

CATCHMENT REPORT 2019

Wessex Water
YTL GROUP



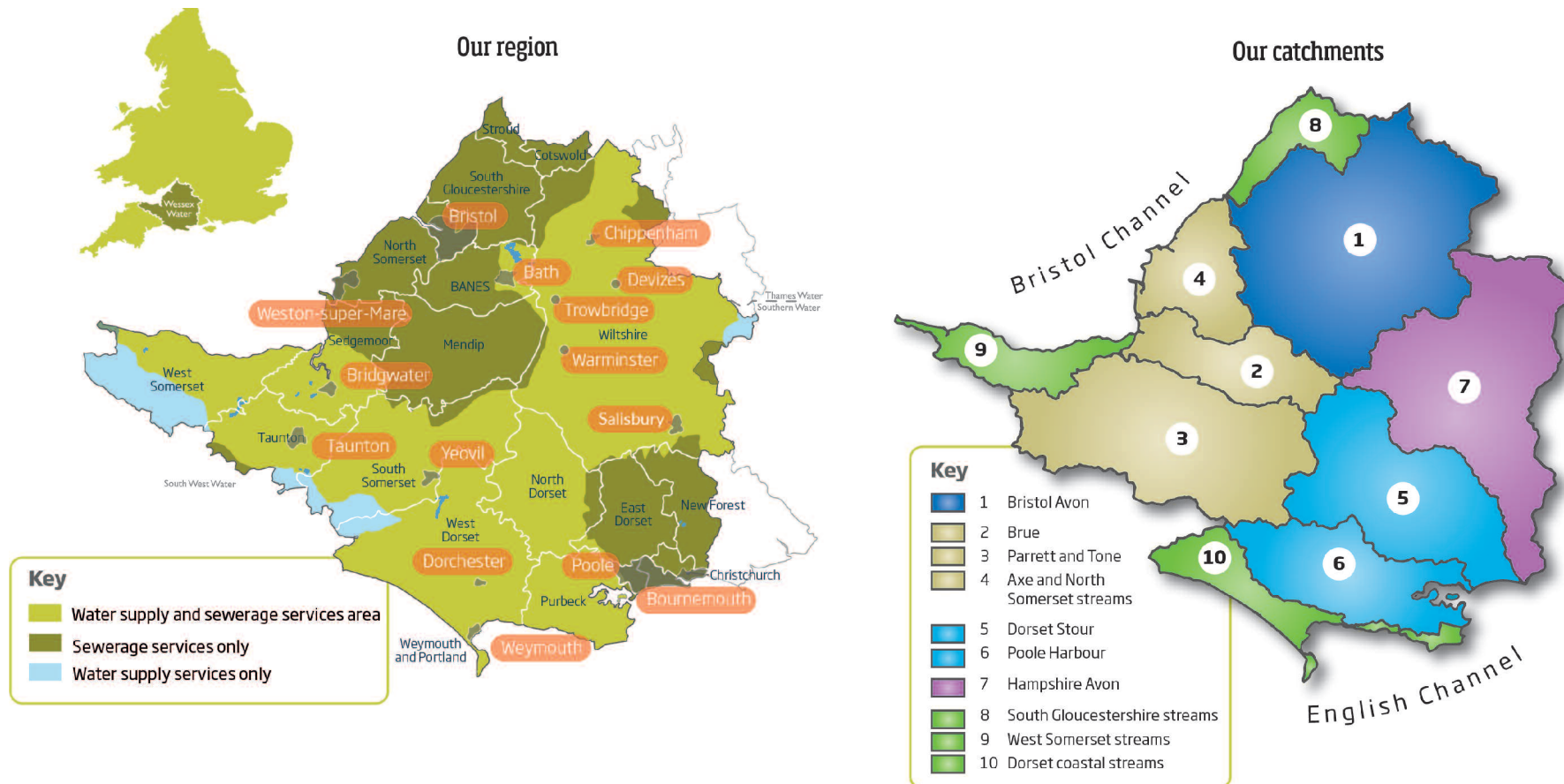
wessexwater.co.uk

FOR YOU. FOR LIFE.

Catchment report 2019

This report is a summary of our activity during 2018-19 and accompanies our interactive online catchment report which can be found at wessexwater.co.uk/catchmentmanagement

What area do we cover?



Catchment report 2019

Protecting water sources

We use catchment-based strategies to protect our service levels; often this means we can deal with the source of the problems not the symptoms.

In the Poole Harbour catchment, we have been working with farmers to offset our nitrogen contributions from Dorchester water recycling centre. Through our EnTrade auctions we have consistently beaten our target of 40 tonnes reduced per year over the last three years.

And we continue to support catchment partnerships across our whole region, involving dozens of projects and partners and hundreds of farmers and landowners.

Rivers, streams and estuaries

Last year was characterised by a dry and hot summer and autumn. Catchment soils reached record levels of dryness, delaying the start of reservoir and groundwater refill and over the year we received only 80% of the rainfall we expect. At the start of 2019-20 reservoirs are full but some groundwater aquifers are at below average storage levels.

Nevertheless, we expect to continue providing service without the need for restrictions like hosepipe bans.

We successfully met our performance commitment regarding the abstraction incentive mechanism at Mere during 2018-19. We didn't export any water from the catchment when groundwater was below the trigger threshold.

Issues addressed by our 2015-20 investment programme include low river flows that can occur during dry weather, phosphorus in rivers and streams, flooding from the sewerage system and bathing water quality.

We support four catchment partnerships within our region, including co-hosting the Bristol Avon and Dorset partnerships.

Since 2016, 14 projects have been delivered via the Bristol Avon catchment fund and have restored 64ha of habitat, improved 15km of river and engaged or supported more than 30 farmers.

Over the last year the Dorset catchment partnership has been involved in 38 projects across the three catchments - Poole Harbour, Stour and West Dorset Rivers and Coastal Streams. There are more than 20 partners involved with further engagement from over 500 people across the catchment, including more than 100 farmers/landowners.



Catchment report 2019

Bathing waters

This year 96% of our bathing waters passed strict environmental standards. This is below our aspirational 100% target. Two beaches (Weston Main and Burnham Jetty) were assessed as having below standard water quality.

Much of this is outside our control but we have completed schemes in 2018-19 that could help the bathing water quality, including constructing a 2,500m³ underground storage tank at West Quay car park and a 5,000m³ storage tank at Colley Lane, both in Bridgwater.

Schemes to improve our assets that may affect the Burnham Jetty bathing water include:

- constructing a 3,000m³ underground storage tank and a new pumping station at Bristol Road, Bridgwater
- proactively investigating misconceptions of foul flows that could end up in the River Parrett in Bridgwater
- providing 150m³ storage at a new pumping station to transfer flow from Combwich to Cannington
- installing UV disinfection plant to disinfect flows from Combwich and Cannington.

We support Litter Free Coast and Sea project officers in both Dorset and Somerset. They deliver innovative engagement and awareness campaigns promoting behaviour change to residents, tourists and businesses on actions which can be taken to improve bathing water and beach quality.



Environmental investigations

Our investment should always be based on sound scientific evidence. By gathering data through investigations, we can better understand our impacts and then trial solutions.

Between 2015 and 2020 we are delivering 45 environmental investigations, with nine outputs delivered in 2018-19, seven relating to the chemical investigations programme, one water resources investigation and one water resources implementation scheme. Investigations include:

- the occurrence and removal of hazardous and emerging substances from sewage effluent
- the effectiveness of green and social prescribing to reduce pharmaceutical concentrations in sewage
- trialling new, sustainable treatment solutions for phosphorus and chemical removal
- understanding the ecological impact of our reservoirs and abstractions

We have also taken a more catchment-based approach to understanding and managing nutrients (phosphorus and nitrogen) in the environment. As part of our catchment permitting trial in the Bristol Avon catchment, we have been assessing the impact from our assets across the catchment rather than at specific sites. This has enabled us to deliver a greater level of phosphorus reduction - 42 tonnes against a target of 31 tonnes this year - at a lower overall capital cost.

Catchment report 2019

We won the 2017 Institute of Water national innovation award for the catchment permitting programme we co-designed with the Environment Agency in the Bristol Avon and our innovative environmental trading scheme EnTrade.

The new techniques trialled this year, some of which are part of our extensive environmental investigations programme, included:

- before construction starts, we investigate any potential impact on the environment, wildlife, archaeology and geology. This includes checking for the presence of protected and rare species. The latest innovation has been to develop the ability to use a sniffer dog to support terrestrial great crested newt surveys.
- at Sutton Bingham reservoir we are using radio frequency tags and time-lapse photography to monitor sediment movement
- mobile kiosks housing river quality analysers that upload data every half hour
- novel treatment methods for reducing phosphorus in effluent, including the use of Bio-mag, a material that uses magnetite (an oxide of iron) to improve settlement in sewage treatment, and an algal pond designed by the University of Bath, populated by locally dominant varieties of algae.

The outcome of our investigations is being fed into our next business plan, to deliver the most cost effective and sustainable solutions for our customers with the best environmental results. For further information please see our Conservation, Access and Recreation Report.

Biodiversity

This year we continued work to achieve a company performance commitment to assess 100% of our eligible landholding for its biodiversity value by 2020. By the end of the financial year we had brought the total land assessed to more than 95% of over 2,000 ha of eligible land.

Our proactive conservation programme is set out in our Biodiversity Action Plan (BAP), through which we aim to halt or reverse biodiversity loss on our land. Our compliance with the national Site of Special Scientific Interest (SSSI) target is now at 99.5% of SSSI-designated land in favourable or recovering condition, of which 62.5% is in favourable condition. This exceeds the national target of 95% favourable or recovering with at least 50% favourable.



Catchment report 2019

Carbon management

One of our long-term sustainability goals is to be carbon neutral in our operations. Our net greenhouse gas emissions fell to 118 kilotonnes carbon dioxide equivalent in 2018-19. This continues a trend of reductions that began 10 years ago and is our lowest annual operational carbon footprint since we began reporting in 1997.

It also meant that we met our performance commitment for the year. As in previous years, it was achieved through a combination of concerted energy efficiency work, renewable energy generation and the rapidly falling carbon dioxide intensity of UK grid electricity.

Meanwhile, our operating division GENeco continues to export biomethane to the local gas grid, and struck an agreement with Bristol Energy, in addition to the sale of green gas certificates to Unilever.



Catchment report 2019

Environmental Performance commitments 2018-19



	2018-19 actual	2018-19 target	2018-19 vs target	2019-20 target	2015-16 to 2019-20
EA's Environmental Performance Assessment*	Good	Leading	✗	Leading	
Agreed schemes delivered	100%	100%	✓	100%	
Beaches passing EU standards	96%	100%	✗	100%	
Monitoring combined sewer overflows (CSOs)	80%	43%	✓	100%	
River water quality improved (number of water bodies)	38	11	✓	70	
Compliance with abstraction licences	100%	100%	✓	100%	
Greenhouse gas emissions (ktCO ₂ e)	118	121	✓	119	
Proportion of energy self-generated	25%	21%	✓	24%	
Abstractions at Mere exported (megalitres per year)	0	100	✓	100	
BAP landholding assessed and managed for biodiversity	96%	90%	✓	100%	

	2018-19 actual	2018-19 target	2018-19 vs target	2019-20 target	2015-16 to 2019-20
Length of rivers with improved flows (kilometres)	111	99	✓	99	
Collapses and bursts on sewer network	257	<300	✓	<300	
Water main bursts	1,939	<1,993	✓	<1,993	
Volume of water used per person (litres per head per day)	147	132	✗	131	
Volume of water saved by efficiency promotion (litres per head per day)	3.06	2.59	✓	3.26	

For more information

email: env.info@wessexwater.co.uk or
look at our website: wessexwater.co.uk

