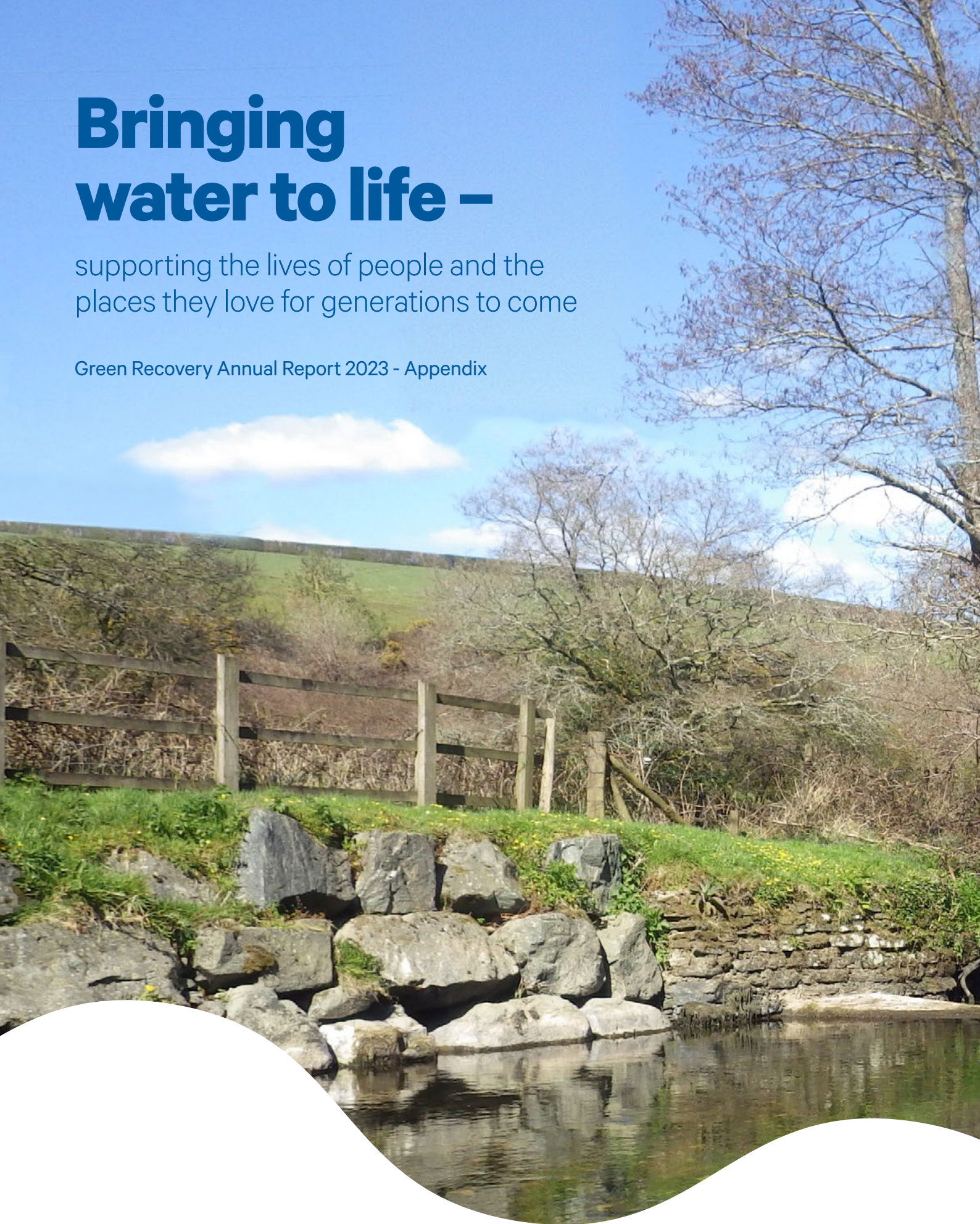


Bringing water to life –

supporting the lives of people and the
places they love for generations to come

Green Recovery Annual Report 2023 - Appendix



Executive Summary

Delivering on improving public health, protecting the environment and addressing climate change



South West Water's Green Recovery Initiative, which was developed with and supported by our customers focuses on opportunities to make an even bigger environmental and societal contribution to the South West over and above our stretching 2020-25 business plan.

Driven by our values



Trusted

We do the right thing for our customers and stakeholders



Responsible

We keep our promises to our customers, communities and each other



Collaborative

We forge strong relationships, working together to make a positive impact



Progressive

We are always looking for new ways to improve and make life better

This is the second year of our Green Recovery programme and has seen a continued increase in activity in respect of each of the five core schemes. As a responsible regional business, we committed to the programme following the impacts of the COVID-19 pandemic upon the economy of the South West of England, which was particularly hard hit.

Our plan, which was approved by the Regulator, Ofwat, in July 2021 commits to an investment of c.£82m to deliver five schemes:

- 1 Knapp Mill water treatment works advancement** accelerating the upgrade of the Knapp Mill water treatment works near Christchurch
- 2 Water resource grid enhancement** increasing water supply resilience by supporting water transfers
- 3 Smarter, healthier homes** trialling ways to help customers save water, protect customers from the cost of supply pipe failures, and reducing health risks from lead pipes
- 4 Storm overflows** reducing harm from storm overflows and improving river water quality
- 5 Catchment management** using nature-based solutions to improve water quality and enhance natural habitats.

With most of the programme implemented from 2022 to the end of the regulatory reporting period in 2025, the second year has included a significant pick up in activity, with further land incorporated into intensive peatland and catchment management schemes, a further roll-out of smart metering and the commencement of multiple storm overflow assessment framework (SOAF) investigations.

Our performance in respect of our Green Recovery Initiative commitments has been subject to assurance, including 3rd party technical audits from Jacobs, our external technical assurer. We will be obtaining further independent assessment and providing assurance as required in Ofwat's Green Recovery Final Decision document of progress as part of the PR24 process.

Certain early milestones for projects have been delayed, we have revised plans to ensure these do not impact the overall programme delivery.

In May 2022 we submitted of our detailed plans to Bournemouth, Christchurch and Poole Council for the advancement of the upgrade to our Knapp Mill water treatment works. We await a planning approval for this scheme, and while on track with our preparatory planning, design and advanced works, this is a risk to the timeline if it remains a protracted process.

The initiative is creating jobs and continues to support the wider supply chain and help the region's economy recover in addition to protecting the environment.

Summary Performance

Delivering alongside our main business plan

On track for all initiatives

In 2022/23 SWW achieved c.70% of its business plan performance commitments as described in our Annual Performance Report.

Alongside this momentum in our Green Recovery has picked up and we remain on track to deliver the committed benefits by 2025 (and where relevant 2026).

For certain aspects of our programme start-up issues have resulted in a slower than forecast start to some of our initiatives, and this has had an impact on benefits achieved in the first two years of the programme.

We have worked to reprofile the programme to ensure each initiative delivers the benefits by the scheduled completion date.

1 Knapp Mill water treatment works advancement

The project will upgrade the existing Knapp Mill Water Treatment Works domestic supply with a new innovative treatment process. This will provide a world class drinking water supply solution for the supply network serving Bournemouth Water customers, providing excellent water quality and long-term water supply security for the region.

2 Water resource grid enhancement

Following completion of the outline design and development stage a contractor has been appointed to deliver detailed design and construction of the Prewley to Northcombe transfer mains.

For the Roadford pumped storage scheme, we are working towards the full planning application having completed as an engineering exercise optimising the size of the scheme.

3 Smarter, healthier homes

Our smart meter installation programme has continued in the year, and although to date we are behind the initial planned rollout, this following initial start-up issues, and we have reprofiled to ensure delivery by 2025.

4 Storm overflows

We have completed 33 of the 100 SOAF investigations by the end of the programme.

In respect of the Dart and Tavy River Bathing Waters Pilot, we are working collaboratively with local stakeholders and community groups which are planning to apply for inland bathing water status. We have commissioned detailed investigations to assess where and when our assets may influence water quality around these locations.

5 Catchment management

To date, we have successfully delivered our target for areas under catchment management across the our three workstreams, against a target of 3,000 ha. Thanks to the success of Green Recovery and our Upstream Thinking programme, we have again met the combined performance commitment for new land under active management and look forward to another successful year ahead.

Forecast and delivered performance commitment benefits from Green Recovery Programme

PERFORMANCE COMMITMENT	UNIT	2022/23 ACTUAL	2022/23 FORECAST
Biodiversity – enhancement*	Hectares	3,414	3,000
Installation of AMR meters	Number	930	15,191
Leakage*	MI/d	0.02	0.31
Per capita consumption	l/p/d	0.01	0.09
Operational carbon	Tonnes	NA: 2024/25 commitment only	

* The benefits for these Green Recovery commitments are also included within the performance shown within our overarching annual commitment, whereas AMR meters installed and pcc impacts are excluded in the overarching commitment – see pages 165 of the APR

Targets met/on track

- 1 Knapp Mill water treatment works advancement
- 2 Water resource grid enhancement
- 3 Smarter, healthier homes
- 4 Storm overflows
- 5 Catchment management

Performance Key

- ✔ Area of excellence
- ✓ Outperformance
- On track
- ✗ Marginal underperformance
- ✗ Area of focus

This key is used throughout the report.



Green Recovery initiative

1 Knapp Mill water treatment works advancement

Agreed proposal

The objective of this project was to upgrade the existing Knapp Mill Water Treatment works with a new state of the art works with a Nominal Demand figure of 86 MI/d.

Amended proposal

The objective of the Knapp Mill WTW project has been amended to now provide a new treatment process to safeguard water quality and meet the requirements of a DWI notice. The scope of the project is to install new ceramic membranes and Granular Active Carbon (GAC) filters after the existing slow sand filter process. The innovative ceramic membrane process will provide an absolute barrier to particles and pathogens present in the River Avon. The solution has recently been revised to maintain more existing assets and reduce the amount of new construction required, providing a more sustainable solution. The new design option reduces the need for chemical dosing and the requirement for much smaller amounts of GAC media replacement in the future. All of which has a dramatic effect on reducing our Carbon Footprint and whole life cost of how we treat our water at Knapp Mill WTW.

As this is a water non-infra, quality driven project, benefit will only be achieved once water is fully into supply from the new process (currently estimated as Mar-2026). There are no incremental benefits which can be reported against.

Progress

The project is currently at outline design phase with ongoing pilot trials with our supplier PWNT as the selected technology to optimise the solution and finalise design parameters.

The Planning Application for the project was submitted in May 2022 and has been subject to ongoing challenge from Natural England.

Whilst the planning permission remains outstanding, progress has been made on the design scope.

Subject to planning permission being obtained, the project is currently on track for completion by March 2026 (Ofwat ODI date and DWI Notice completion date), however the project milestones will be re-assessed once planning permission has been granted, and there is a risk to the delivery timeline, if this continues to be a protracted process.



Submitted

Planning design



86 MI/d

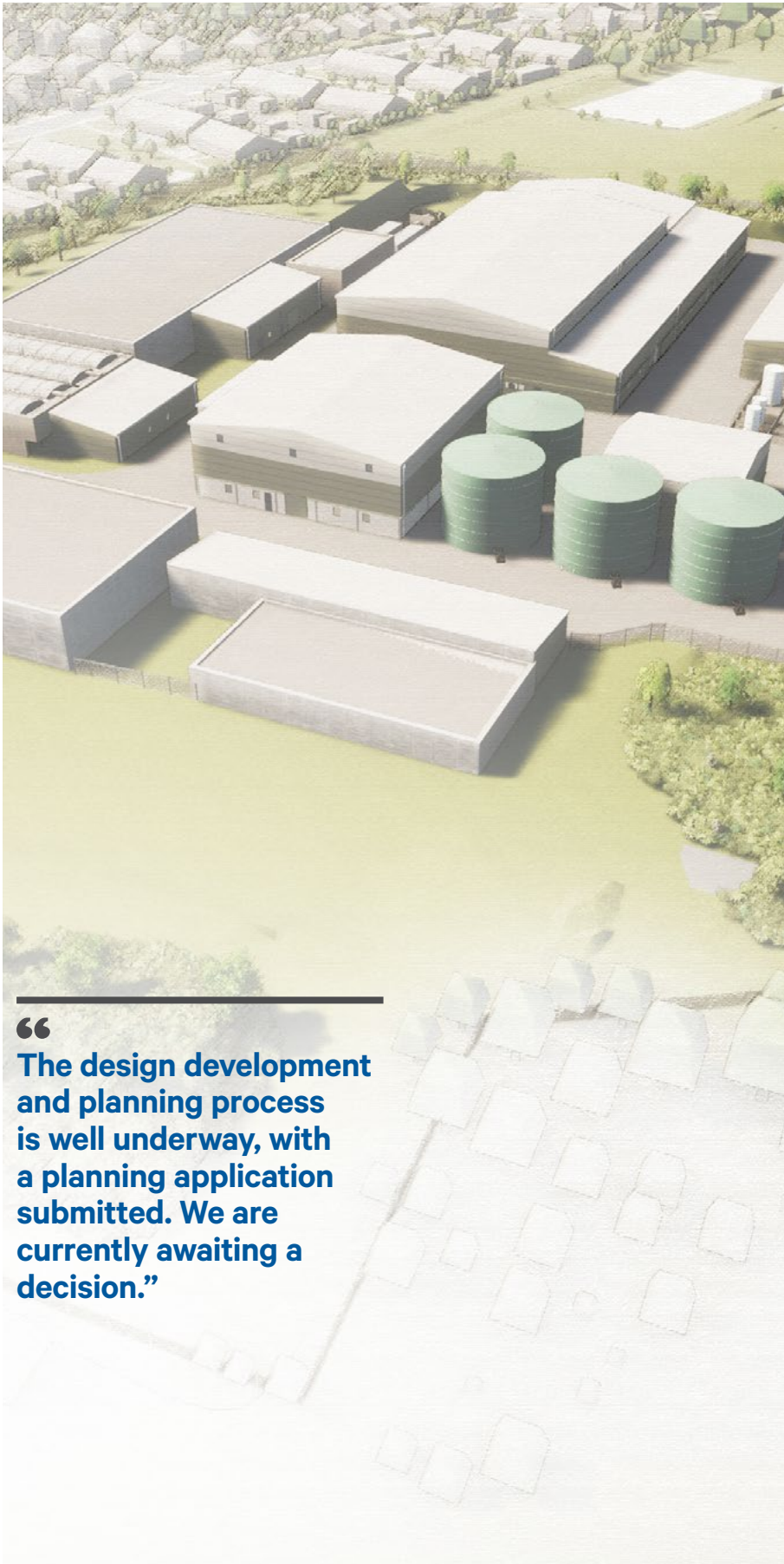
Nominal demand figure



On track

For March 2026 operational start

ACTIVITY	DWI MILESTONE	DATE	CUMULATIVE SPEND (£M)
Planning Approval		Pending	2.8
Complete Outline Design		26/09/2023	Under review
Complete enabling works activities		10/05/2024	Under review
Start on site (main construction)		10/05/2024	Under review
Complete sufficient detailed design to enable construction to proceed	○	31/04/2025	Under review
Complete the planning, procurement, construction and installation of new treatment solution to enable wet commissioning	○	09/10/2025	Under review
Commission the new / replacement treatment solution into supply via a controlled blending scheme	○	09/10/2025 to 10/03/2026	Under review
Provide all treated water from Knapp Mill via the new treatment solution	○	31/03/2026	Under review



“
The design development and planning process is well underway, with a planning application submitted. We are currently awaiting a decision.”

Future programme

- ▼ **Outline design & ECI period**
25 May 2023

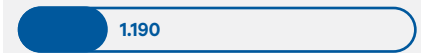
- ▼ **Enabling and long lead item procurement**
10 January 2024

- ▼ **Construction period & Commissioning**
11 May 2024

- **Provide all treated water from Knapp Mill via the new solution**
31 March 2026

Spend £m

2021/22



2022/23



Green Recovery initiative continued

2 Water resource grid enablement

Agreed proposal

Our proposal accelerates plans to address supply risks affecting our Roadford supply area and advances our long-term water quality strategy for the North Devon area.

The investment includes:

- A new intake pumping station – on the River Tamar to transfer raw water to Roadford reservoir
- New raw and treated water transfers – between Prewley and Northcombe water treatment works (WTWs) providing a new strategic link between two key sources in the area.

The proposals will help address the growing pressure on both water resource availability and quality and support the transfer of water to areas in supply deficit across Southern England.

Progress

Prewley to Northcombe Transfer Mains scheme

The project has moved through the outline design phase with site investigation informing design development. The proposed design solution is now well defined and project risk has been reduced following the conclusion of ground investigation, ecological and archaeological surveys. Site survey and investigation has informed a detailed pipeline route development exercise to ensure a best value solution with minimum permanent impact on the environment.

A negative EIA (Environmental Impact Assessment) screening opinion was received from West Devon Borough Council and Dartmoor National Park, confirming our permitted development rights to install the new pipelines.

A value engineering exercise has identified the repurposing of existing infrastructure or provision of temporary infrastructure to be preferable to the installation of the originally scoped raw water tanks at Prewley and Northcombe WTW. The scope of the scheme is now focused on the installation of the twin cross country pipelines, both have been optimised to be 500mm internal diameter ductile iron.

Following the conclusion of a competitive procurement exercise, a single contractor has been engaged to deliver the detailed design and construction of this project. The main contractor has mobilised to site following early works activities removing vegetation to secure the new pipeline route and pipe installation activities are ongoing.

Roadford Pumped Storage scheme

The project has moved through the outline design phase with site investigation informing design development. The proposed design solution is now well defined and project risk has been reduced following the conclusion of ground investigation, ecological and archaeological surveys in addition to extensive habitat and flow surveys of the river Tamar to inform the abstraction licence.

A value engineering exercise has been completed whereby the size of the new raw water transfer has been optimised based on the capability of existing infrastructure and hydrological assessment of the catchment.

The new Gatherley abstraction on the River Tamar will now be sized to transfer 111 Ml/d. Subject to dualling of the existing 7.5km 900mm dia Lyd to Roadford under a future scheme, this will then enable 148 Ml/d transfer to Roadford Lake using the existing Lyd and proposed Gatherley abstraction sites.

Following the conclusion of a competitive procurement exercise, a single contractor has been selected to deliver the detailed design and construction of this project.

We are formally requesting an EIA (Environmental Impact Assessment) screening opinion from the local planning authority to confirm our permitted development rights to install the new pipeline – a decision is expected in August 2023.

We are concluding a Town & Country Planning pre-application phase with the local planning authority to inform the detailed design of the new intake pumping station site. A full planning application is planned for later this year.

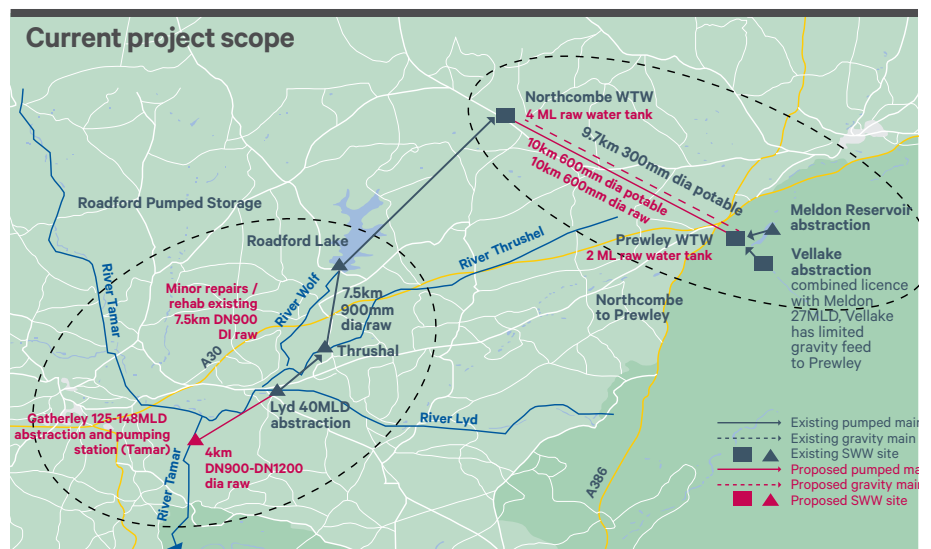


Following a pre-application phase with the Environment Agency for the new River Tamar abstraction licence, an abstraction licence application is planned to be submitted for determination this calendar year. The new licence is anticipated to be aggregate with an existing downstream 148 Ml/d licence on the River Tamar, meaning no overall increase to what we're currently able to abstract.

Land purchase of the new intake pumping station site is advanced and nearing completion to coincide with the planning application.

A new power supply quote from National Grid has been accepted and National Grid planning for the power infrastructure reinforcement works is underway.

Site investigation of the Lyd to Roadford main has been completed, including initial pressure testing and commissioning. Further testing is planned this year to provide more information about its suitability for use as part of the new Gatherley to Roadford transfer.



27 MI/d
Raw water transfer capacity from Prewley to Northcombe WTW

27 MI/d
Treated water transfer capacity from Northcombe WTW to Prewley WTW

111 MI/d
Capacity infrastructure to recharge Roadford Lake from River Tamar



Future programme

Northcombe – Prewley

- ▼ **Main contract award**
31 May 2023
- ▼ **Start on site (main construction)**
1 July 2023
- ▼ **Construction complete/Commissioning**
31 December 2024
- ▼ **Install a new raw water main connecting Meldon Reservoir with Northcombe works (DWI SWB-2021-00009 Prewley WTW)**
31 March 2025
- ▼ **Install a new treated water main from Northcombe works to Prewley works (DWI SWB-2021-00009 Prewley WTW)**
31 March 2025
- **Commitment to complete under Green Recovery**
31 March 2026

Future programme

Roadford Pump Storage

- ▼ **Main Contract awarded**
30 June 2023
- ▼ **Planning and Abstraction License granted**
31 December 2023
- ▼ **Start on site (main construction)**
1 March 2024
- ▼ **Construction complete/Commissioning**
31 December 2025
- **Commitment to complete under Green Recovery**
31 March 2026

Spend £m

2021/22: 0.123

2022/23: 3.483

ACTIVITY	OFWAT MILESTONE	PREWLEY TO NORTHCOMBE DATE	ROADFORD PUMPED STORAGE DATE	PREWLEY TO NORTHCOMBE CUMULATIVE SPEND (£M)	ROADFORD PUMPED STORAGE CUMULATIVE SPEND (£M)	TOTAL CUMULATIVE SPEND (£M)
OFWAT financial determination of GRP	○	31/07/2021	31/07/2021	0.00	0.00	0.00
Options appraisal complete	○	31/01/2022	31/01/2022	0.05	0.07	0.12
Outline design complete	○	31/03/2023	31/03/2023	1.26	2.22	3.48
Gatherley planning and abstraction licence granted			31/12/2023		2.50	2.50
Start on site (main construction)	○	01/07/2023	01/03/2024	1.50	3.00	4.50
Construction works complete	○	31/12/2024	31/12/2025	13.23	13.83	27.06
Required completion date under DWI Notice SWB-2021-00009 Prewley WTW	○	31/03/2025		13.23	13.83	27.06
Commitment to complete under Green Recovery	○	31/03/2026	31/03/2026	13.23	13.83	27.06

Green Recovery initiative continued

3 Smarter, healthier homes

Agreed proposal

Increased water usage and unexpected repair bills from leaking service pipes can result in acute financial pressures for individual customers and particularly for those who are financially vulnerable. Smarter, healthier homes focus on investment that directly benefits our customers.

This project is an integrated regional pilot to manage water efficiency, water quality and affordability for customers – in the North Devon region. It focuses on three key areas:

- Installation of smart meters – enhancing customer engagement to help them manage their water use and bills more easily
- Supply pipe 'adoption' trial – relieve the worry of sudden unplanned financial demands arising from leaking and/or failed service pipes
- Proactive lead pipe replacements – take a significant step towards eliminating lead supplies across our region.

Progress

The delivery of the three SHH projects is fully underway. AMI meter installation is progressing steadily, having started in the Bideford area, working through the DMA's. The network coverage provided by Netmore LoRaWan is also on track for delivery and is providing coverage in the areas of install and much further in advance.

Activities completed so far include:

- Diehl Metering with the Netmore Group secured the AMI contract and Hydrotech Water Service UK Ltd was the successful company for the lead replacement contract
- The South West Water Lead Replacement team have surveyed 1,094 properties year to date (YTD), selected using the current lead model which predicts the likelihood and confidence of identifying lead pipes
- 91 pipes have been renewed so far in 2023/24 and there is a full programme of jobs planned through the summer. With work planned street by street to minimise disruption for our customers
- Internal lead pipe renewals will start in 2023.
- A lead model has been developed to support the identification of lead pipes, this model is how properties are identified as properties to reach out to investigate their supplies. One of the key drivers is the age of property
- Meters installed are ramping up, with over 2,000 AMI meters have been installed in 2023/24, and the programme is on track to deliver by the 31st March 2025. The retrofit programme started in April 2023 alongside the replacement programme. The data mast installation programme is underway and meters are successfully connecting to the network
- New Connection and Meter optants have started to install AMI meters in advance of the data coverage programme, ready to connect was the programme progresses.

Data has been an important part of the programme and the projects have been developed to maximise the opportunity to capture as much data as possible. This includes capturing the broader benefits of replacing lead pipes through capturing pressure and flow pre and post lining, establishing if there are any leaks (flow rate) pre replacement, and full details on the customer journey.

Delivery challenges have been varied, but they have been steadily overcome and the project is on track to meet goals set by March 2025.



930
Smart meters rolled out

24
Lead pipes replaced

404
Customers signed up for lead replacement



In line with Ofwat’s ‘Green economic recovery: Final decisions’ (pages 113 to 115) published in July 2021, we are required to provide additional reporting in respect of the classification and costs of new meters installed as well as benefits generated.

As reported in table 10A of South West Water’s Annual Performance Report, all meters installed so far as part of the programme are the replacement of residential meters. As such our additional reporting this year is as follows:

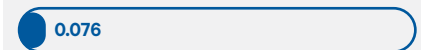
METRIC	UNIT	VALUE	FURTHER COMMENTS
Number of existing basic meter installations replaced with AMI capable smart meters or upgraded to AMI functionality	Number, 000s	930	All meters are under the ‘Replace external (domestic) category’
Existing basic meter installations replaced with AMI capable smart meters or upgraded to AMI functionality – outturn costs	£, million	0.028	All costs are under the ‘Replace external (domestic) category’
Percentage of household properties within our smart metering trial area covered by the company communication network	%	c60%	This percentage is based upon reporting gathered by the Company, based on the early phase of the trial so far and we will provide further analysis as the trial scales up in the forthcoming years
Percentage of smart meter installations in the smart meter trial are providing a successful daily transmission of daily data	%	54	

Future programme

- ▼ **Full delivery element started**
January 2023
- ▼ **Review of first 1,000m installation**
April 2023
- ▼ **Retrofit installation programme starts**
1 April 2023
- ▼ **Internal lead replacement starts**
May 2023
- ▼ **Customer data available for them to view their water consumption**
Summer 2023
- ▼ **AMI installation complete**
31 March 2025
- **Lead replacement programme complete**
31 March 2025

Spend £m

2021/22



2022/23



Green Recovery initiative continued

4 Storm overflows

Agreed proposal

The demands and expectations on wastewater infrastructure, of the public nationally and regionally, has increased.

We are proposing three complementary projects which will inform our future strategy and business plans:

- Extend our overflow monitoring and investigations programme – install up to a further 414 event duration monitors (EDMs) and complete 100 additional investigations
- Develop an inland river bathing water pilot – to test the implications, costs, and benefits of achieving bathing water designation and deliver specific asset enhancements
- Trialling surface water separation – assessing the sustainability of this activity to reduce storm overflows during heavy rainfall.

Progress

Storm Overflow Assessment Framework (SOAF)

All Storm overflows have EDMs. 33 SOAF investigations have been completed and are pending final sign off. The project is on track to meet the required 100 SOAF investigations.

Dart and Tavy River Bathing Waters Pilot

In recognition of the significant value of our rivers and inland waters to communities across the region, as part of our Green Recovery Programme, South West Water are undertaking a £3.9m, three-year Pilot Project on the Rivers Dart and Tavy. The Project began in 2022.

The Dart and Tavy Inland Bathing Waters Pilot aims to increase our understanding of the water quality of these two iconic rivers. We will look to reflect the interactions of South West Water assets along with farming, industrial / commercial discharges and land run-off, which will help us to target investment on our own impacts and to support changes in agricultural land use where an impact becomes clear. The Pilot also aims to build stronger relationships and collaborations with river users, local communities and stakeholders, to develop an approach that will inform our strategy for the designation of river bathing waters across the South West region. The South West is already home to 150 designated coastal bathing waters. This pilot will explore how we might begin taking the same approach to river bathing waters, starting with two rivers that we know are popular for recreation.

A focus on inland water recreation

The popularity of our rivers and inland waters as places for recreation has grown significantly over the last 20 years, and the effects of the COVID pandemic appears to have only strengthened people's desire to connect with the natural environment.

Previously, the rivers of the South West have largely been the preserve of anglers and kayakers.

However, in recent years there has been a rapid increase in both the number of people who want to use them for recreation and in the types of activities they are seeking to undertake. From boating, to fishing, kayaking to wild swimming, the rivers of our region are now alive with activity. Health and wellbeing benefits that come from spending time in our natural environment are now well documented. In addition, the potential benefits of water-focused recreation and tourism to the regional economy are significant.

In recent years, the rapid emergence of wild swimming as a popular activity among sections of society has been focused on fresh waters and estuaries (i.e., away from the coastal areas where it has always been popular). This activity has been hugely encouraged by groups such as The Rivers Trust (Enjoy rivers - wild swimming), Outdoor Swimming Magazine (Outdoor Swimmer), Surfers Against Sewage (who have a campaign to promote inland bathing water designation and have produced a manual on how to do it), Friends of the River Dart, and many others.

Moving towards inland bathing water designation

Applications for new inland bathing water designations are now being actively encouraged and supported by various river and water quality organisations (such as Surfers Against Sewage, The Rivers Trust and others) and by various policymakers around the country.

While South West Water will not be applying for any inland bathing water designations, there are several local landowners and community groups considering applications for designation at locations on both rivers and their estuaries. Having said this, actual proposals for designation are currently only being developed for sites on the lower reaches of the River Dart, which has emerged as a 'frontrunner' of the inland bathing movement in the South West region. There were already numerous environmental and community groups in South Devon, but many of these are now actively championing river ecology, water quality and water-based recreation (especially swimming).

Pre-eminent among these groups in the Dart catchment is the Friends of the River Dart (FoD) group, which despite only recently being formed, already has >800 members in its Facebook Group. This voluntary group, led by a small core of dedicated individuals (including local resident, Hannah Pearson), are now collaborating with several other local stakeholders (e.g., the Dart Harbour Master, Paul Britten) to scope out and apply for inland bathing water designations in several locations in the lower reaches of the River Dart (at Dartington) and along its estuary (Dartmouth, Stoke Gabriel, Dittisham, Totnes).

While the River Tavy is popular with recreational river users (e.g., kayakers, anglers and swimmers) in certain locations at certain times, there are not any local groups who have expressed their intent to apply for bathing water designation on this river.

The hoped-for outcome of this designation process is to trigger the monitoring, regulation and investment necessary to improve water quality in these locations, such that the bathing water standards are achieved. The risk is that serial failure of the standard (assessed by the Environment Agency) could result in de-designation and the breakdown of the relationship between the public and the organisations perceived (rightly or wrongly) as being responsible for the failure.

Monitoring programme

To support this community-led designation process, we have commissioned detailed investigations to assess where and when SWW assets and activities, and assets outside of SWW, may influence the water quality around these candidate locations. This is to help us determine what investments may be required in these assets and catchments to ensure that they do not pose a threat to the water quality in these rivers, or to any future bathing water designation that may come into effect on them.

The first year of bathing season sampling across the Dart and Tavy catchments has been completed to create a baseline of water quality information.





The monitoring programme has also been extended in certain locations throughout the winter and preparations are now underway to begin the second bathing season sampling programme. In summer 2023, we will be using a state-of-the-art genetic monitoring technique called ‘Microbial Source Tracking’ to determine which types of animals are contributing bacteria to the river water at certain times.

The monitoring programme has included the use of near real-time river monitors and ‘spot-samples’ across both catchments and the data gathered is being combined with the results of the water quality modelling work also underway.

This data, coupled with storm overflow monitors throughout both rivers are now being combined with additional information gathered from the communities of the Dart and Tavy has been used to identify which SWW assets need to be improved to protect bathing water quality.

Stakeholder engagement

Since the project began, we have communicated the project to many stakeholders (including riparian interests, landowners and community groups) on both rivers. Our aim has been to adopt a collaborative approach and, in addition to establishing a Stakeholder Group, the team have also had numerous meetings with local groups and individuals about the project.

The engagement lead for the project has established a good collaborative relationship with key stakeholders such as Friends of the River Dart, the Dart Harbour Master, the EA Catchment Coordinator, Dartington Estate, South Devon Catchment Partnership, Sustainable South Hams, Bioregional Learning Centre, South Hams District Council and many others.

While many of these stakeholders were initially cynical about our project, we have worked hard to win them round and they are now much more open to dialogue and collaboration. What has emerged through this dialogue is that, in many cases, the understanding of how the water system works is quite low and we are helping to build a better shared understanding of the issues/changes and solutions, so that we can have a much more informed and evidence-based discussion.

To supplement our engagement work and to support the local stakeholders, we have designed and launched a communication and engagement campaign using the ‘Hello Lamp Post’ platform. This approach will be used at the candidate inland bathing sites and in other riverside locations to assess how people are using the river, raise awareness of river water quality issues and capture people’s perceptions of the river throughout the year.

The data gathered in this way will be shared with the stakeholders and will be used to support the application for designation. See below an image of the sign that will be deployed.


The pilot is also helping us determine how we can provide water quality information direct to the public, and how we make sure this is timely and useful. The project is also providing a highly valuable testbed for other initiatives that are exploring how South West Water can share data and information with customers and stakeholders (e.g., WaterFit Live and the European Commission-funded Waterverso Project).

We have already been working with stakeholders to help them easily understand and interpret the large volumes of highly complex information this is generating. We are pleased to have been able to share the water quality data in advance of significant stakeholder events on the river, including the 10K swim on the Dart, and with the Dart Harbour Master ahead of specific events. This data sharing has allowed the organisers of these events to make more informed decisions on river water quality safety.

Plans for 2023

Our monitoring work and collaboration with local stakeholders have allowed us to identify which SWW assets need to be improved to protect bathing water quality. We have identified all assets that may impact on the proposed inland bathing water locations and prioritised them for investment.

The project team is now using the data collected to co-design with stakeholders the measures to be implemented. This targeting and design work provides the perfect opportunity to pilot the ‘Green First’ framework and to develop our capabilities in the integrated use of nature-based and traditional engineered solutions to reduce storm overflow spills to the level required in close proximity to bathing waters.

 For further information about the Dart and Tavy River Bathing Waters Pilot contact: DartTavy@southwestwater.co.uk

Surface Water separation trials

We are in preliminary stages of the project, but we are on track to meet the project deadline

Future programme

Summer 2022 into 2023

- River water quality monitors and storm overflow monitors deployed and data gathering begins
- Ongoing stakeholder and community engagement
- Trial of the Window on the Environment platform

Winter 2023 into 2024

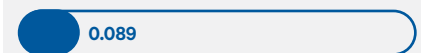
- Full review of all our findings including cost benefit analysis
- Programmes to improve river water quality

Spring 2025

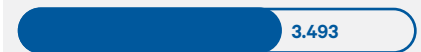
- Report on findings published
- If appropriate, following completion of the pilot, we would support bathing water designations on the Dart and Tavy rivers

Spend £m

2021/22



2022/23



Green Recovery initiative continued

5 Catchment management

Agreed proposal

Since 2010, we have been working with our project partners, farmers, and landowners to deliver our innovative and award-winning land management programme Upstream Thinking.

Our Green Recovery (GR) proposal provides us with an opportunity to further expand this programme across Dartmoor National Park and the surrounding landscapes. We will undertake 10,000 hectares of catchment management activities including:

- **Peatland restoration** - on areas with some of the most severe damage and degradation on Dartmoor
- **Working for landowners and farmers** - to protect raw Water quality and availability
- **Natural flood management and nature recovery** - improving biodiversity and enhancing natural habitats.

Progress

Catchment Scheme

Devon Wildlife Trust (DWT) and Westcountry Rivers Trust (WRT) have been extremely successful in delivering this year's catchment management scheme across the various Drinking Water Protected Area (DWPA) catchments within Dartmoor National Park and Tavy Area of Outstanding Natural Beauty (AONB). These works have been focused on implementing on-farm interventions associated with mitigating the risks linked to elevated concentrations of Geosmin and dissolved organic carbon (DOC) in raw water, whilst also contributing to water quality and biodiversity improvements. Financial year 22/23 commenced 634 ha behind target and finished the year 780 ha ahead of target, thanks to all the hard work of the delivery teams. Annabel Martin, the WRT Project Manager, said "Our advisors working within the Green Recovery area have enjoyed engaging a new group of farmers, who have previously had only very limited access to advice and funding for environmental work. Significant progress has been made in helping these farmers see the way to make their businesses more resilient, and more aligned with the environmental challenges ahead. Next year will see us take these relationships further, as well as developing new ones. Our aim is that farmers within the Green Recovery area will develop a sound understanding of the benefits that improved soil, nutrient, and habitat management can have for their business, as well as for the environment".

Peatland Restoration

The SWPP have been focused on delivering peatland restoration across eight Dartmoor River catchments. Last year the team successfully restored 240 ha of degraded peatlands. This year the team has benefitted from a considerable round of recruitment, enabling improved delivery and has seen a further restoration of 96 ha. The team is still on-track to meet its 1,000 ha of peatland restoration by 2025, resulting in the sequestration of 356,185 tonnes of CO₂ equivalent.

Biodiversity Improvements on SSW Landholdings

SWLT have been focusing on delivering habitat and species improvements to two major SSW landholdings on Dartmoor, Venford and Burrator. Investigations are now complete on Burrator with investigations nearing completion at Venford. Further proposals are also in the pipeline for works surrounding Avon reservoir. A total of 65 ha of biodiversity improvements have been delivered by SWLT this year. SSW also welcomes Barney Agar to the Natural Resources team who joined in March as our new GR Dartmoor Project Coordinator. Barney will be responsible for delivering biodiversity improvements to over 100 SSW landholdings across Dartmoor National Park. Barney's work, combined with SWLT's work, will also deliver water quality and flow benefits alongside biodiversity improvements.

Summary

To date, we have successfully delivered more than the 3,000 hectares we targeted of catchment management across the three workstreams. Thanks to the success of GR and UST we have again met the combined performance commitment of 96,209 ha for 2022/23 of new land under active management and look forward to another successful year ahead.



The first grant in the Tavy catchment for £20,000 was successfully signed-off. This grant was for erecting a roof and concreting an area in farmyard at Langford Farm, Lamerton (river Lumburn). The intervention will reduce 400m³ of water being fouled annually.



10,000

Hectares to be improved by 2025



£9.0m

Forecast costs



3,414

Biodiversity – Enhancement Hectares

2022/23 Actual

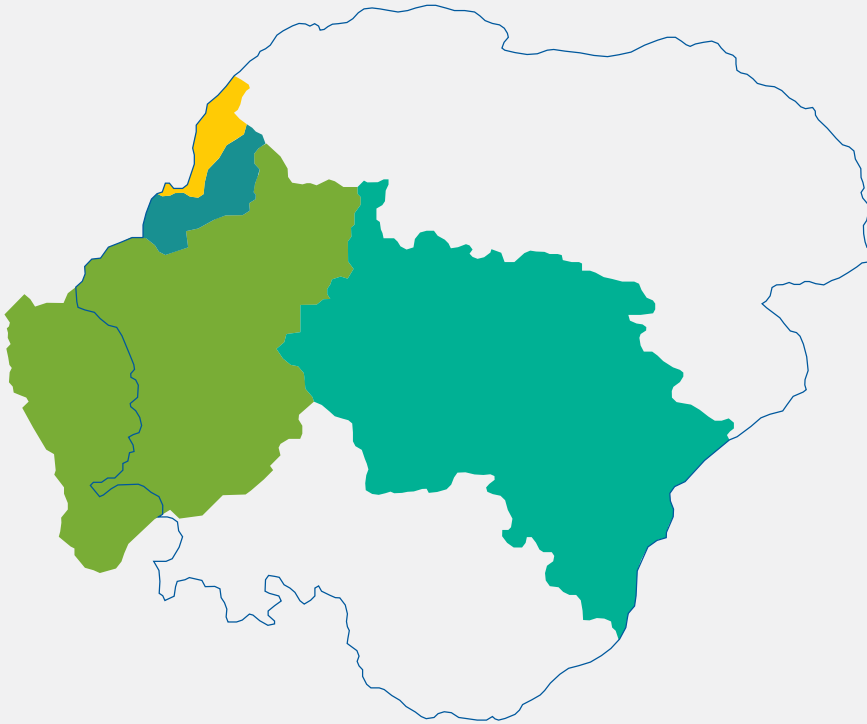
3,414

2022/23 Target

3,000

1. As per the Green economic recovery: final decisions document published by Ofwat, biodiversity and leakage commitments reflect will reflect revisions to the original business plan commitment.

Eligible areas Upstream Thinking (UST) GR Dartmoor Farm schemes



Key

- Lew area
- Upper Lyd area
- Tavy catchment
- Dart area
- Dartmoor National Park boundary

Future programme

▼ **Delivery partners delivered 366 ha of catchment management activities.**

31 March 2022

▼ **Delivery partners delivered a further 3,414 ha of catchment management activities.**

31 March 2023

● **Delivery partners to deliver a further 3,000 ha of catchment management activities.**

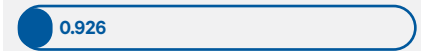
31 March 2024

Delivery partners to deliver a further 4,000 ha of catchment management activities.

31 March 2025

Spend £m

2021/22



2022/23



Financial Expenditure by Green Recovery area

The following table shows actual expenditure to date for 2021/22 and 2022/23 as well as forecast expenditure profile for the delivery of the remaining three years of our Green Recovery programme. All values are in 2017/18 prices.

1 Knapp Mill WTW

EXPENDITURE	2021/22 £M	2022/23 £M	2023/24 £M	2024/25 £M	TOTAL £M
Capital expenditure	1,096	1,368	–	–	–
Operating expenditure	–	–	–	–	–
Totex	1,096	1,368	–	–	–
Determination	2,770	5,678	8,114	8,315	24,877
Difference	1,674	4,310	–	–	–

As a result of the ongoing challenge to planning permission, the future profile of expenditure is under review however, we remain confident in delivering the outcome by the deadline.

2 Grid enablement

EXPENDITURE	2021/22 £M	2022/23 £M	2023/24 £M	2024/25 £M	TOTAL £M
Capital expenditure	0.113	2,950	9,727	9,912	22,702
Operating expenditure	–	–	–	–	–
Totex	0.113	2,950	9,727	9,912	22,702
Determination	2,527	5,181	7,405	7,588	22,702
Difference	2,414	2,231	(2,322)	(2,323)	–

The project is on track to deliver the programme by March 2026, despite having a slower than expected start.

3 Smarter, healthier homes

EXPENDITURE	2021/22 £M	2022/23 £M	2023/24 £M	2024/25 £M	TOTAL £M
Capital expenditure	0.070	0.340	8,414	8,578	17,402
Operating expenditure	–	–	–	–	–
Totex	0.070	0.340	8,414	8,578	17,402
Determination	1,938	3,972	5,676	5,816	17,401
Difference	1,868	3,632	(2,738)	(2,762)	–

Smarter, Healthier Homes are on track to deliver the full programmes by March 2025. Whilst the projects and spend are now focussed into the final 2 years, the delivery models are established and resourced to meet the programme outputs.

In 2022-23 the programme established the teams required to deliver, went through a competitive tender process (based on the proportion of spend) to comply with EU procurement regulations to set up the necessary contracts and delivery models to meet the aims of SHH. The lead project is a new workflow requiring new business processes to be developed and established which were completed in this period. There were some challenges around establishing the customer journey and ensuring successful sign up which have been overcome and has led to successful engagement with customers taking up the offer of renewing their private supply pipes. AMI meters had a challenge initially around securing stock which has been overcome, and for all contracts resourcing challenges have been the main delay.

All contracts are forecast to deliver the projects in this condensed timeframe.

4 Storm Overflows

EXPENDITURE	2021/22 £M	2022/23 £M	2023/24 £M	2024/25 £M	TOTAL £M
Capital expenditure	0.082	2.959	2.300		7.642
Operating expenditure	–	–	–	–	–
Totex	0.082	2.959	2.300	2.301	7.642
Determination	2.137	3.043	1.231	1.231	7.642
Difference	2.055	0.084	(1.069)	(1.070)	–


The project is on track to deliver the programme by March 2025.

5 Catchment management

EXPENDITURE	2021/22 £M	2022/23 £M	2023/24 £M	2024/25 £M	TOTAL £M
Capital expenditure	0.853	3.042	2.436	2.669	9.000
Operating expenditure	–	–	–	–	–
Totex	0.853	3.042	2.436	2.471	9.000
Determination	1.002	2.054	2.936	3.008	9.000
Difference	0.149	(0.988)	(0.500)	0.399	–

The project is on track to deliver the programme by March 2025.

Net Zero

 For details on our Net Zero programme and performance, please see pages 24 to 25 our 2022/23 Annual Performance Report (APR)



Assurance

Jacobs, our external technical ODI assurer, has provided assurance in conjunction with its 3rd party assurance programme of the performance commitment outturn as reported in our Annual Performance Report.

This has included:

- An audit of our performance in respect of forecast and delivered performance commitment benefits from the Green Recovery Programme (as shown on page 01)
- An independent engineering-based review of progress in respect of our five programmes
- Assurance in respect of progress in respect of completed milestones for the Knapp Mill water treatment improvements (noting the scheme is currently pending planning application approval)
- Assurance over the reporting of progress to date in the smarter, healthier homes - scheme delivery requirements.

Further assurance is being performed as part of the PR24 process, including but not limited to, the forecast of likely outturn position at the end of March 2025 for the Knapp Mill Water Treatment Works and completed milestones and likely outturn position at the end of March 2025 for the Water Resource Grid Enablement programme.



