

# SOMERSET CATCHMENTS - THE FACTS

Within the county of Somerset, we operate in several major hydrological catchments:

- The Parrett catchment.
- The Tone catchment.
- The West Somerset Coastal Streams catchment.
- The Bristol Avon, Brue and Axe catchments and the headwaters of the Otter and Stour catchments.

## KEY ISSUES

### Sewage treatment

Within the Somerset Catchment Partnership area, we operate 155 Water Recycling Centres (WRC, formerly known as sewage treatment works), 601 Sewage Pumping Stations and 311 Storm Overflows (SO).

### Nutrients

One of the main issues to affect the Somerset catchments is the impact of nutrients in rivers and wetlands. This is primarily from phosphorus, although nitrogen can also have an effect particularly around our coasts and estuaries. Phosphorus causes eutrophication (where the nutrients cause excessive growth of plant life) in rivers and wetlands and is a particular problem for protected sites in the Somerset Levels.

### Bathing waters

It is important to protect bathing water quality for recreational users of our seas and some inland waters. Water quality around the Somerset coast is affected by many factors, including our own discharges from treatment works and SOs, but also by diffuse pollution in river catchments upstream of bathing waters.

We have invested in upgrading our sewerage and sewage treatment infrastructure at various locations to improve bathing waters by:

- increasing storage in our network (to reduce the number of discharges from SOs)
- installing ultraviolet treatment to improve the quality of our discharges
- installing monitoring equipment so that we understand when our SOs operate.

For example, at Burnham-on-Sea in 2019 we completed a £39 million scheme to upgrade infrastructure around the mouth of the River Parrett and in Bridgwater to help improve the bathing water quality of Burnham Jetty.

### Water supply

Within the catchment, we operate 11 water treatment centres and nearly 200 distribution sites (including 10 large surface reservoirs).

### Pesticides and source protection

Land upstream of our large surface reservoirs has been designated as drinking water safeguard zones by the Environment Agency. Within these areas, certain substances must be managed carefully to prevent the pollution of the raw water sources (including fertilisers and pesticides).

We work with farmers in these zones to:

- raise awareness of surface water quality issues
- share results of water, soil, crop and manure testing that we have carried out for them
- provide advice and information
- compensate farmers (where appropriate) for adopting more water friendly alternative practices (such as buffer strips).

In AMP7 (2020-2025), we will extend our work with farmers in the River Tone catchment upstream of the abstraction point for Durlough Water Treatment Centre to reduce pesticide runoff from agricultural land.

## Key investments completed to 2020

### Nutrients

By the end of AMP6 (2020) we have installed phosphorus removal at:

Site	Approximate cost (£k)	Year	Approximate Phosphorus removed (tonnes/year)
Pilton	700	2020	0.2
Bruton	850	2020	1.1
Ilton	800	2020	0
Thornford	2,000	2020	0.9
Sparkford	750	2020	0.4
Ilchester	700	2020	0.5
Taunton	2,850	2019	44.3
Wellington	1,150	2018	4.1
Yeovil	3,700	2014	19.6
Sherborne	1,400	2014	4.1
Wells	1,000	2014	7.8
Shepton Mallet	3,800	2013	5.1
Evercreech	1,400	2014	2.3
Glastonbury	2,000	2015	7.1

### Environmental investment

- **Durlough Wetlands Project** - in 2019 we completed construction of a new large-scale wetland (at an approximate cost of £1 million) upstream of our reservoir at Durlough (Bridgwater) to remove heavy suspended sediments in the water entering the reservoir and prevent it silting up. We also improved habitats in the Durlough Brook and reverted eight hectares of arable land to biodiversity grassland.
- **Sutton Bingham, Durlough, Ashford, Hawkridge, Leigh and Luxhay Catchment Biodiversity Projects** - we mapped priority habitats for wildlife within these catchments and provide advice and funding to landowners to make biodiversity improvements alongside steps to reduce risk of pollution.
- **Biodiversity Partners Programme** - provided more than £280,000 to projects within Somerset since 1998, including:
  - Somerset Floodplain & Catchment Woodland project (2010-2015 with FWAG SW)
  - Parrett Rivers Project (2002-2006 with Somerset Wildlife Trust & FWAG SW)
  - Somerset Biodiversity Partnership (2010-2015)
  - Ham Wall Reedbed (1998-2006, with the RSPB)
  - Westhay Reedbed and Heath (1998-2002, with Somerset Wildlife Trust)
  - Resource protection in the Parrett Catchment (2006-2010 with FWAG SW)
  - Brue Valley Living Landscapes Project (2006-2010 with Somerset Wildlife Trust)

- Rewe Mead Nature Reserve Improvement Project and Blackwater & Brown hairstreaks projects (2015-2018, with Somerset Wildlife Trust)
- **Conservation, Access and Recreation** - 26 projects delivering improvements for biodiversity and access on our sites, including: tree and bat roost assessments; management of woodland and scheduled ancient monuments; enabling beaver trials on the headwaters of the River Otter; improved visitor interpretation.
- **Streamclean team** - tackling sewerage misconnections.

## 24 investigations completed 2010-2020:

- **Lam Brook** - evaluating the impacts of our abstractions on the stream.
- **Cannington Stream, River Tone, Durleigh Brook, River Tone & Yeo and Sutton Bingham Stream** - investigations into impacts associated with our reservoirs on these watercourses (including ecology) and implementation of measures to improve environmental quality at some locations.

- **Minehead, Burnham-on-Sea and Weston-super-Mare** - bathing water investigations to understand the influence of our discharges on bathing water quality.
- **South & West Wessex Catchments** - understanding phosphorus levels from our discharges on the receiving environment and also affecting our assets.
- **Sutton Bingham, Clatworthy and Durleigh** - quantifying risk from grazing livestock around reservoirs as a potential option for managing grassland for biodiversity.
- **Somerton WRC** - investigation to discover the effectiveness of reed beds for sewage treatment and nutrient removal at Somerton WRC, and more widely at WRCs discharging to the Somerset Levels and Moors.
- **Nutscale, Clatworthy, Hele Bridge, River Yeo, Hawkrigde, Durleigh, Ashford, Bridgwater and Currypool** - eel investigations.

## Somerset Catchment Partnership

We have supported the Somerset Catchment Partnership since its inception and provide £10,000 annual funding.

## Planned investment 2020-2025

In addition to ongoing expenditure on our waste and water supply treatment and network assets, our business plan sets out the following key expenditure:

### New phosphorus removal

Site	Approx Phosphorus removed (at 2020) (tonnes/year)	Additional Phosphorus removed by 2024 (tonnes/year)	Approximate Cost (£m)
<b>Brue &amp; Axe</b>			
Upper Brue	2.3	0.6	8
Lower Brue	7.1	2.9	
Sheppey	12.9	5.6	
<b>West Somerset Coastal Streams</b>			
Stogursey Brook		0.4	0.8
<b>Parrett</b>			
Cary		6.0	44
Isle, Fivehead and West Sedgemoor		15.6	
Lower Parrett		3.5	
Lower Parrett Western Streams		1.5	
Parrett Headwaters		14.4	
Yeo	25.5	14.5	
<b>Parrett (Tone)</b>			
Lower Tone	55.8		4
Northern Tone		3.7	
Upper Tone	4.1	1.4	
<b>Total</b>	<b>107.7</b>	<b>70.1</b>	<b>56.8</b>

## Catchment nutrients

- **Catchment nutrient balancing** - within parts of the River Tone and Parrett catchments, we intend to work with farmers to reduce levels of phosphorus from their land management to balance the need to reduce phosphorus levels from our WRCs. This is a more sustainable and nature-based approach which combines nutrient reduction with other benefits, such as improvements for biodiversity and flooding.
- **Somerset Levels and Moors Wetland** - delivering water quality (nutrients) and biodiversity improvements to nationally and internationally important sites for nature conservation.

## Environmental investigations

- **North Petherton WRC** - determine the impact of the WRC on the Petherton Stream.
- **Nitrogen and phosphorus reductions** - Durleigh Reservoir.
- **Invasive non-native species (biosecurity Improvements)** - at Nutscale, Clatworthy, Hawkrigde, Currypool, Ashford, Durleigh, Luxhay, Leigh and Sutton Bingham.
- **Invasive non-native species (raw water transfer risk assessments)** - at Albert Street, Currypool, Wimbleball, Hele Bridge and Otterhead.
- **Improvements to assets for Eel Passage** - Clifton Maybank (near Yeovil), Albert Street (Bridgwater).

## Biodiversity

The following projects will be undertaken across the Wessex Water region, but are likely to include sites within Somerset:

- Maximising opportunities for birds at our water recycling centres.
- Priority habitat restoration and recreation.

**FIND  
OUT  
MORE**

You can access more information about our work in the Somerset catchments on our website – [wessexwater.co.uk/environment](https://wessexwater.co.uk/environment)

- Use our interactive investigations map to download more information on each investigation.
- Read more about our catchment management work.

- Find out about our Drainage and Wastewater Management Plans including the location and frequency of operation of our storm overflows.
- View sample results and flow data from our water recycling centres on our Marketplace website.
- Read our business plan for details of our investments over AMP7 (2020-2025).