



Natural Capital in our Catchments

Developing natural capital accounts
for all 11 catchments in our area

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Executive summary

Our thanks go to the Natural Capital and Environmental Net Gain team at AECOM for working with us on this report.

We want to protect and improve the environment while we supply our region with essential water and wastewater services. Southern Water has 2.7 million water customers and 4.7 million wastewater customers across 11 surface water management catchments in the South East of England.

Our vision is to create a resilient water future for customers in the South East. In a time of climate and biodiversity crises, recognising and safeguarding our natural environment is essential for building a resilient and prosperous future.

There is increasing regulatory and policy expectation for companies like us to deliver greater environmental and social value. Ofwat is actively working to enhance public value in the water sector. Requirements like mandatory Biodiversity Net Gain¹ to benefit natural habitats, and growing demand for nature-related disclosures, mean that we are having to increasingly account for nature in our business decisions.



With this vision, this report presents key findings from natural capital accounts developed for our operating area, encompassing the 11 catchments we work within. This work was driven by our Ofwat AMP7 (Asset Management Period) performance commitment aimed at establishing accounts for at least three of our 11 catchments by 2024–25². We are now scaling this work up to all 11 catchments.

Gaining this understanding of the state of natural capital and ecosystem services across our 11 catchments provides crucial evidence to help us prioritise actions to improve the environment, ensure sustainable delivery of our water services, and inform our investment and planning decisions.

These accounts represent an important step in developing a strategic level view to inform our business. Regularly updating these accounts will also help track our impact on the environment, as we strive to make improvements and work in partnerships to build, restore, or better manage these environments and boost the services they provide.

Key findings from our accounts:

- **Agriculture is the main use of land across our catchments and it is vital for food and the local economy**, but it can negatively impact water supply and quality. Effective stewardship and collaboration are critical to lessen these risks and safeguard our water sites.
- **Our catchments are critical for public water supply and services and some catchments, such as the Medway, are relied on more than others.** Prioritising action and collaboration in key vulnerable areas is essential for long-term resilience and sustainability.
- **Water quality in our catchments is most influenced by agriculture and the water industry, as well as urban and transport.** While most water sites are in moderate condition, none achieved good status, mostly due to the impact of these sectors. Investing in nature-based solutions, like wetlands, is crucial to helping us improve and better manage water quality.
- **The catchments are essential for public enjoyment and sustaining biodiversity.** Preserving the quality of protected areas, recreational and bathing water sites, and addressing vulnerabilities, particularly in coastal areas, is crucial for maintaining recreational opportunities, building community trust, and providing spaces for the public to enjoy and engage with nature.

¹ UK Government 2024. Biodiversity net gain. Available at: <https://www.gov.uk/government/collections/biodiversity-net-gain>

² Ofwat. 2019. PR19 final determinations. Southern Water – Outcomes performance commitment appendix. Available at: <https://www.ofwat.gov.uk/wp-content/uploads/2019/12/PR19-final-determinations-Southern-Water-%E2%80%93-Outcomes-performance-commitment-appendix.pdf>

1. Introduction to our catchment accounts

Southern Water operates across 11 **surface water management catchments** in the South East of England (Figure 1.1). This report summarises the state of **natural capital** across each catchment, taking 2021 as the baseline year. It is accompanied by headline summaries for each catchment in a separate appendix³.

Previously, we undertook and published natural capital accounts for three of our 11 catchments⁴, driven by our natural capital performance

commitment aimed at establishing accounts for at least three of our 11 catchments by 2024–25. We are proud to have surpassed our commitment by scaling up to all 11 catchments where we operate. We have completed this set of natural capital accounts, as we see its value in providing a baseline for our region to inform our investment planning.

Figure 1.1: Map of the 11 catchments in our operating area



³ [Natural Capital in our Catchments appendix](#)

⁴ Measuring our natural capital: <https://www.southernwater.co.uk/water-for-life/protecting-the-environment/measuring-our-natural-capital>

⁵ Ofwat. 2020. A discussion paper on public value in the water sector. Available at: <https://www.ofwat.gov.uk/wp-content/uploads/2020/12/A-discussion-paper-on-public-value-in-the-water-sector.pdf>

⁶ Further information can be found on our website under: [Our plans 2025–30](#) and in the technical annex of the section [Business Plan 2025-30 documents](#)

⁷ Ofwat. 2020. PR24 and beyond: Future challenges and opportunities for the water sector. Available at: <https://www.ofwat.gov.uk/publication/pr24-and-beyond-future-challenges-and-opportunities-for-the-water-sector/>

⁸ Ofwat. 2021. PR24 and beyond: Creating tomorrow, together. Available at: <https://www.ofwat.gov.uk/publication/pr24-and-beyond-creating-tomorrow-together/>

Key drivers for embedding natural capital

The water sector faces imminent and complex challenges including climate change and biodiversity loss, while needing to meet new requirements from population growth. To tackle these, there has been a notable shift towards values-based decision-making where environmental and social measurements are integral⁵.

At a strategy level, we are guided by our company purpose outlined in our Long-term Delivery Plan⁶ – “to provide water for life to enhance health and wellbeing, protect and improve the environment and sustain the economy”. This is firmly linked to natural capital. Similarly, our five-year business plans outline key priorities including protecting and improving the environment and providing a reliable water supply to our customers. Developing these natural capital accounts can begin to inform the delivery of these plans at a strategic level. There are many activities we already undertake where we impact or depend on natural capital.

We are also driven by external policies and regulations relating to water companies, including Ofwat’s guidance, **WINEP** (the Water Industry National Environment Programme), Price Reviews, and WISER (Water Industry Strategic Environmental Requirements). These describe expectations, provide a strategic steer, and push us to increasingly account for the environment in our business planning.

Ofwat is actively working to enhance public value in the water sector. Their regulatory guidance^{7,8}, as well as forward programmes for 2022-23⁹ and 2023-24¹⁰, encourage us to view business decisions as opportunities to deliver wider benefits. Within Ofwat’s forward programme 2023-24 particularly, increased collaboration and partnerships, and delivering greater value, are key strategic pillars. Ofwat also promotes collaboration to developing consistent natural capital approaches, ensuring we fully consider the environment when making decisions.

As part of their guidance, Ofwat set out key environmental performance commitments – such as protecting biodiversity and improving water quality – to hold water companies accountable and drive us to prioritise social and environmental stewardship¹¹. Water companies, including ourselves, are increasingly recognising the importance of considering wider value, including the benefits of integrating natural capital into decision-making processes.

Adopting natural capital approaches can help us make more sustainable and resilient decisions. Our natural capital accounts are an important starting point for this, as they provide valuable baseline information that we can use to shape our environmental strategies and targets.



⁹ Ofwat. 2022. Forward programme 2022-23. Available at: <https://www.ofwat.gov.uk/publication/pr24-and-beyond-creating-tomorrow-together/>

¹⁰ Ofwat. 2023. Forward programme 2023-24. Available at: <https://www.ofwat.gov.uk/wp-content/uploads/2023/03/Forward-programme-2023-24.pdf>

¹¹ Ofwat. 2023. PR24 Performance commitment definitions. Available at: <https://www.ofwat.gov.uk/regulated-companies/price-review/2024-price-review/framework-and-methodology/final-methodology/pr24-performance-commitment-definitions/>

Measuring natural capital at a catchment level

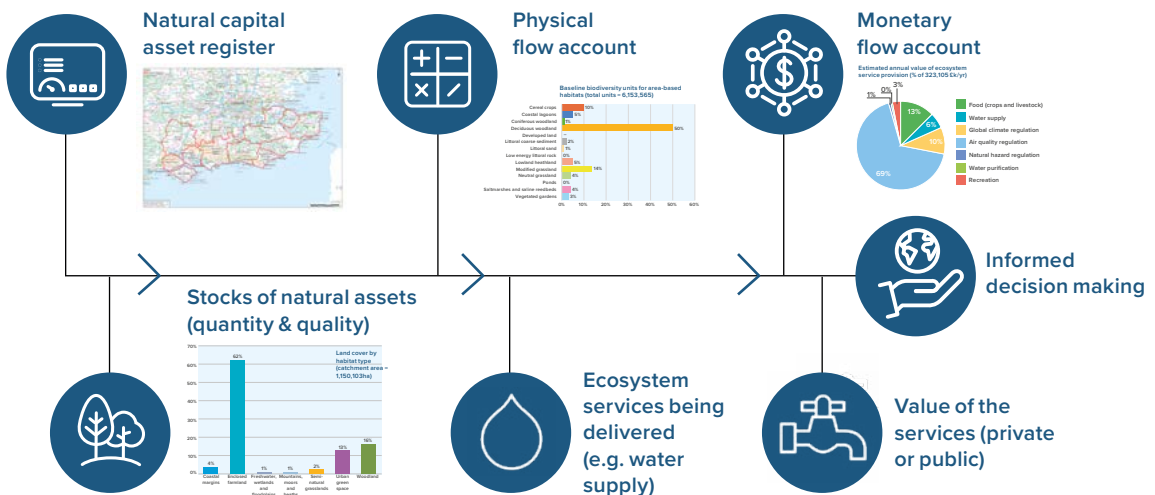
Using a **natural capital accounting framework** (Figure 1.2), we assessed the quality and quantity of natural assets within each catchment, as well as the **physical and monetary flows** of ecosystem services they provide (Box 1.1). This approach aligned with the Environment Agency’s WINEP guidance¹² and involved analysing various measurements relating to our impacts and dependencies on natural capital¹³.

By measuring nature’s contributions in our operating area, we are better equipped to embed nature into our planning and investment decisions. This method provides a structure for presenting and analysing, what are typically very different and siloed environmental datasets. Combined, it gives

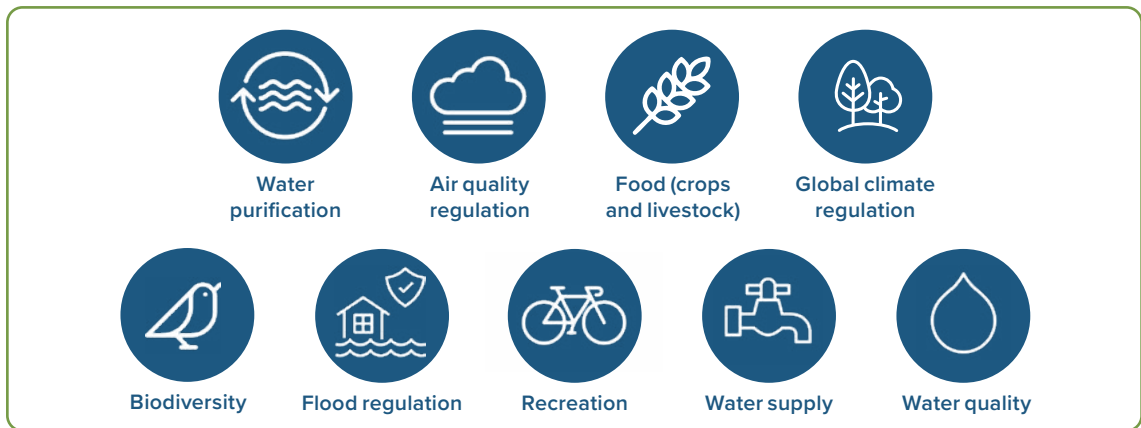
us a better understanding of the opportunities and trade-offs our land use decisions can have regarding the environment. While challenges remain in applying monetary values to nature, this helps bring it into our decision-making processes.

Through repeated and consistent monitoring and reporting – aligned with our strategic programming periods or AMPs (Asset Management Periods) – we aim to track changes in natural capital and monitor risks, as we make improvements and collaborate with stakeholders to enhance and restore our catchments.

Figure 1.2: The natural capital accounting approach



Box 1.1. Ecosystem services we assessed



¹² WINEP methodology. Available at: <https://www.gov.uk/government/publications/developing-the-environmental-resilience-and-flood-risk-actions-for-the-price-review-2024/water-industry-national-environment-programme-winep-methodology>

¹³ The full report 'Natural and social capital catchment accounts – Technical report' (September 2022) as well as the asset register, physical and monetary flow accounts, methodology and data information behind these results, can be requested from Southern Water.

2. Summary of natural capital and ecosystems services in the 11 catchments

We operate across 11 catchments covering about 1.2 million hectares, and the majority of this is agricultural land. Across all catchments, the total annual value of ecosystem services in 2021 was about £3.6 billion. Most of this value can be attributed to the Medway catchment (19%), and the least to the Isle of Wight catchment (3%), largely reflecting the total size or area of a catchment.

Nearly 90% of the ecosystem service value across our operating area is attributed to those aspects that deliver benefits to society ('**societal value**'), as opposed to private organisations ('**private value**'). The largest monetary value was linked to air quality, accounting for about £2.3 billion or 67% of the total value. This was followed by food (crops and livestock) and global climate regulation (carbon sequestration) services.

Many important services are delivered to our company and wider society by habitats in our operating area. Here are some additional key findings:

- **Carbon sequestration:** habitats stored about 1.4 million tonnes of carbon dioxide annually – equivalent to removing about 300,000 cars off the road for a year. Woodlands contributed the most to this, at about 90%.
- **Biodiversity:** habitats provided about 6.3 million **biodiversity units** (Box 1.2), estimating the biodiversity value of habitats within an area. About half of these units were delivered by broadleaved woodlands.
- **Flood regulation:** woodlands are crucial for regulating floods, storing about 49 million cubic metres (m³) of water a year. This is equivalent to nearly 20,000 Olympic-sized swimming pools. In the Adur and Ouse catchment alone, woodlands stored about 4.4 million m³.
- **Freshwaters:** Nearly 5,800 km of freshwater rivers, estuaries and canals span across our catchments.

Our findings provide an indication of why investing in nature-based solutions can make such good business sense. Typically, these solutions also provide a multitude of wider benefits. For example, delivering improvements to natural flood management can enhance biodiversity and improve water quality.



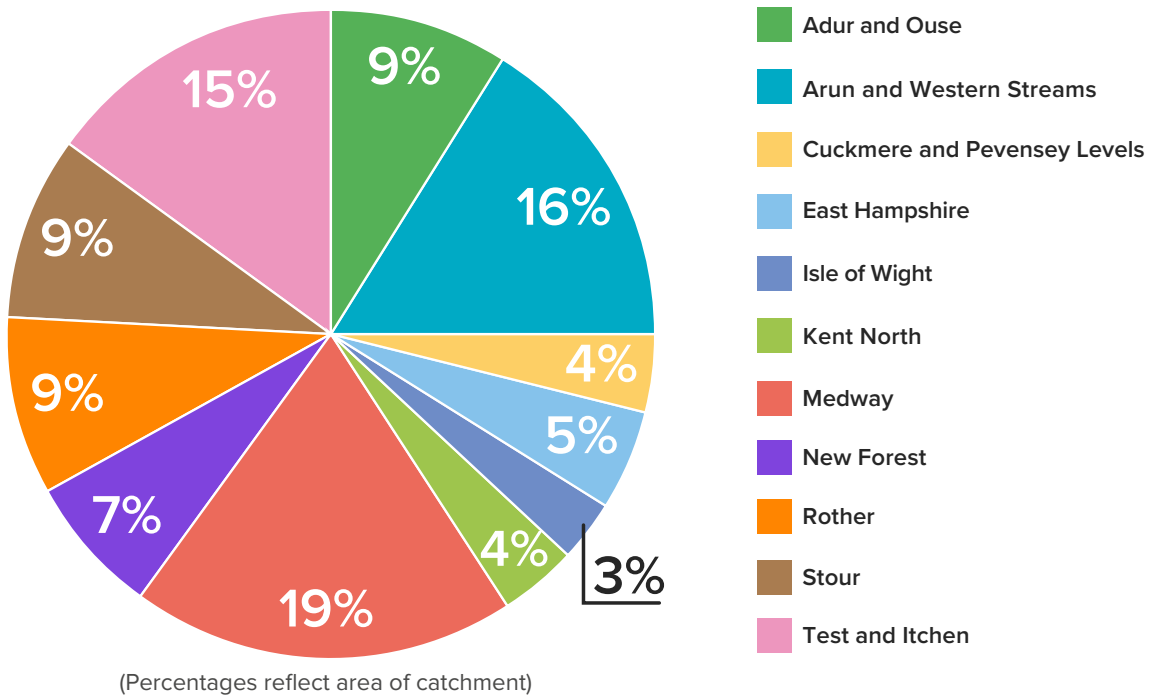
Box 1.2.

How did we measure biodiversity?

We measured biodiversity in terms of 'units' delivered by habitats using Natural England's Biodiversity Metric 3.1. While there is an updated statutory version 4.0, the principles remain the same. The Metric provides a quantified estimate of biodiversity units based on area, condition, uniqueness, and ecological importance of habitats. This aligns with government policies requiring net biodiversity gain in planning decisions. Ofwat also set biodiversity performance commitments, holding us accountable for biodiversity impacts, which are also based on Natural England's Biodiversity Metric.

Operational area - summary

Total area	1,150,103ha
Area owned by Southern Water (freehold)	2,353ha
Carbon sequestered by habitats	1434,445 tCO ₂ e/yr
Total visit numbers	12,036,550 visits
Total volume of public water supplied	223,359,587m ³ /yr
Total number of biodiversity units	6,153,565

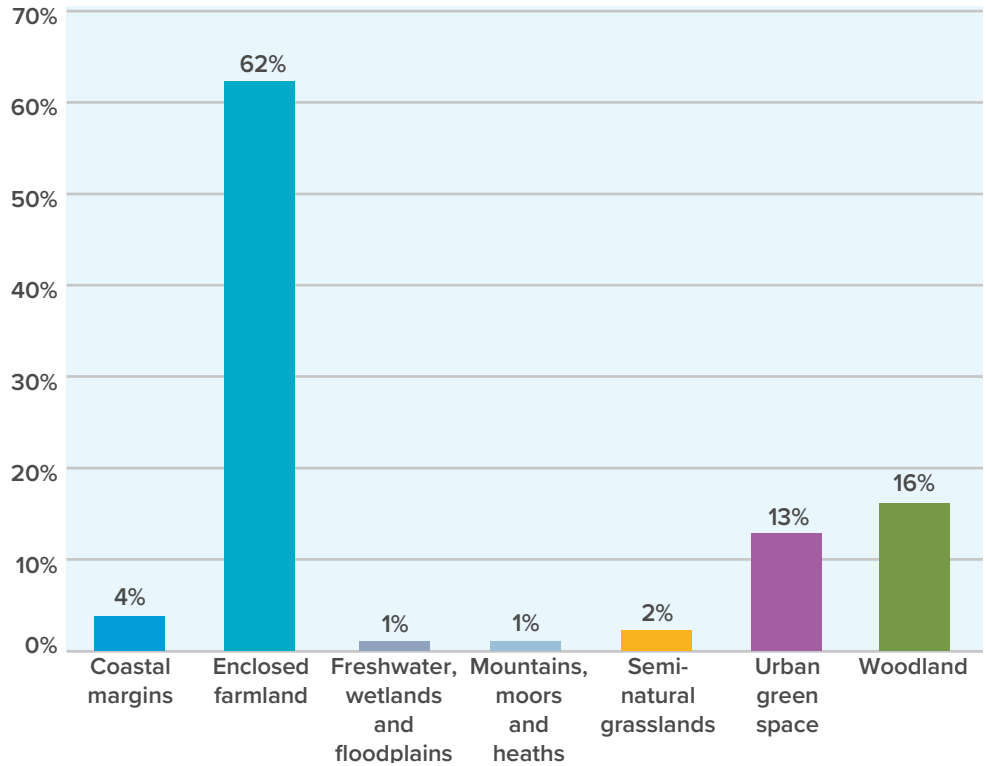


Total monetary flows of ecosystem services (2021)*

Ecosystem service	Value type	Monetary flows (£k/year)
Food (crops and livestock)	Private	399,760
Water supply	Societal	191,420
Global climate regulation	Societal	351,440
Air quality regulation	Societal	2,361,300
Flood regulation	Societal	145,640
Water purification	Societal	89,530
Recreation	Societal	51,200
Total private value		399,760
Total societal value		3,190,520
Grand total		3,590,280

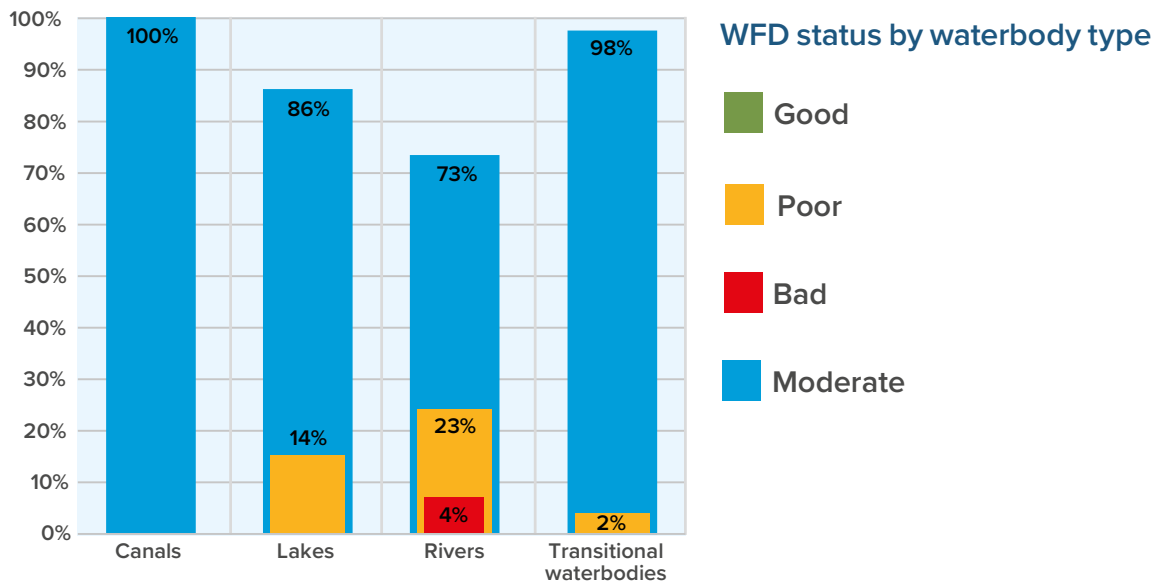
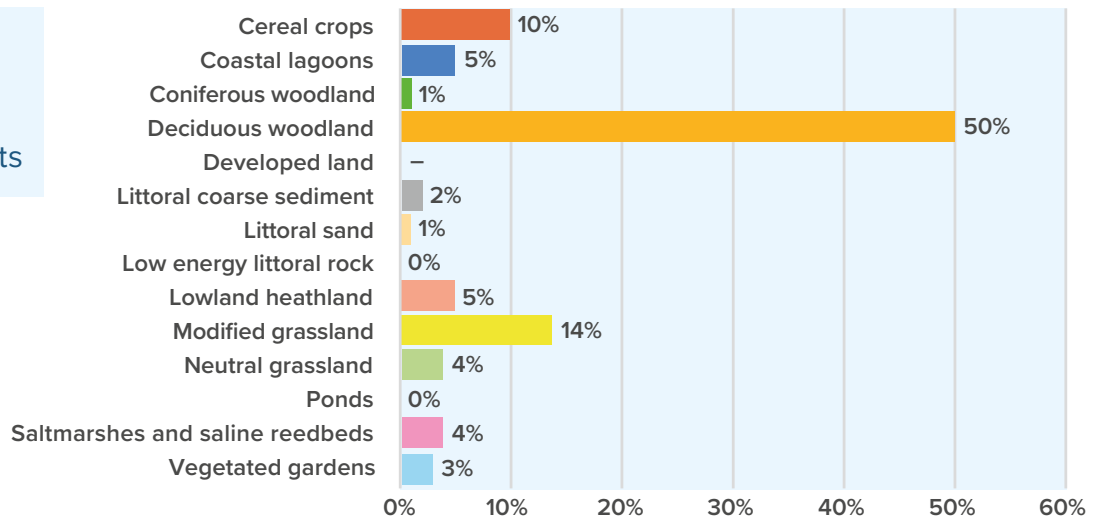
*Rounded to the nearest 10

Land cover by habitat type (catchment area = 1,150,103ha)



Baseline biodiversity units for area-based habitats (total units = 6,153,565)

Note:
 0% signifies less than zero
 – signifies no units



Agriculture: sustainable farming is key to addressing water quality risks

Agricultural land covers about 60% of our operational area and serves as the foundation of food supply within our catchments. We estimated that about 21 million tonnes of crops were produced in 2021, with associated benefits totalling about £244 million. Livestock rearing, another vital service provided by agricultural land, generated about £155 million in benefits.

Despite offering these market benefits, the dominance of agriculture poses risks to our water quality. Instances of water sites not achieving good condition status was most often linked to the agricultural sector. In addition, all our catchments include water sites within **Nitrate Vulnerable Zones**. These are areas at risk of nitrate pollution from agricultural run-off and leakage.

The indicators highlight areas vulnerable to pollution from agriculture. Excessive agricultural run-off, such as from the release of waste from livestock, poses risks to water quality and biodiversity. It can contribute to water pollution in our catchments and have a direct impact on our ability to treat and provide potable drinking water to our customers.

Effective land stewardship is essential for maintaining good water quality, emphasising the importance for us to engage with landowners and farmers. This can help improve and restore biodiversity alongside reducing water treatment costs. Identifying areas vulnerable to water pollution can inform our targeted actions and collaborations for safeguarding water quality.

Through partnerships in catchment management and adopting sustainable agricultural practices, especially in catchments with vulnerable water sites, we can collectively lessen the impact of agricultural water pollution (Box 1.3).



Box 1.3

Case Study: Stour – Sampling cover crops to reduce nitrogen use

In Thanet in the Stour catchment, we are implementing a scheme to reduce nitrogen leaching to groundwater. We are supporting local farmers together with the Farming and Wildlife Advisory Group (FWAG). In the first stages, FWAG have been taking biomass samples from 22 farms growing overwinter cover crops to see

how much nitrogen has been captured. We are following this up with soil testing on 50 fields in the catchment. The results will help farmers make accurate fertiliser decisions over the next growing season to help protect our drinking water supplies.

Water quality: industry impact and nature-based solutions

Not only does the agricultural sector impact our water quality, but as a water company we are also responsible for good water stewardship.

We assessed the condition of water sites using their status under the **Water Framework Directive**. Most water sites within our catchments were in moderate condition. However, none achieved good status, with 4% of our rivers classified in bad condition, particularly in the Stour, Adur and Ouse, and East Hampshire catchments.

To understand why, we examined the sectors responsible. Across our catchments, most instances of failure – classifications of ‘less than good’ – were attributed to the water industry (17%) and agricultural sector (29%). While the urban and transport sector only made up about 1% of total instances across our operational area, in some catchments it was a dominant reason for failure. This was the case for the Isle of Wight, East Hampshire, and Test and Itchen catchments.

The Rother and Adur and Ouse catchments had the most instances of failure, accounting for about 15% each of the total 2,567 instances. However, failures associated with the water industry were most common in the Adur and Ouse and Medway catchments.

Understanding the water sector’s impact on water quality, and the most impacted catchments, provides helpful data to monitor and target water quality management in future reporting cycles.

Investing in innovative nature-based solutions can help address water quality issues. For example, the creation of wetlands can enhance the natural purification of water sites. Across our catchments, coastal wetlands were estimated to provide nearly £90 million in water purification benefits annually, with those in the Kent North catchment contributing the most at about 16% of the £90 million.

The role of coastal wetlands in water purification emphasises the importance of protecting and expanding these habitats. It serves as crucial evidence supporting the rationale for investing in the restoration and creation of wetlands (Box 1.4). This investment is both important for enhancing water quality and provides priority habitats for wildlife, such as in the South Swale Ramsar site in the Kent North catchment.



Box 1.4:

Creating wetland habitats and partnership working in the Rother catchment

As part of our Environment Improvement Programme, investing in natural processes for water resilience, we are developing a series of collaborative projects in the Western Rother catchment.

Projects include creating wetland habitats, improving public access and recreation, and partnering with the Wildlife Trust and landowners to restore and enhance river ecosystem services. Our efforts include wildlife surveys and various workshops to develop a long-term plan.

We are also working on the Ofwat Innovation project ‘Catchment Systems Thinking’, where we are planning a series of collaborative workshops to develop a citizen science approach to water quality monitoring that we will be implementing as part of a demo project in 2024.

Securing sustainable water supply

Southern Water takes surface water and groundwater for public water supply from 10 of the 11 catchments. This includes serving our customers as well as those of other water companies operating in the catchments.

In 2021, about 416 million m³ of water was taken for public water supply. Most water supplied was sourced from sites in the Medway (41%) and Test and Itchen (32%) catchments.

These findings help us understand which catchments face the most pressure as sources for public water supply. Identifying areas of high demand and potential vulnerabilities enables us to allocate resources more effectively and prioritise action.

With the climate crisis increasing the frequency and severity of drought¹⁵, safeguarding our water sources and understanding which areas are

under pressure is vital to ensuring a sustainable supply for all customers. We also need to leave enough water in the environment for nature and biodiversity to thrive. Through our Water Resource WINEP investigations, in collaboration with our regulators the Environment Agency and Natural England, we collect important water and ecological data to understand potential links between our abstractions and ecosystems. Alongside the findings from our catchment accounts, this can help us identify, plan and lessen risks to the resilience and stability of ecosystems, that we depend on for our water supply (Box 1.5).

Collaborative efforts and joint management plans in areas most at risk, can help us optimise water use, particularly in areas supporting large volumes of public water supply such as the Test and Itchen and Medway catchments.

Box 1.5

Case Study: Isle of Wight – Chalk Stream Enhancement Scheme

We depend on healthy water environments for public water supply, including chalk stream and wetland habitats. Simultaneously, it is important we get the right balance of leaving enough water in the environment for nature and biodiversity to thrive.

Increasing the amount of water to the environment alone does not fully address the challenges that chalk stream and wetland habitats face. Many are subject to additional pressures such as historical modification for fishing, urban development, and land management.

In addition to reducing abstraction, we carry out river and wetland environmental improvements to increase the biodiversity and resilience of watercourses and wetlands, to maximise overall benefits.

After conducting a detailed investigation in the Lukely Brook on the Isle of Wight from 2015 to 2020, we put in place five river enhancement schemes from 2022 to 2023. These schemes, carried out with the Newport Rivers Group, riparian landowners – people with a watercourse on or next to their property – and the Environment Agency, include a stage zero scheme throughout the catchment area. This scheme aims to improve the diversity and quality of the chalk stream and adjacent floodplain meadows, pictured below.



Connecting with nature

Our catchments serve as important environmental settings, supporting and protecting key habitats and species, facilitating recreational activities, such as walking, swimming and water sports, and providing a space for us to connect with nature.

In 2021, our catchments welcomed an estimated 12 million recreational visits, valued at approximately £51 million. The East Hampshire and New Forest catchments were found to be particularly popular destinations.

Another key source of recreational enjoyment in our catchments are designated bathing water sites. With a total of 83 sites across our catchments, the Stour and Isle of Wight catchments host the highest numbers, with 20 and 14 sites respectively.

Maintaining the quality of these natural spaces for our communities is vital. Most of our designated bathing water sites were found to have excellent or good status, but some have only sufficient or poor status. We want to see all these sites

improve towards excellent as we recognise our role in preserving water quality and ensuring these sites are safe for the public. Including these measurements in our natural capital accounts will be crucial as we monitor and actively manage changes over time.

While only about 4% of our operational area is covered by **Marine Conservation Zones** and **Shellfish Protected Areas**, these support biodiversity and recreational opportunities as well. They may also include habitats such as seagrasses which are significant stores of carbon, and important food sources such as diverse shellfish.

Coastal areas, however, can be vulnerable to our activities like sewage discharge and the use of **combined sewer overflows**. Addressing these impacts is critical to maintaining the excellent or good status of coastal bathing waters, for instance in the Isle of Wight and Stour catchments, and to upgrade from sufficient status in others, such as Rother and Cuckmere and Pevensy Levels. Given the public benefit these sites provide, identifying measurements to better understand the condition of these valuable public spaces provides an opportunity for us to enhance and improve them.



3. What is the state of nature in our catchments?

We aimed to better understand the state of nature in our operating area using a natural capital accounting approach. Our findings reveal that:

- Agricultural land dominates our catchments and is vital for food supply, but it can negatively impact water quality. Effective stewardship and collaboration are critical to lessen these risks and safeguard our water sites.
- Water quality in our catchments is mostly influenced by the agricultural sector, water industry, and urban and transport sectors. Investing in nature-based solutions, like wetlands, can help deliver biodiversity and environmental benefits alongside business benefits, such as reducing water treatment costs.
- Our catchments are critical for public water supply services, and some catchments are more vulnerable than others. Our findings can help us prioritise action and collaboration in these areas to help ensure reliable, long-term water supply.
- The catchments are essential for public enjoyment and sustaining biodiversity, including important environmental designations, and bathing sites. Preserving and improving the quality of these sites is crucial for maintaining recreational opportunities and increases trust with our communities.

What does this mean for Southern Water, our stakeholders and the environment?

We recognise our responsibility as critical land stewards – whether land is owned directly or when working with others – and acknowledge we can do more to leave a positive impact and protect and enhance our environment. Establishing these baseline natural capital accounts is an important foundation to build on.

We now have a framework to monitor the state of the natural environment in our catchments,

our impact on the environment, and importantly, demonstrate the vital role nature plays for us as a company and our customers. These foundations provide evidence to:

- make a better case for nature in our decision making
- prioritise investment in interventions and nature-based solutions that can deliver multiple benefits, such as improving biodiversity and flood resilience
- identify key areas and stakeholders where partnership working is required
- set clear objectives and measure progress as we continue to improve management of nature across our catchments.

While these accounts provide an important strategic overview, helping to identify areas for investment and intervention, they lack detail on a small scale. In addition, the accounts are mainly based on publicly available data and the findings can only reveal as much as the chosen measurements show us. We need to apply the natural capital approach for specific investments to make the case for nature on a project-by-project basis, as well as to continue to update the data in future iterations.



4. What's next?

We now have a completed set of baseline natural capital accounts for our region that we can use for tracking progress over time.

Our accounts highlight which sectors – including our own – contribute to water quality failures, demonstrating where collaborative efforts may be required. Taking this more holistic approach to working in partnership to address these failures can drive meaningful change ensuring the long-term sustainability of our environment.

We also recognise the importance of our stakeholder relationships and building trust with our communities, as well as the interdependencies between our activities and the wellbeing of the communities we serve. While our focus has been on natural capital, we are exploring social capital approaches to quantify and monitor changes.

We will continue to integrate this work on natural capital across the company, aiming to make it common language and a cornerstone in the work we do, by setting business-wide objectives, carrying out relevant training and education, and demonstrating the value nature plays in helping us provide clean water to our customers.

We are already revisiting and refreshing our natural capital roadmap to continue to embed this thinking in our business. In addition, we aim to revisit and repeat these accounts as part of the Asset Management Period 8 (2025-30).

As the regulatory landscape evolves, including the recent introduction of mandatory Biodiversity Net Gain, we recognise our responsibility to protect and enhance natural capital through our land management and wider strategies. We are actively developing a biodiversity strategy and expect that tools like these catchment-based natural capital accounts will help us to respond to the growing demand for nature-related disclosures and developing nature markets.

Looking ahead, we will continue to embed natural capital into our day-to-day decision-making processes and Environmental, Social, and Governance practices. These efforts inform our approach to land management, stakeholder engagement, as well as corporate reporting, providing baseline evidence ahead of the next strategic programming period (AMP 8).

Through our ongoing journey of embedding natural capital into our business operations, we can contribute to the long-term sustainability of our ecosystems and communities and ensure sustainable water services for future generations.



Glossary

Term	Definition
Air quality regulation	Ability of habitats to remove pollutants from the air, and therefore reducing impacts on human health.
Biodiversity	The variety of living species – an important natural capital asset and supporting ecosystem service, because nature would not be able to function without it.
Biodiversity unit	A biodiversity unit represents the biodiversity value of habitats within an area, calculated with Natural England's Biodiversity Metric. The calculation is based on the distinctiveness (i.e. type of habitat and rarity protective status), condition, extent, and strategic significance (i.e. areas with a special designation and/or with key ecological functional roles) of habitats.
Broadleaved woodland	Woodland areas which contain over 80% broadleaved species. Broadleaved trees, like oaks and beeches, are those which do not have needles (known as coniferous trees).
Carbon sequestration	Ability of habitats to absorb carbon dioxide from the atmosphere and contribute to global climate regulation.
Combined Sewer Overflows (CSO) or storm overflows	A combined sewer system collects rainwater, household sewage, and other wastewater into one pipe. Storm overflows act as safety valve when these systems get overwhelmed, usually because of too much water during heavy rain, and overflow into nearby water sites. They are used to prevent homes, businesses, and roads from flooding.
Ecosystem services	Benefits that people obtain from ecosystems. These can be cultural services such as recreation, provisioning services such as food and water, regulating services such as climate regulation, and supporting services such as biodiversity.
Flood regulation	Ability of habitats like wetlands and woodlands to protect humans from flooding. For example, vegetation in woodlands can slow down the flow of water and store water from rain to reduce flood risk.
Food (crops and livestock)	Ability of habitats to supply food for human consumption.
Global climate regulation	The ecosystem processes by which atmospheric functions are regulated. It is often measured through carbon sequestration.
Marine Conservation Zone	Designated areas to protect nationally important marine wildlife, habitats and geology.
Monetary flow account	Presents the annual monetary value of the physical flows of ecosystem services.
Natural capital accounting	A standard and best-practice approach to record information on natural capital and its services. For our analysis, we followed the Capital's Coalition Natural Capital Protocol.

Term	Definition
Natural capital assets	Stock of environmental resources, such as air, minerals, soils, and land which support the provision of ecosystem services.
Nature-based solutions	Methods to address environmental challenges by using natural processes as opposed to human intervention.
Nitrate Vulnerable Zones (NVZs)	Areas designated as being at risk from agricultural nitrate pollution.
Operating area	The region where we work, encompassing 11 surface water management catchments.
Physical flow account	Presents the annual quantitative flows of ecosystem services delivered from the natural capital assets.
Private value	Value gained to the organisation owning or directly managing the land. This mainly relates to the value of crop and livestock production which is gained by private landowners.
Recreation	The active enjoyment of the natural environment by humans through, for example, walking, fishing, and canoeing.
Shellfish Protected Area	Designated areas to protect or develop economically important shellfish production.
Societal value	Value external to private organisations and accrued to society.
Surface water management catchment	A geographic area defined naturally by surface water hydrology and for which action plans are drafted in implementing the Water Framework Directive.
Water Framework Directive (WFD)	Sets out rules to halt deterioration in the status of water bodies in the UK. It aims to improve the quality of water and ensure waterbodies achieve good quality status.
Water Industry National Environment Programme (WINEP)	Sets out the programme of work for water companies in England to improve the environment. WINEP was developed by the Environment Agency.
Water purification by habitats	Ability of habitats and ecosystems to remove and filter pollutants and contamination from water sites (for example, wetlands).
Water quality	Characteristics of water which give it the ability to provide its beneficial uses (e.g. swimming, drinking). It is measured using waterbody status under the Water Framework Directive.
Water supply	Water provided for public use (e.g. for drinking and bathing).



Find further information at [southernwater.co.uk](https://www.southernwater.co.uk)

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