calculated. The number of actions per water company are not provided allowing for a comparison to be made. We are therefore unable to comment on the efficiency in comparison of our programme.

However as per the above, the 2 WINEP scheme action lines and 1 WINEP monitoring line as listed in WINEP, encompass 66 Southern Water assets for a total budget request of £4.967m, shown in the enhancement business case in table 5-3. This equates to £0.200m per asset for the schemes and £0.025m per asset for the monitoring. The 20% company specific efficiency challenge has been applied, with



commentary stating “below shallow dive threshold”. A comparison cannot be made as per the above, in the absence of the benchmark, however this programme, as per the others, has been developed to maximise cost effectiveness by combining similar schemes. The 20% company specific efficiency that has been applied means that we can no longer deliver an effective INNS control programme on all of our priority sites.

Action: option to resolve this significant impact on funding are to:

- 1. remove the 20% efficiency reduction on this already efficient programme. The 20% reduction on this entire category equates to £0.99m.**

Monitoring

The Ofwat W-Discharge-Monitoring spreadsheet does not provide a benchmark calculation as per the above Ofwat categories. The median benchmark value is not available in the W-Discharge-Monitoring spreadsheet, and neither is the information allowing the value to be calculated. The number of actions per water company are not provided allowing for a comparison to be made. We are therefore unable to comment on the efficiency in comparison of our programme.

However, of the 4 water companies that submitted costs for this activity SRN were the lowest. The 20% company specific efficiency challenge has been applied in the DD, with commentary stating “below shallow dive threshold”. A comparison cannot be made as per the above, in the absence of the benchmark, however this programme, as per the others, has been developed to maximise cost effectiveness.

Action: option to resolve this significant impact on funding are to:

- 1. remove the 20% efficiency reduction on this already efficient programme. The 20% reduction on this entire category equates to £0.05m.**

Investigations

The full scale and complexity of the investigations does not seem to be taken into account when the benchmark modelled allowances were calculated.

Ofwat asked for investigations to be categorised into 3 categories: desk based, simple modelling and complex modelling then only applied a flat median unit cost rate for investigations as opposed to an expected tiered approach. As shown in the supporting evidence section, all of our investigations are more complex in nature with no desktop studies. This makes application of the median rate unrepresentative and unfair.

The Environment Agency WINEP guidance specifically stated that “synergies between WINEP actions should be explored to maximise cost effectiveness” which we duly incorporated when designing the programme. As part of the WINEP process we grouped individual investigations with the same WINEP driver into regional investigations to make for a more efficient delivery plan. For some of these an asset level component link was made to the main investigation in WINEP, however for others the named assets included were described within the submitted narratives.

Essentially for SRN there are 15 individual action ID lines listed in WINEP for investigations, covering 50 component lines listed in WINEP. However, the 15 investigations cover a total of 79 individual assets and 2 company-wide studies. The SRN WINEP investigations programme was consolidated into 15 requirements as opposed to 81 requirements. In effect, it appears that we have been penalised for following guidance and using a grouped approach to investigations. The table in the supporting evidence section provides a comprehensive view of the 15 investigations, the number of assets included in the investigations, the number of component lines represented in WINEP for each investigation, the complexity of the investigation and a comment on the benchmark value proposed by Ofwat.

The final modelled allowance (£5.829m for SRN) was an average of the unit cost benchmark allowance (£6.452m) and the WINEP group benchmark allowance (£5.21m).

In the Unit cost worksheet, the median unit cost modelled allowance was derived using the total requested budget (£12.047m for SRN), which was divided by the total number of investigations (15 for SRN) to produce a unit cost per action (£0.803m in this instance). A median unit cost was then used (£0.43m) to calculate the median unit cost modelled allowance (£6.452m for SRN). It would be more appropriate to calculate the modelled allowance at the component level or asset level as this would be more representative of the scale of the investigations. The table below shows the recalculated median unit cost modelled allowance using the different scenarios.

Total requested budget (£m)	Total number of investigations	Unit cost per action (£m)	Median unit cost (£m)	Median unit cost modelled allowance (£m)
12.047	15	0.803	0.43	6.452
Total requested budget (£m)	Total number of component investigations	Unit cost per action (£m)	Median unit cost (£m)	Median unit cost modelled allowance (£m)
12.047	50	0.241	0.241 (*)	12.047
Total requested budget (£m)	Total number of assets investigated	Unit cost per action (£m)	Median unit cost (£m)	Median unit cost modelled allowance (£m)
12.047	81	0.149	0.213 (**)	17.284

(*) used data provided in the Inputs_WINEP_Action_List to calculate component levels for all companies and the subsequent median unit cost value.

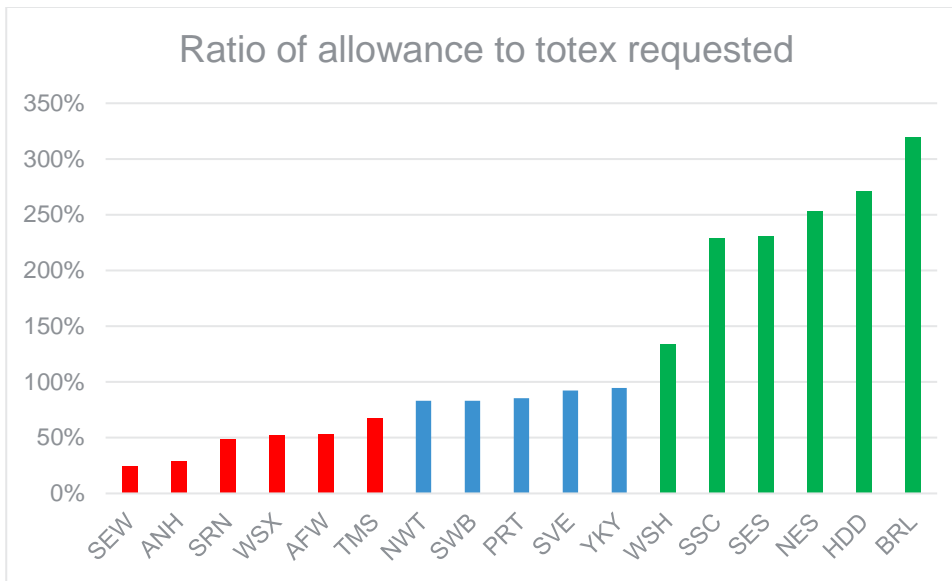
(**) only updated the component level value for SRN to 81 to cover all assets related to the investigations.

Similarly, in the WINEP_Group_Unit_Cost worksheet the component information is provided but does not appear to have been used in the WINEP group median unit cost calculation. SRN would propose that a total number of assets is considered as representative to calculate the WINEP group unit value.

Overall, the model for investigations gives a highly skewed outcome with the majority of companies either getting vastly more or vastly less than requested in their plans. It is likely that this grouping effect could be the explanation behind it, with companies interpreting guidance in different ways.

For example, BRL, a company half the size of SRN had 18 investigations (comprising 22 components) and received an allowance of £6.3m despite asking for only £1.9m (3.3x more). SRN had 15 investigations (comprising 50 components or 81 assets) and got an allowance of £5.8m despite asking for £12.0m. On the face of it, the difference between requirements and how they have been grouped seems to explain the skewed outcome of the modelling. This could be corrected by asking for the full list of requirements and using that as the explanatory variable in the model.

This disparity is highlighted in the graph below:



The 52% reduction in budget means the investigations programme is undeliverable.

Action: options to resolve this significant impact on funding are to:

1. **agree an uplift in investigation funding based on the scale and complexity of our investigation programme (from £5.829m to £12.05m), or**
2. **resubmit separate investigation WINEP lines updating WINEP (WINEP lines will increase from 15 to 81, the Ofwat WINEP group median unit cost benchmark would then need to be recalculated and applied to the 81 lines).**

Summary

The above explanation demonstrates that we have developed and submitted a cost-efficient programme. The new WINEP guidance reflected a step change in environmental policy and legislation, and has provided the opportunity to pivot from a least cost to a best value approach, unlocking the potential for collaboration to deliver wider benefits for the environment and society. By collaborating with others, we will not only enhance our ability to deliver but also be contributing to elevating our collective ambition and power to make improvements to customers at scale and pace.

The water WINEP programme has been designed to provide the scientific evidence base underpinning our understanding of the water resource and water quality issues in our water body catchments, and addressing the issues identified at source, as well as enhancing the natural environment to develop a sustainable cost-effective programme.

The challenge we are addressing remains aligned to our enhancement case (SRN 33) focusing on our customer priorities to be environmentally responsible: leaving the environment better than we found it, respecting and valuing nature in assessing solutions and caring for rivers and beaches. At PR24, the focus has shifted to “protect and restore the environment and habitats; damage is not tolerated at any level”. Southern Waters Customer Panel Group are fully supportive of the approach we are taking to use more catchment and nature-based solutions to enhance our environment. Southern Water has listened to their customers and embraced the principles and ambition embedded in the PR24 WINEP guidance and has prepared an ambitious AMP8 delivery programme, focused on making significant traction on environmental improvements to deliver better outcomes for our customers.



The WINEP is a statutory environmental obligation. We will be monitored closely for delivery of our AMP8 WINEP by the EA and any late or undelivered actions will have a bearing on our annual environmental performance assessment (EPA). The water WINEP programme will ensure there is a resilient water supply for our customers, at the same time ensure there is the right balance of water available for the environment. The WINEP will support delivery of the Biodiversity performance commitment (PC).

The WINEP programme we have codesigned and codeveloped is already efficient, it maximises nature-based solutions and partnership working. The WINEP action specification forms have been submitted to the EA and NE, setting out a clear programme of activity and deliverables needed to fulfil the requirements of the scheme/investigation drivers. The 32% reduction applied to this already efficient programme means that the regulatory agreed statutory actions are now undeliverable.

4. Supporting Evidence

Please see submitted appendix for additional information: SRN-DDR-036 - Appendix A - WSW_AMP_8_costs_forsharing

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

The following table incorporates data from the Water – Investigations: enhancement expenditure model. The information regarding number of assets /catchments is taken from table 5-7 in the SRN33 WINEP – supporting water abstraction enhancement case.

Company Acronym	WINEP Action Reference	Ofwat categories	Investigations Line	Presented WINEP Action Costs (£m)	WINEP Group Median Unit Cost (£m)	# SWS assets/ catchments included in the investigation	Ofwat categories:			Submission in WINEP	Comment
							Desk based	survey, monitoring or simple modelling	multiple surveys, and/or monitoring locations, and/or complex modelling water		
SRN	08SO100009	WFD-Ground Water	CW3.31-CW3.33	0.197	0.544	7		x		7 actions listed in WINEP	Substantially below the calculated median benchmark value
SRN	08SO100010	Drinking Water Protected Areas	CW3.31-CW3.33	1.582	0.361	10		x		10 actions listed in WINEP	<p>Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed.</p> <p>This is a programme of intrusive investigations, which will include the drilling of cored boreholes to better understand the nitrate water quality risk to 10 of our drinking water supplies. This will allow us to reduce uncertainties in the existing nitrate trend models to allow for more confidence in making longer term strategic decisions around the effectiveness of catchment management mitigation.</p>

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

SRN	08SO100011	Drinking Water Protected Areas	CW3.31-CW3.33	0.268	0.361	11		x		1 action listed in WINEP	Substantially below the calculated median benchmark value
SRN	08SO100015	Environmental destination	CW3.31-CW3.33	0.484	0.582	7		x		7 actions listed in WINEP	Substantially below the calculated median benchmark value
SRN	08SO100016	Environmental destination	CW3.31-CW3.33	0.409	0.582	3		x		3 actions listed in WINEP	Substantially below the calculated median benchmark value
SRN	08SO100019	INNS	CW3.31-CW3.33	2.551	0.225	6		x		1 action listed in WINEP	<p>Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed.</p> <p>The transfer of INNS is a substantial issue. This investigation forms part of a national programme and at the same time aims to understand the water quality and volume of each of the transfers to determine quantities and viability of chemical treatments is required. This will require a monitoring programme for each. In addition, a feasibility study for the engineering solutions is required.</p>
SRN	08SO100025	Biodiversity	CW3.31-CW3.33	0.263	0.168	company wide		x		1 action listed in WINEP	<p>This investigation spans the entire Southern Water area. The investigation will focus on assets owned and operated by Southern Water, but will also consider</p>

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

											wider eel and fish passage pressures within the catchment. This will also for AMP9 schemes to be developed to improve fish passage at a broader scale.
SRN	08SO100026	25 Year - Env Plan	CW3.31- CW3.33	1.878	0.293	5		x		1 action listed in WINEP	<p>Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed.</p> <p>This is an across organisations collaborative investigation to assess the potential to link delivery of multiple schemes for efficiency, while maximising natural and social capital. Pilot delivery schemes will be trialled in AMP8 to address issues such as INNS & SSSI management. The budget request is to undertake this work in each of our 5 priority surface water catchments.</p>
SRN	08SO100027	Biodiversity	CW3.31- CW3.33	1.041	0.168	5		x		1 action listed in WINEP	<p>Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed.</p> <p>This investigation is to understand the wider catchment issues that are impacting on chalk stream habitat within 5 river catchments spanning our total water operational area. The aim is to fully understand the hydro morphological pressures and</p>

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

											codevelop long term chalk stream enhancement delivery plans.
SRN	08SO100028	25 Year - Env Plan	CW3.31- CW3.33	0.416	0.293	2		x		1 action listed in WINEP	Scale of this investigation not taken into account. This investigation will use 2 scenario catchments; 1 chalk stream catchment and 1 clay/sand catchment. The investigation aims to better understand the climate change risks to, and from, Southern Water assets. This will include changes to: hydroecology, water quality, increased floods and droughts, farming practices etc.
SRN	08SO100030	Biodiversity	CW3.34- CW3.36	0.718	0.168	5			x	1 action listed in WINEP	Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed. This complex investigation will assess the impact from our abstraction on the SSSIs. A conceptual model will be developed incorporating all known information, a monitoring plan will be developed and implemented with 2 full years of ecological and water quality monitoring. Final conceptualisation and impact

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

											assessments will be completed to determine the level of impact and options will be appraised to manage the impact. The best value options will inform the AMP9 delivery scheme.
SRN	08SO100031	Biodiversity	CW3.34- CW3.36	0.624	0.168	3			x	1 action listed in WINEP	<p>Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed.</p> <p>This complex investigation will assess the impact from our abstraction on the SSSIs. A conceptual model will be developed incorporating all known information, a monitoring plan will be developed and implemented with 2 full years of ecological and water quality monitoring. Final conceptualisation and impact assessments will be completed to determine the level of impact and options will be appraised to manage the impact. The best value options will inform the AMP9 delivery scheme.</p>

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

SRN	08SO100032	Biodiversity	CW3.34- CW3.36	0.779	0.168	2			x	1 action listed in WINEP	Scale and complexity of the investigation not taken into account. This investigation is undeliverable at the benchmark value proposed. This complex investigation will assess the impact from our abstraction on the SSSIs. A conceptual model will be developed incorporating all known information, a monitoring plan will be developed and implemented with 2 full years of ecological and water quality monitoring. Final conceptualisation and impact assessments will be completed to determine the level of impact and options will be appraised to manage the impact. The best value options will inform the AMP9 delivery scheme.
SRN	08SO100036	WFD-Ground Water	CW3.34- CW3.36	0.374	0.544	13			x	13 actions listed in WINEP	Substantially below the calculated median benchmark value
SRN	08SO100042	Environmental destination	CW3.31- CW3.33	0.463	0.582	company wide			x	1 action listed in WINEP	Substantially below the calculated median benchmark value
Total				£ 12.05m	£ 5.21m	(79 + 2 company-wide) 81 total assets	0	11	4	50 component lines	

Table 5-7 from the SRN33 WINEP – supporting water abstraction enhancement case which names the SWS assets related to each investigation line.

Action	Need	Description of best value option	Related to (SWS) Assets:	Option eering	Optionee ring details	Cost efficiency					AMP8 budget
						Similar sc heme /inv estigation outturn	External co st benchma rking	AMP7 i nvestigation	Nature b ased sol ution	Delivers wider environmental benefits	
Groundwater At Risk investigations DrWPA_INV / 08SO100009 / S	Assessment of "At Risk" substances impacting drinking water supplies	Investigations into risks to groundwater drinking water quality, including: water quality monitoring, catchment risk assessment, source/pathway/root cause analysis, understanding treatment challenges and constraints.	Balsdean, Barton Stacey, Bowcombe, Danaway, Selling, Throwley, Trundlewood	N/A	N/A						£196,660
Groundwater intrusive investigations DrWPA_INV / 08SO100010 / S	A number of groundwater sources need investigations to improve the calibration of the nitrate trend models	The aim is to investigate the nitrate transport in catchments which have been shown not to follow the standard nitrate trend model processes. The investigation may also include drilling cored boreholes to better understand nitrate pore profile with depth.	Cuxton Dene, Fawkham, Higham, Lord of the Manor, Sparrow Castle, Martin Mill, Overton, Chilbolton, Timsbury, Falmer	N/A	N/A						£1,581,607
Nitrate timebomb DrWPA_INV / 08SO100011 / S	Enhancing the AMP7 Ofwat Innovation Fund Nitrate Timebomb project	Enhancements to the project to allow it to be used as a decision making tool for the design and implementation of nitrate reduction measures including what wider benefits for nature and society	Whitchurch, Overton, Barton Stacey, Chilbolton, Ibthorpe, Horsebridge, Timsbury, Easton, [REDACTED], Twyford	N/A	N/A						£268,457

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

		could be secured through this approach									
Integrated Catchment Management plans 25YEP_INV / 08SO100026 / NS	Collaborative planning task with other catchment stakeholders – considering the catchment as a whole system.	Investigation focused on collating risks, issues and evolving internal SWS Plans, and working with the Catchment Partnerships and other key stakeholders locally to align future catchment and nature-based solutions and actions to achieve wider outcomes for natural capital and social value.	[REDACTED]	N/A	N/A						£1,878,159
Chalk Stream resilience NERC_INV / 08SO100027 / S+	Chalk stream strategy published by Catchment Based Approach (CaBA)	Working collaboratively with catchment Partners, to review a number of Chalk stream catchments within our operational area, to understand the hydro morphological pressures, and co-develop long term Chalk stream enhancement delivery plans.	Anton, Black Ditch (W Sussex), Burpham Trib (R.Arun), Ferring Rife, Itchen, Kingsclere Brook, Nailbourne and Little Stour, Test, White Drain	N/A	N/A						£1,040,531
Cridmore Bog SSSI and Wilderness SSSI Investigations SSSI_INV / 08SO100030 / S+	Impact of augmentation scheme abstraction on SSSI status	Investigation into the groundwater dependence of Cridmore Bog and Wilderness SSSI's and if there is connection between them and the Lower Greensand aquifer.	Isle of Wight augmentation scheme	N/A	N/A						£717,966

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

Test Long Term Destination Investigation EDWRMP INV / 08SO100015 / S	Understanding of the link between CSMG flow targets and the ecology of the river	This investigation is to review Groundwater abstractions in the Test catchment, in the context of the long-term destination guidance from the Environment Agency.	Whitchurch, Overton, Barton Stacey, Chilbolton, Ibthorpe, Horsebridge, Timsbury	N/A	N/A							£483,526
Itchen Long Term Destination Investigation EDWRMP INV / 08SO100016 / S	Understanding of the link between CSMG flow targets and the ecology of the river	This investigation is to review Groundwater abstractions in the Itchen catchment, in the context of the long-term destination guidance from the Environment Agency.	Easton, [REDACTED], Twyford	N/A	N/A							£409,138
Beeding Hill to Newtimber Hill SSSI investigation SSSI INV / 08SO100031 / S+	Impact of groundwater abstraction on SSSI status	Investigation into the groundwater dependence of Beeding Hill to Newtimber Hill SSSI's, and if there is a potential connection between the sites and the Chalk Groundwater abstractions from the Worthing Chalk.	Mossy Bottom, Mike Oak	N/A	N/A							£624,319
Arundel Park SSSI investigation SSSI_INV / 08SO100032 / S+	Impact of groundwater abstraction on SSSI status	Investigation into the groundwater dependence of the Arundel Park SSSIs, and if there is potential connection between the site and Chalk Groundwater abstractions near the area.	Arundel, Madehurst	N/A	N/A							£779,358

SRN-DDR-036 WINEP Supporting Water Abstraction
Enhancement Cost Evidence Case

Brighton Chalk WFD investigation WFDGW NDINV / 08SO100036 / S	Impact of groundwater abstraction on groundwater body status	This investigation is to review the Chalk Groundwater abstractions in the Brighton Chalk Groundwater body, and review their interconnectivity to each other, and the Groundwater body as a whole.	Balsdean, Falmer, Goldstone, Housedean, Lewes Road, Mile Oak, Mossy Bottom, Newmarket, Patcham, Shoreham, Southover, Surrenden, Steyning	N/A	N/A							£374,339
Fish passage investigation NERC INV / 08SO100025 / S+	Impact of instream structures on fish passage	Investigation to understand if SWS owned and operated instream structures are having a negative impact on fish passage.	Whole SWS area	N/A	N/A							£263,254
INNS management on raw water transfer assets investigation INNS_INV / 08SO100019 / S	Reduce the risk of spread of INNS within the existing water transfer network	Detailed feasibility investigation for INNS management on raw water transfer sites, including the successes of the targeted pilots (see the INNS IMP driver) to inform options for AMP9 implementation	Powdermill, Darwell, Bewl, [REDACTED], Brede, Beauport, [REDACTED]	N/A	N/A							£2,550,682
Catchment resilience for climate and biodiversity investigation 25YEP_INV / 08SO100028 / NS	Understanding of the climate change risk to, and from, SWS assets.	Investigation comparing two different river systems assessing environmental quality, wastewater discharges, impounding structures etc to provide conceptual worked examples that can then be applied to	[REDACTED]	N/A	N/A							£416,212

SRN-DDR-036 WINEP Supporting Water Abstraction
 Enhancement Cost Evidence Case

		other rivers across the SWS area.									
Supporting WRSE regional plan	Opportunities for catchment solutions within the regional plan (WRSE)	Investigation to identify catchments where regional schemes could work in conjunction with company investigations, or by themselves (where a company scheme isn't being undertaken) to improve the health of catchments	Whole SWS supply area	N/A	N/A						£463,036
EDWRMP INV \ 08SO100042 \ S											
Total											£12,047,244

5. Business Plan Dependencies

Chapters	
Business cases	
Technical annexes	
Enhancement cases	SRN33 WINEP – Supporting Water Abstraction
Cost adjustment claims	
Ofwat test areas	
Assurance	
Other – please specify	Biodiversity PC

Data Tables impacted by the representation:

Table/s Impacted	Data Lines Impacted
CW12	11-41
CW13	10-53
CW14	10-53
CW15	10-120
CW16	10-120
OUT4	Biodiversity PC
OUT5	Biodiversity PC

No changes were made to these tables following queries received from Ofwat.

All documents and tables referenced above can be found on our website here: [Business Plan 2025-30 - Southern Water](#)