

At a glance

KEY POINTS FROM 2019-20



spent in Somerset by Somerset Rivers Authority on flood risk reduction and greater resilience



of places benefit across Somerset



and maintenance dredging of the River Parrett from Stathe down towards the M5 uses techniques old and new



Major projects reach key stages backed by SRA – Bridgwater Tidal Barrier and Taunton Strategic Flood Alleviation Improvements Scheme will protect more than 15,000 homes and businesses



Private Members' Bill to establish SRA as separate legal body passes Second Reading in House of Lords, but is then withdrawn. Government still pledges to support SRA



More than 200 different activities and schemes, countywide, to Slow the Flow of water through Natural Flood Management

SuDS

Somerset-specific guidance on Sustainable Drainage Systems (SuDS) is being produced along with a study of possibilities for SuDS in Yeovil. SuDS inspections are carried

out county-wide

around ----14,418

highways structures given extra cleaning to stop roads flooding, roads raised and drains upgraded in West Somerset, major studies completed in Cheddar and Beckington near Frome

BUILDING LOCAL RESILIENCE TO FLOODING AND TO CLIMATE AND ECONOMIC CHANGE

through supporting community flood groups, giving out grants, and investing in very localised improvements and adaptations

Front cover: Pioneer dredging the River Parrett between Stathe and Burrowbridge, with Burrow Mump in the distance.

About Somerset Rivers Authority

DURING the devastating floods of 2013-14, Somerset decided to try a new, local approach to tackling flooding. A range of partners drew up a 20 Year Flood Action Plan. Somerset Rivers Authority was launched in January 2015 to oversee that Plan and do the extra work that long experience has shown Somerset needs.

There is no single answer to Somerset's many flooding problems, and different parts of the county have different needs. That is why the SRA was set up as a partnership. Different organisations are limited in what they can do individually, but working together as SRA partners they achieve more than what would otherwise be possible. They can take local, grassroots views about what is important for people in Somerset.

SOMERSET RIVERS AUTHORITY BOARD was made up of the following during 2019-20:



each represented by **one member**



Axe Brue Internal Drainage Board and Parrett IDB each represented by two members

The Board meets quarterly. Main functions: set strategy and priorities, approve budgets and programmes of work, ensure progress and encourage partnership working, be publicly accountable.

SRA JOINT SCRUTINY PANEL

The Panel meets every six months. Each council has two representatives, the IDBs one each. Main function: scrutiny.

SRA Workstreams and Funding

Workstreams

Through local taxation, the SRA funds a unique depth and breadth of actions. These are grouped into five workstreams, that reflect the local priorities of Somerset's 20 Year Flood Action Plan, and the need to attack problems from different angles. The five workstreams are **Dredging & River Management (W1)**, **Land Management (W2)**, **Urban Water Management (W3)**, **Resilient Infrastructure (W4)** and **Building Community Resilience (W5)**.

Funding from local partners

In December 2015, the Government gave Somerset County Council and Somerset's district councils power to raise money for the work of the SRA. Every year, as things stand, councils can choose to raise a 'shadow precept' of up to 1.25% of council tax. In 2019-20, the total raised was £2.924million. The level of the charge has been frozen since its inception, although every year the total raised goes up by a small amount, as more people live in Somerset and pay council tax. The Parrett and Axe Brue Internal Drainage Boards also choose to contribute £10,000 a year each.

Funding from Heart of the South West Local Enterprise Partnership (HotSWLEP)

The SRA gets no central government funding from year to year. However, in 2014 Government funding of £13.049m was awarded through the HotSWLEP Growth Deal Fund for the carrying out of Somerset's Flood Action Plan (FAP) – with £3.55m for flooding alleviation works in 2015-16, and £9.5m for future years. As the body that oversees the FAP, the SRA plans to spend its Growth Deal funding by 2021 on several major projects.

Parrett and Axe Brue IDBs £10,000 per annum each HotSWLEP Growth Deal Fund 2019-20 £13.049m heart of the south west

Legislation

In February 2020, the SRA Chair and Vice-Chair met Taunton Deane MP Rebecca Pow, who is floods minister at the Department for Environment, Food & Rural Affairs (Defra). Ms Pow said there was currently no Government time available for legislation that could put the SRA on a secure long-term footing and give it the power to raise its own share of council tax. However, she expressed strong support for the SRA, and explained that the SRA's 'shadow precept' arrangements would remain in place, to enable the SRA's good work to continue.

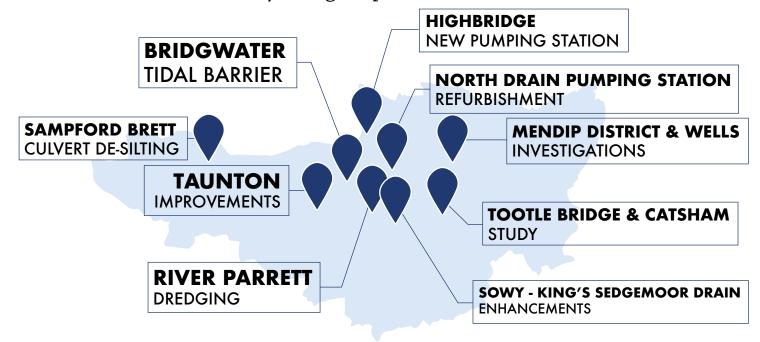
Defra did draft a Rivers Authorities and Land Drainage Bill that was introduced to Parliament as a Private Members' Bill by Somerton and Frome MP David Warburton in March 2018. The Bill won cross-party and cross-bench support. However, in June 2019, two influential Lords' committees questioned whether a Private Members' Bill was, constitutionally, the best way of proceeding. Mr Warburton withdrew his Bill in July 2019. He said he was "extremely disappointed" but "we'll get there one way or another in the end".





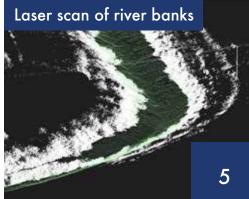
DREDGING & RIVER MANAGEMENT

2019-20 SUMMARY: Somerset Rivers Authority spends more on dredging and river management than it does on any other workstream. Recent work along the River Parrett includes pioneer dredging between Stathe and Burrowbridge and a trial between Northmoor and the M5, plus maintenance dredging using water injection dredging (WID) techniques and silt monitoring. Extra maintenance, improvements and investigations are being carried out across the county. Schemes are designed and delivered for the SRA by a range of partners and contractors.









Dredging and River Management



River Parrett pioneer dredging

Around 22,000m³ of sediment removed, banks widened and strengthened, features created that could benefit wildlife. *Above*, Iain Sturdy, Parrett IDB.



Mendip District & Wells

Analysis of sub-catchments and 23 high-priority sites, focused on culverts and watercourses which are not main rivers, plus a detailed study of the Knapp Hill catchment in Wells.



New Highbridge pumping station

A £100,000 contribution to a £1.8million Wessex Water scheme, to protect 21 homes from unpleasant sewer flooding.



River Sowy-King's Sedgemoor Drain enhancements

Preparations for channel improvements, and for replacing or refurbishing many water level control structures.



Sampford Brett, near Williton

De-silting of a 325-metre long culvert, which goes through the village centre and down to the Doniford Stream, where further improvements are planned.



North Drain Pumping Station

Part-funding of numerous repairs and improvements enabling new electric canister pumps to be installed, and more flexible water management in the Brue catchment.



Taunton

Support for an overarching scheme to protect over 1,000 properties, and for local moves at Longrun Meadow, Firepool Lock and low spots in flood defences along the River Tone.



Tootle Bridge and Catsham

A review of options to reduce flood risks for properties in these two hamlets about six miles south-east of Glastonbury.

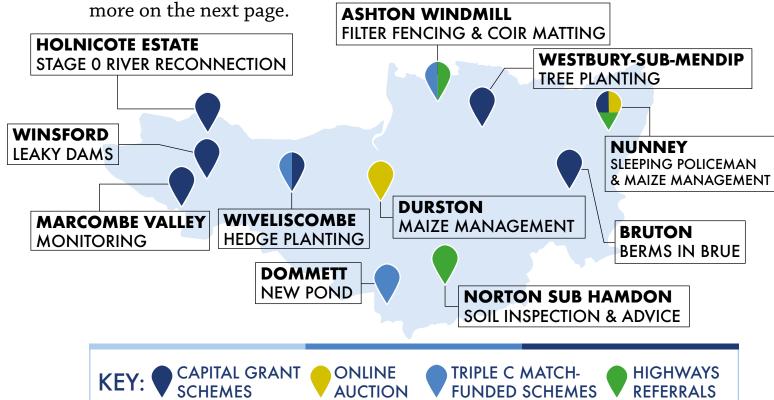


Bridgwater Tidal Barrier

£2million from the SRA has helped the Environment Agency and Sedgemoor District Council to speed up this project, and apply for the Transport & Works Act Order needed to build a Barrier, and so reduce flood risks to 11,300 homes and 1,500 businesses.

LAND MANAGEMENT INCLUDING NATURAL FLOOD MANAGEMENT (NFM)

2019-20 SUMMARY: 16 capital grant schemes (including 7 on the National Trust's Holnicote estate in West Somerset), 4 Triple C schemes, 26 highways referrals, 18 soil visits, and an online auction for natural flood management works which generated 147 successful bids. The map shows a small selection of the various schemes undertaken, some featured



Somerset Rivers Authority funds the biggest range of natural flood management activities in the UK. This workstream has won three national and international awards, the latest in April 2019 (1st Prize in the Interreg 2 Seas Project Video Awards). It is known for its sophistication, strong partnership working and dogged attention to local detail. Innovations backed include the country's first online auctions for natural flood management (NFM) works, and pilot projects with beavers and 'Stage 0' processes of river restoration. This workstream is led for the SRA by the Farming & Wildlife Advisory Group SW. Activities generally go under the popular local branding of Hills to Levels. This makes it easier for partners to get involved and to contribute matchfunding so that more can be achieved. Also - as Somerset has some famous hills and valleys and

floodplains – people just get the idea of trying to slow the flow of water from Hills to Levels.

The SRA is one of several bodies that have funded Hills to Levels over the last four years, firstly using Growth Deal money from the Heart of the SW Local Enterprise Partnership and more recently, money from council tax.

The three main strands of work are:

- 1. Capital grants offered to farmers and landowners for Natural Flood Management projects that slow the flow of water and reduce flooding risks across the county.
- 'Highways referrals' that is, looking for answers to highway flooding problems in better management of land nearby.
- 3. Soil husbandry, reducing surface water run-off.

Land Management including Natural Flood Management



Holnicote

Part-funding for seven schemes to slow the flow of water down through the Horner and Aller catchments, to places such as Allerford and Bossington.



Soil visits

Better soil husbandry helps to reduce the run-off of surface water. Keeping soil in good health also brings obvious benefits to farmers.



Stone berms

Created in Bruton by Brue
Crew volunteers to help slow
the flow in the upper reaches of
the Brue, to help scour silt out
from under part of the bridge,
and provide a new spawning
habitat for wild trout.



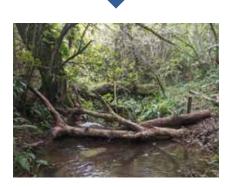
Online auctions

Online auctions for NFM works gave farmers a choice of measures to bid for, including better maize management (above, Nunney), planting hedges to slow the flow of water and aerating soil to increase the amount of rain that can be absorbed.



Leaky woody dams

Above, Winsford. Below, one of a cascade of five leaky woody dams at Chesterblade north-east of Evercreech, match-funding Triple C. The three Cs stand for Climate resilient, Community-based, and Catchment planning and management.





Highways referrals

26 investigations into how land management changes could reduce road flooding, with solutions such as this filter fencing and coir matting at Chapel Allerton near Ashton Windmill.



Water storage pond

Improvements to a large pond uphill from Curry Mallet, originally funded by the SRA in 2016-17, which has significantly reduced local flooding problems.



Hedge-planting

New hedges at two farms near Wiveliscombe are slowing runoff from fields and – says one farmer – "working really well".

W3

URBAN WATER MANAGEMENT

2019-20 SUMMARY: Work on the production of Somerset-specific guidance for high quality Sustainable Drainage Systems (SuDS), following the publication in 2018-19 of a major SRA review of SuDS across Somerset. Also drawing on SuDS review lessons, county-wide SuDS inspections have been carried out at places including Cheddar, Frome, Glastonbury, Henstridge, Langport, Monkton Heathfield and Taunton. A Yeovil SuDS and surface water study has progressed.

This workstream aims to reduce local flood risks and to make places better to live and work.

The SRA's focus is largely on Sustainable Drainage Systems, known as SuDS. When it rains, SuDS help to control the run-off of water from hard surfaces like roads, roofs and pavements. SuDS use techniques inspired by nature – such as permeable paving and plants and ponds – to absorb water and hold it back. SuDS can make places greener and more attractive, healthier for people and better for wildlife, with less pollution. More could be done across Somerset to use SuDS to their full potential. The SRA wants to encourage more high-quality SuDS on new developments and at existing sites which can be retro-fitted.

So, for example, **Somerset-specific guidance on SuDS** is being produced for the SRA by Somerset County Council using contractors JBA Consulting. Work in 2019-20 has included surveys, workshops, and the preparation of draft Somerset Local Standards for new housing developments, commercial properties and community facilities. The draft standards therefore cover issues such as water quantity, water quality, biodiversity and amenity. They set out key principles and specify requirements. A thorough and detailed Somerset SuDS website is also being created.



Across Somerset, attenuation basins and underground storage facilities (pictured left) are often used to hold water, but local SuDS could do much more. Well-designed SuDS should look, feel and operate like natural features within a landscape, and they should be easy and safe to maintain. A lot could be improved if people considered – and committed themselves to – integrating SuDS from the very earliest stages of site design. New SRA-funded SuDS guidance will help people to create well-designed schemes by outlining clear local requirements, promoting early engagement, and emphasising the multi-functional benefits that can be achieved.



The **Yeovil Urban SuDS Study** has been investigating how surface water flooding 'hotspots' around the town could be tackled through the use of SuDS. The study is being delivered for the SRA by the Farming and Wildlife Advisory Group Southwest, working with Somerset County Council, and using Yeovil Rivers Community Trust (YRCT) as contractors. Several locations have been identified where SuDS could potentially address surface water flooding problems and provide other benefits.

RESILIENT INFRASTRUCTURE

2019-20 SUMMARY: Extra maintenance works across Somerset to reduce flood risks to roads and nearby properties, including gullyemptying, drain jetting, and de-silting of structures. Bigger schemes to tackle long-running flooding problems have included drainage upgrades at Monksilver and drainage upgrades and road-raising at Shurton and Burton in West Somerset. Flooding problems around Beckington and Cheddar have been studied in more detail than ever before.

Two of the six main objectives in Somerset's 20 Year Flood Action Plan relate directly to making Somerset's infrastructure more resilient. One is to 'Maintain access for communities and business', another is to 'Ensure strategic road and rail connectivity, both within Somerset and through the county to the South West peninsula'.

Both these targets stem from the frustrations of 2013-14, when floods closed 81 roads, often for long periods. Countless people suffered difficulties. Businesses lost time and money. 86% of Somerset businesses were badly hit, costing the local economy up to £15 million.

So as it oversees the Flood Action Plan, Somerset Rivers Authority deals with highways as well as waterways. Hundreds of places susceptible to local road flooding benefit from extra maintenance works funded by the SRA. With gullies, for example, Somerset County Council's Highways Department empties gullies in areas most susceptible to flooding once a year. The SRA funds an additional six-month round for 14,221 of the highest-risk gullies countywide

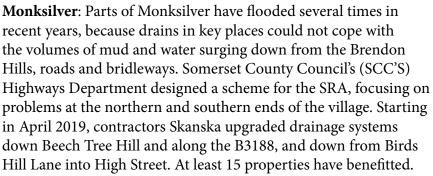
The aim is to keep roads open, make them safer, preserve access for communities, and safeguard properties from flooding.

12 185 14,221 structures drains de-silted drains jetted gullies emptied



RESILIENT INFRASTRUCTURE ACTIVITIES FOR 2019-20







Shurton and Burton Highway Flood Relief: Works in autumn 2019 reduced the risks of Shurton and Burton being cut off by flooding. They also improved an emergency evacuation route from nearby Hinkley Point, where more than 2,000 people are building a new nuclear power station. SCC's Highways Dept designed improvements for the SRA. Along Water Lane at Burton, the road was raised by up to 30 centimetres and the roadside drainage system was strengthened and upgraded. Along Shurton Road, the carriageway was raised by up to 50 cms. More than 600 tonnes of bituminous material were laid. The drainage system was also improved, with new outlets put into the stream that flows under Newnham Bridge.



Beckington near Frome has long suffered flooding problems. Almost every possible aspect of these has now been investigated for Somerset Rivers Authority by a range of partners and contractors, led by Mendip District Council's Flood Risk Consultant. Only a small number of inaccessible features – such as old stone-lined culverts going underneath houses with no manhole covers – escaped attention. Residents' co-operation has been invaluable. Moves are now being planned to tackle problems from different angles. A bid for further SRA funding is expected.



A study of flood risks in and around **Cheddar** has been produced for the SRA by SCC and contractors JBA Consulting. Data was reviewed from many sources and useful information contributed by the Parish Council, caving groups, local businesses and members of the public. The study will be used to help identify measures which could be taken by the SRA and its partners to safeguard properties, businesses and a very special part of Somerset. Possible mitigation and resilience measures are now being assessed.



Pictured left, two recent illustrations of flooding problems in November 2017, when the B3135 through Cheddar Gorge was closed for a week while rocks and debris were removed and the road was repaired.

BUILDING LOCAL RESILIENCE

2019-20 SUMMARY: Two new community engagement officers began working with people, groups and parish councils across Somerset. Affordable flood insurance survey results were analysed and fed back to communities. Four communities got SRA grants for equipment (Allerford & Selworthy, Dulverton, Ham, Holcombe). The SRA partfunded Somerset's second Community Resilience Day. A very localised community flood alert system has been devised as a pilot project in the Washford catchment (including Luxborough and Roadwater). Adapting the Levels (part-funded by the SRA) held successful events in Wedmore and Langport and worked with parish and town councillors, farmers and communities on the Somerset Levels & Moors on ways of adapting to the water-related effects of climate change (flooding and drought). A pilot project is being planned with Climatewise at the University of Cambridge, about dealing with increasing environmental pressures.

One of the six main objectives of Somerset's 20 Year Flood Action Plan is to "Increase resilience to flooding for families, agriculture, business, communities and wildlife". The Plan said that after the floods of 2013-14 people should first be helped to re-establish their day-to-day lives. Communities, individuals and businesses should next be helped to prepare and adapt for future floods. The SRA has never claimed that floods in Somerset can be entirely stopped. But if people can become better informed and better equipped, they will be better placed to protect themselves against floods and to recover more quickly afterwards.

So the SRA now funds a full-time Community Engagement Officer (Emma Giffard) and a Community Engagement Support Officer (Dawn James). Both work closely with Somerset County Council's Civil Contingencies Unit and are members of the Somerset Prepared partnership. They benefit from – and contribute to – advice, guidance and support for local initiatives.

Communities visited by Dawn and Emma have included: Aller, Bridgwater, Burrowbridge, Cheddar, Martock, Monksilver, Moorland, Othery, Somerton, Stawell, Thorney, Washford, Wedmore, West Camel and Westonzoyland. In Huish Episcopi and Langport they worked with residents eager to re-establish a local flood group. Together they won support from Langport Town Council and Huish Episcopi Parish Council, then in March 2020 held a successful recruitment day in Huish, followed by a tour of Langport flood defences hosted by the Environment Agency. Across Somerset, it is intended to establish networks and communication systems that will allow volunteer flood wardens to share information and knowledge, and support each other.





BUILDING LOCAL RESILIENCE ACTIVITIES IN 2019-20

"GREATER RESILIENCE TO CLIMATE AND ECONOMIC CHANGE"

Somerset's Flood Action Plan aims to facilitate "better management of the most vulnerable and challenging parts of the Somerset Levels, with the consent of owners and occupiers, with the intent of helping them to remain profitable and build greater resilience to climate and economic change."

Adapting the Levels involves communities, farmers and landowners, businesses, water management experts and local government. Its purpose is to get people and organisations cooperating and adapting to the water-related effects of climate change (flooding and drought). The project is funded by the EU's Interreg 2 Seas European Regional Development Fundand the SRA, and will run until 2023. Its delivery partners are Somerset County Council, the Farming & Wildlife Advisory Group SouthWest and Somerset Wildlife Trust.

Adapting the Levels offers grants to farmers and landowners on the Somerset Levels & Moors for measures which will help them to become more resilient to flooding and drought. Community-led nature-based solutions in towns and villages such as Langport and Wedmore are also eligible.

The SRA's community engagement officers have been working with project officers from Somerset Wildlife Trust and consultants Trioss on ideas for the future with large numbers of local people. Initial focus areas have been parishes on Tealham and Tadham Moors near Wedmore, and Wet Moor and West Moor near Langport. Seeking and building consensus is central.

Two public drop-ins were held in February 2020, one in Wedmore, one in Langport. Their purpose was to raise awareness about the local impacts of climate change, to share information about nature-based solutions to flooding and drought, and to give people chance to contribute ideas, knowledge and experience. Over 330 people attended, and both events got positive feedback.

A Moor Associations Co-ordinator, a Farm Liaison Officer and a Water Management Adviser, all employed through FWAG SW, have been working directly with farmers and landowners. A West Moor Futures Group has been set up. Other groups are emerging on Wet Moor and Tealham and Tadham Moors. Local experience suggests that greater co-operation between farmers can enable greater collective buying power, more machinery sharing, better grazing arrangements and improved farmland infrastructure. Grants from Adapting the Levels for modest improvements such as restoring droves could also make marginal landscapes significantly easier to manage. The target is to make 4,000 hectares of the Levels more sustainable.

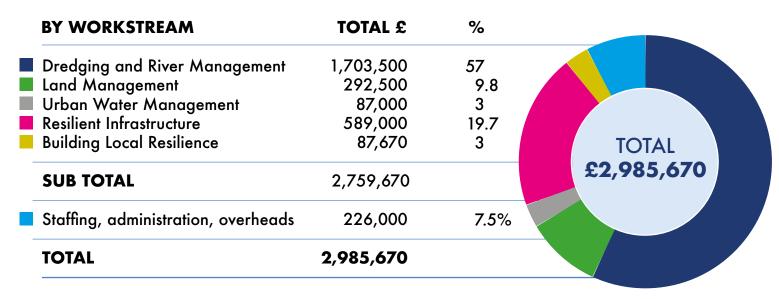




Financial Summary

2019-20 LOCAL PARTNER FUNDS

Somerset Rivers Authority (SRA) gets annual funding from two sources. Firstly, council tax. Somerset's local authorities raise money for the SRA through a 'shadow precept' (*see below). Secondly, the Parrett and Axe Brue Internal Drainage Boards (IDBs) make contributions. In 2019-20, the SRA received Local Partner Funds from these two sources totalling £2,946,300 (£2,926,300 'shadow precept', £20,000 from the two IDBs – £10,000 each). The SRA Board set a budget for 2019-20 of £2,985,670, with additional funds of just under £40,000 taken from contingency. The Board allocated 92.5% of this funding to an Enhanced Programme of works containing 28 schemes and activities, all designed to advance Somerset's 20 Year Flood Action Plan. The remaining 7.5% of funding was for staffing, administration and overheads.



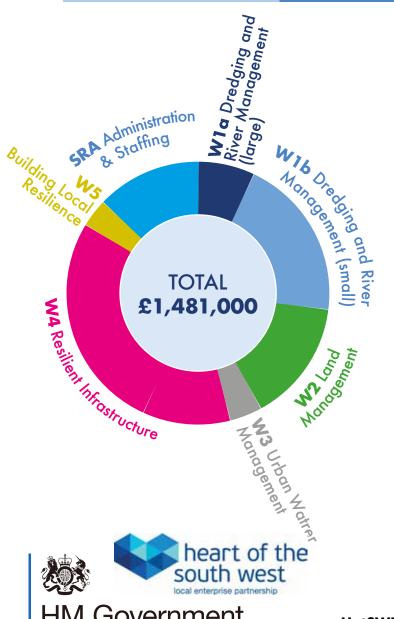
FINANCIAL STATEMENT

Since its launch in January 2015, the SRA has received Local Partner Funds of nearly £14.5m, and used these to fund 155 schemes, actions and initiatives. A large proportion are delivered within the same financial year. Some require longer term research, design, planning and implementation, so take longer to complete.

LOCAL PARTNER FUNDING 2019-20 FINANCIAL SUMMARY	ALLOCATED FUNDS AT START OF 2019-20 FINANCIAL YEAR £k	SPEND IN 2019-20 £k	FUNDS CARRIED FORWARD TO 2020-21 ONWARDS £k
Enhanced Programme of works	6,399	1,287	5,112
Contingency	220	0	452
Staffing, administration, overheads	242	194	48
TOTAL	6,861	1,481	5,612

^{*} The 'shadow precept' raised for Somerset Rivers Authority by Somerset County Council and Somerset's four district councils is a 1.25% 'alternative notional amount' (ANA) which is added to individual council tax bills, by permission of central government. The ANA can be used only to fund Somerset Rivers Authority. The level of the charge has not increased since 2016-17. For more information see page 4.

Financial Summary



The pie chart to the left shows SRA Local Partner Funding spend during the 2019-20 financial year, by Workstream (£k).

The SRA does not commission works directly, instead SRA partners deliver works on behalf of the SRA. Once works are complete, funds are claimed back from the SRA. Funds claimed back represent the SRA's actual spend. During 2019-20 the SRA processed delivery partner claims for Local Partner Funds totalling £1,287,000.

87% (£1,287,000) delivering the SRA's Enhanced Programme of works



13% (£194,000) for staff, administration and overheads

HotSWLEP Funding

Following the 2012 and 2013-14 floods, the Heart of the South West Local Enterprise Partnership (HotSWLEP) awarded £13.049m of Growth Deal funding up to March 2021 to enable key capital schemes delivered. The table below provides the current balance of Growth Deal funding and what was spent in 2019-20.

13,049,000 25,221,747 23,764,802 5,892,099

HM Government	HotSWLEP FUNDING	MATCH FUNDING	FUNDING SPENT UP TO END	FUNDING SPENT DURING
HotSWLEP FUNDING A 2019-20 SUMMARY (£)	LLOCATION	TOTAL £	2019-20 £	2019-20 £
Pioneer Dredging River Parrett	2,444,263	9,416,681	9,194,537	1,027,728
River Sowy/King's Sedgemoor Drain Enhancement Scheme	7,989,737	2,399,130	5,760,167	822,734
Bridgwater Tidal Barrier (contribution)	2,000,000	5,076,177	6,179,052	3,963,174
Land Management Capital Grant Schemes	s 550,000	1,281,577	1,817,864	1,000
Taunton Strategic Flood Alleviation Improvements Scheme (contribution)	65,000	7,048,182	813,182	77,463

TOTAL

