

Summary of Annual Report 2020–21 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 can achieve more than 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 2020-21:



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 twice a year. Each council has two representatives, the IDBs one each. Main function: scrutiny.

At a glance

KEY POINTS FROM 2020-21

£3.344m EXTRA

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



of places benefit across Somerset



of the River Parrett downstream of Northmoor Pumping Station to the M5 using water injection dredging



River Sowy-King's Sedgemoor Drain Enhancements Scheme advances and around 100 water level control structures are upgraded at Westmoor, Moorlinch and Egypt's Clyse



More than 180 different activities and schemes, countywide, to Slow the Flow of water through Natural Flood Management



More than 6,000 trees and shrubs are planted by volunteers at 23 sites through new Trees for Water Action Fund

SuDS

Somerset-specific guidance on Sustainable Drainage Systems is being produced, along with a new website. SuDS inspections are carried out countywide, works progress in Rode near Frome

more than 200

highways structures given extra cleaning to stop roads flooding, drains upgraded in Bruton, silt traps installed in Barrington and Chard, scheme designed for A39 in Carhampton BUILDING LOCAL RESILIENCE TO FLOODING AND TO CLIMATE AND ECONOMIC CHANGE

through online training events with videos, Adapting the Levels initiatives and Moor Associations

SRA Funding & Legislation

Funding from local partners

For its first full year of work in 2015-16, the SRA had Interim Funding of £2.7million from the Department for Environment, Food & Rural Affairs (Defra), Somerset's local authorities and Somerset Drainage Boards Consortium. In December 2015, the Government gave Somerset County Council and Somerset's district councils the power to raise a shadow precept of up to 1.25% of 2016-17 council tax, to fund the SRA in 2016-17. The figure of 1.25% was chosen because it came close to matching the SRA's initial budget of £2.7m.

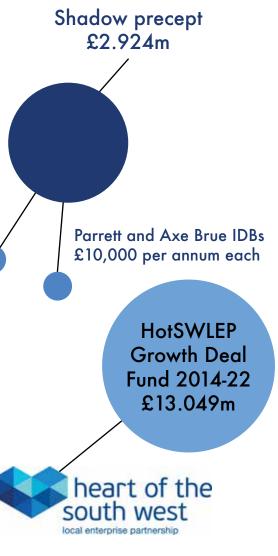
The SRA is still reliant upon annual shadow precepting and its level is still pegged to that initial £2.7m, although the actual amount of money raised has gone up. In 2020-21, it was £2.924million. In other words: the level of the charge is frozen, but as the number of households in Somerset increases every year, more people pay, so the total amount rises. 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 20 Year Flood Action Plan. As the body that now oversees the Flood Action Plan, the SRA has been spending this Growth Deal funding on several major projects, including dredging, River Sowy-King's Sedgemoor Drain enhancements and other activities covered in this report.

Legislation

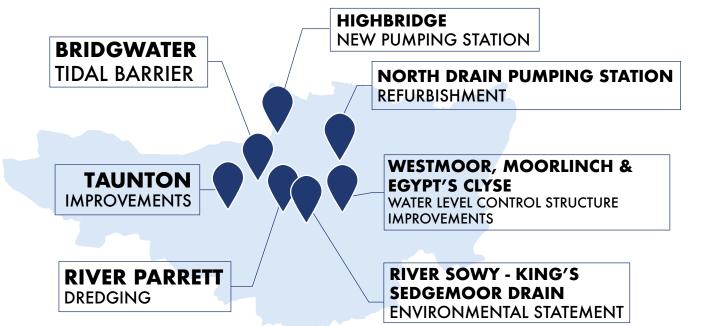
In October 2020, SRA Chair Cllr David Hall wrote to Taunton Deane MP Rebecca Pow, who is Parliamentary Under Secretary of State with responsibility for flooding at Defra. Cllr Hall asked about progress with legislation required to put the SRA on a secure long-term footing with the power to raise its own share of council tax. He said the SRA Board "firmly believes that the SRA being a major precepting authority is vitally important to ensure the residents of Somerset continue to enjoy an extra level of flood protection into the future." Ms Pow replied that because Parliament had a very large legislative programme to work through, increased because of the coronavirus pandemic and new working arrangements, it had not been possible to make progress with Rivers Authorities legislation. She remained "supportive of the Authority and the important work that it does, and [would] continue to explore opportunities... for taking this forward." She stressed the Government had no plans to remove the SRA's shadow precept arrangements, so the SRA could continue to operate while needed and wanted locally.

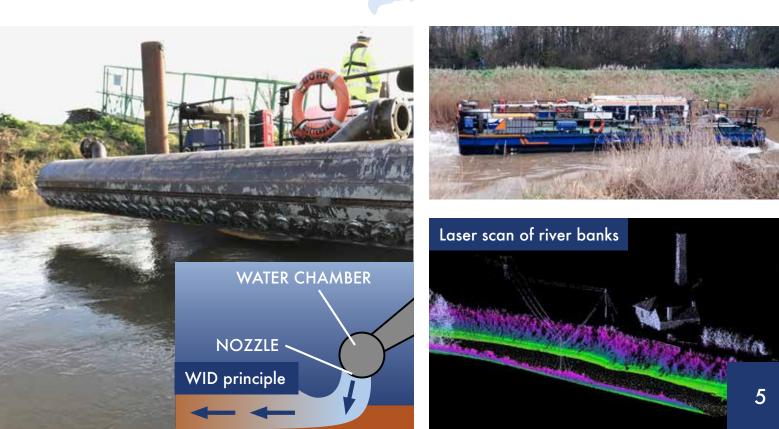




WI DREDGING & RIVER MANAGEMENT

2020-21 SUMMARY: Pioneer dredging along the River Parrett using water injection dredging techniques (see below); the development of detailed designs for enhancing the River Sowy and King's Sedgemoor Drain in 2021, including a successful public consultation about this scheme, and the refurbishment of around 100 water control features at Egypt's Clyse, Moorlinch and Westmoor; financial support for the Bridgwater Tidal Barrier, Taunton improvements, a flood protection scheme for homes in Highbridge, and repairs and improvements at North Drain Pumping Station; plus the development of detailed designs for a flow station on the River Parrett in Langport, to be built in summer 2021.





DREDGING & RIVER MANAGEMENT



River Parrett pioneer dredging Dredging of 1.37 miles of the River Parrett down to the M5 bridge removed around 22,000m³ of consolidated silt deposits. Dredging is combined with a sophisticated programme of silt monitoring.



Strategic Approach to Mitigation A 2-year plan for developing Somerset wetland monitoring and mapping, starting to update Water Level

Management Plans and exploring alternatives to Raised Water Level Areas.



River Sowy-King's Sedgemoor Drain The Environmental Statement for Phase One of the Sowy-KSD Enhancements Scheme successfully went out for public consultation, design work then continued to optimise the scheme still further.



Tounton Continued support for an overarching plan to protect over 1,000 properties, and two initial schemes progressing: River Tone Left Bank flood defences and Firepool Lock gates and bund.



Water level control structures Upgrading of around 100 structures at Westmoor, Moorlinch and Egypt's Clyse has helped SRA partners to better control local flood risks and benefit farmers and wildlife.



Bridgwater Tidal Barrier Continued support for the Environment Agency and Sedgemoor District Council as their bid to reduce flood risks to more than 11,300 homes and 1,500 businesses moved up to the Government for a decision.



New Highbridge pumping station The SRA contributed £100,000 to a £1.8million Wessex Water scheme, completed in autumn 2020, to protect 21 homes from unpleasant sewer flooding.



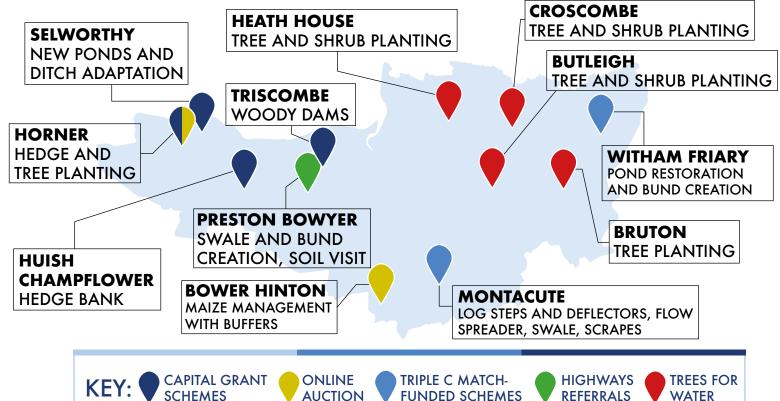
North Drain Pumping Station Part-funding of a second phase of repairs and improvements, enabling new electric canister pumps to be installed, and more flexible water management in the Brue catchment.



Langport flow station Ground investigations were completed and a flow gauge station was designed. The data it collects (after construction in 2021) will help to improve flood risk management across nearly 500 square miles.

W2 LAND MANAGEMENT INCLUDING NATURAL FLOOD MANAGEMENT (NFM)

2020-21 SUMMARY: 12 capital grant schemes, 6 Triple C schemes, 19 highways referrals, 3 soil visits, an online auction for natural flood management works which generated 119 successful bids, and 23 Trees for Water grant schemes. The map below shows a small selection of the various schemes undertaken.



Somerset Rivers Authority funds a huge range of natural flood management activities countywide. This workstream is led for the SRA by the Farming & Wildlife Advisory Group SouthWest. It is known for its sophistication, strong partnership working and dogged attention to local detail. Activities to Slow the Flow of water down through catchments generally go under the popular local branding of Hills to Levels. This makes it easier for partners to get involved and to contribute match-funding so that more can be achieved.

The SRA is one of several bodies that have funded Hills to Levels over the last five years, firstly using Growth Deal money from the Heart of the SW Local Enterprise Partnership and then money from council tax. The three main strands of work are:

- Capital grants given 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. Trees for Water grants given to landowners for small-scale localised planting schemes to reduce surface water run-off problems.

All this work aims to reduce the depth and duration of floods in Somerset; to diminish local flash flooding and flood risks; and to minimise sediment being washed from fields on to the banks of rivers. The benefits of this include less need for de-silting in lower catchments and less need for pumping to remove water on the Somerset Levels & Moors.

Land Management including Natural Flood Management





Across Somerset

18 grants for schemes to slow the flow at places including Queen Camel (above), Curry Rivel, Horner, Misterton, the Quantocks, Stoney Stoke and Tatworth's Jubilee Field.



Ponds

New ponds were made and old ones desilted at places including Meare Green, Selworthy, Thorne St Margaret and Witham Friary (above). A pond's bank was upgraded at Odcombe near Yeovil.



Highways referrals

19 investigations into how land management changes could reduce road flooding, with solutions like that above on the road between Tintinhull and Montacute.



Hedge planting

Hedges were planted – sometimes on new banks – at places including Elworthy, Holywell Lake (above, holding back water), Horner, Huish Champflower and Thorne St Margaret.



Trees for Water

23 grants given to to help communities reduce flooding problems caused by surface water run-off. Volunteers planted 3,645 trees and 2,638 shrubs. Above, Croscombe.



Woody dams

Near Triscombe on the Quantocks, 5 woody dams were repaired and strengthened, and 7 new ones created, to slow the flow of run-off, reduce soil erosion and trap sediment.



Slitting and subsoiling

Successful online NFM auction bids meant farmers did grassland slitting and subsoiling – to aerate soil, increase rain absorption – on 123 hectares (enough space to park 45,700 cars).



Maize management

Successful online NFM auction bids meant farmers practised better maize management techniques – such as growing winter cover crops – on 391,000 hectares (enough space to park 145,000 cars).



Montacute

A sophisticated scheme near Montacute House included Mill Stream works such as log deflectors and log steps, and floodplain works including a flow spreader, inlet swale and scrapes. **URBAN WATER MANAGEMENT**

The SRA's main Urban Water Management aims are to reduce local flood risks, and to make places better to live and work. The focus is largely on Sustainable Drainage Systems (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.

The SRA wants to see more high-quality SuDS created on new developments and retro-fitted where possible at existing sites.

A selection of activities in 2020-21

Somerset-specific guidance on SuDS has been produced to encourage the creation of high quality, multi-benefit, integrated SuDS at new housing developments, commercial properties and community facilities. Draft Somerset Local Standards draw upon lessons learned through an SRA-funded Somerset SuDS Review, which inspected 438 elements of 113 SuDS features at 20 recently-built sites and found that more could be done to use SuDS to their full potential. The Standards therefore set out key principles and specify requirements. For example, they say that SuDS should be integrated as part of local landscapes and made accessible to people. Residents should be able to meet each other, play, exercise and enjoy nature. The Standards are due to be published by autumn 2021. A Somerset SuDS website is also being created, for property developers, scheme designers, council planners and local communities.

Also following on from the SuDS Review, which noted some inadequate site management practices and site defects, an SRA-funded SuDS Inspections service has allowed local councils to check developments while they are being built. Very few formal SuDS inspection processes are in place across England: Somerset is at the forefront. Developments recently inspected have been in the Taunton area, Beckington, Crewkerne, Ilton and North Petherton.



Between 2016 and 2020, the SRA part-funded Somerset County Council's involvement in the EU-backed Interreg 2 Seas Somerset Sponge 2020 project. Given Taunton's designation as a Garden Town, the county council collaborated with Somerset West and Taunton Council on the design and construction of additional SuDS at the Coal Orchard riverside redevelopment site. In 2020, GreenBlue Urban tree pits were installed to bring water storage and water quality benefits. The pits will protect trees' roots, when planted, and help them to grow.

Eastwick Road in Taunton is being considered for a Highway SuDS Retrofit Trial. The planted chicanes or the grassed area at the bottom of the hill could show how some simple SuDS can deal with surface water and deliver more benefits than traditional drainage schemes. Design is scheduled for 2021-22, construction 2022-23.



Following an SRA-funded programme of investigations into subcatchments across Mendip that would benefit from Enhanced Maintenance, a package of flood risk reduction works began in Rode near Frome. Activities included drainage network surveys, with jetting to remove blockages, sediment and builtup limescale from culverts. The full project is expected to reduce flood risks to more than 25 properties and nine roads in Rode.

W4 RESILIENT INFRASTRUCTURE

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.

As it oversees the Flood Action Plan, Somerset Rivers Authority therefore deals with highways as well as waterways. Many places susceptible to local road flooding benefit from extra maintenance works funded by the SRA, and drainage upgrades that make a difference locally. Bigger projects tackle long-running problems, for example on the A39 through Carhampton.

SRA studies provide new insights into flooding problems, for example in the catchment upstream of Blackbird Bends on the A38 near Wellington. This is one of the busiest roads in Somerset and one prone to flooding.

NEW SILT TRAPS

A new silt trap was installed at the bottom of Bonnings Lane in Barrington to reduce flood risks in the village. Around 25 properties and many local road users will benefit. The silt trap captures sediments which could otherwise clog the local highways drainage system. Somerset County Council's Highways Department delivered this scheme for the SRA. It complements Natural Flood Management measures part-funded by the SRA to slow the flow of water down from fields above Bonnings Lane.

Two silt traps were installed in Crimchard, Chard, along Catchgate Lane and one in Laurel Gardens. Around 60 properties and local road users will benefit.

ENHANCED MAINTENANCE OF HIGHWAYS AND STRUCTURES

Drain jetting: 209 places benefitted in 2020-21; 45 in Mendip, 47 in Sedgemoor, 62 in Somerset West and Taunton, and 55 in South Somerset. SRA funding allows for earlier preventative maintenance at locations known to suffer problems with flooding.

Asset upgrades at frequently jetted sites: Works were carried out in 2020-21 at two locations, both in Dropping Lane, Bruton (the B3081), a busy road because of the popular Hauser & Wirth Somerset art gallery. Since 2016, SRA funding has allowed for extra pro-active drain jetting at many places, as outlined above (209 places in 2020-21). Some drains have had to be jetted many times, which indicates intrinsic problems that it makes sense to fix. Hence SRA-funded asset upgrades.



De-silting of structures: Works were done in Mendip, at Croscombe, Laverley and Stoke Bottom, in Sedgemoor, at Cheddar and Chilton Trinity, and in Somerset West and Taunton, at Bishops Lydeard and Stringston.



RESILIENT INFRASTRUCTURE ACTIVITIES FOR 2020-21

A SELECTION OF IMPROVEMENTS AND STUDIES



Carhampton: In March 2020, the SRA Board approved funding for a two-year, two-phase scheme to reduce flood risks at the A39 Carhampton Cross and down along Eastbury Road. The A39 through Carhampton is the main route in and out of West Somerset but it floods regularly to a depth that can make it impassable. Eastbury Road in Carhampton is part of the secondary route for people travelling between places such as Bridgwater, Taunton and Williton and Dunster, Minehead and Exmoor. Eastbury Road floods along with the A39, because water running off private land overwhelms existing drainage systems. Several properties are also affected by flooding.

In 2020-21, phase one, Somerset County Council's Highways Department completed a topographical survey and CCTV drainage surveys of the A39, Hill Lane, Vicarage Road and Eastbury Road. Milestone (formerly Skanska) then drew up detailed designs for improvements. Phase two, delivery, is currently expected to begin in mid-October 2021.

North Petherton: Where the Petherton Stream runs alongside part of Watery Lane, Sedgemoor District Council used SRA funding to replace two concrete bank plinths abutting a shallow silt trap. The silt trap edges were also replaced. Because the old plinths were undermined, they were putting at risk the foundations of two walls. The short wall between stream and road was partly rebuilt.

A38 Blackbird Bends flood alleviation study: Flooding centred around Hockholler Bridge, about half a mile north-east of Chelston, between Wellington and Taunton, has fairly often closed one lane of the A38, sometimes both. As the A38 is a busy road, and is used for diverted traffic if the M5 is closed, it is important to keep the road open. On behalf of the SRA, in 2019 Somerset County Council's Highways commissioners engaged WSP as consultants. It was suspected that the infrastructure in place for taking water under the road – the main Hockholler Bridge and two secondary culverts – would prove to be inadequate. In fact the problem was less straightforward.

Modelling showed that there should be enough capacity in the system to prevent the kind of annual flooding that has been occurring. But a survey also found that in practice the system's capacity was restricted, predominantly by silting-up in Haywards Water and at the downstream side of the bridge. The silting-up was surprising because the system had recently been cleaned out. Subsequent investigations found that silt was building up and not being washed away because of slow channel flow rates. These slow rates of flow could in their turn have several different interlinked causes and possible solutions. Next steps are now being considered by the SRA and partners.

Beckington: Following extensive investigations into flooding problems in Beckington near Frome, Mendip's Flood Risk Consultant and her team prepared a bid to the SRA Board for a follow-up scheme, which was approved in March 2021. Its aim is to give Beckington improved resilience to surface water flooding, through works including repairs to parts of the culverted system, improved access for maintenance, some upstream measures to reduce sediment-loaded run-off and debris entering the culverted system and fixing foul sewer misconnections (funded by Wessex Water).

W5 BUILDING LOCAL RESILIENCE

Coronavirus pandemic restrictions made it difficult for Somerset Rivers Authority's community engagement team to get out as they normally would and work with people on local projects.

However, while many plans for the year had to be changed, determined efforts were still made by the SRA's Community Engagement Officer (Emma Giffard) and Community Engagement Support Officer (Dawn James) to build local resilience.

ONLINE COMMUNITY RESILIENCE EVENT

Every October, Somerset Prepared usually hosts a popular Somerset Community Resilience Day with talks, demonstrations, mini-exhibitions and workshops. This event is supported and partly funded by the SRA. Pandemic restrictions meant that people could not gather as usual last October, so an online event was held instead. Over the summer, when fewer restrictions were in force, the SRA's community engagement team filmed a series of socially-distanced interviews, about people's experiences of planning for and responding to emergencies. Videos then premiered on YouTube included flood group case studies, resilience equipment grant testimonials, and stories of organisational pandemic adaptation. Featured communities included Ham, Holcombe, Langport, Martock, Misterton, Moorland, Taunton and Westbury-Sub-Mendip.

The Environment Agency also produced a series of videos. All videos can now be found on the Somerset Prepared website at <u>https://www.somersetprepared.org.uk/somerset-prepared-2020-events/</u>. A selection is also on the SRA website.





COMMUNITY GRANTS

The SRA funds a small number of grants for equipment and training given to Somerset communities by Somerset Prepared. One grant was given in 2020-21: Rotary International, for Personal Protective Equipment (PPE), flood bags and aqua sacks, for distribution by volunteer Rotarians to Somerset communities.

"GREATER RESILIENCE TO CLIMATE AND ECONOMIC CHANGE"

One of the aims of Somerset's 20 Year Flood Action Plan is 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." This ambition has fed into many different parts of the SRA's work, particularly into studies of possibilities for Wetland Biomass and into Adapting the Levels.

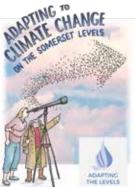
Wetland Biomass: 'Biomass' means natural material usable as fuel. In the specific context of the Somerset Levels & Moors and Somerset's 20 Year Flood Action Plan, it means wetland products such as reeds and rushes harvested from hard-to-farm areas of high environmental value.

BUILDING LOCAL RESILIENCE ACTIVITIES IN 2020-21

A real-life commercial case study was completed by Skanska in December 2020. Skanska assessed the need for heating Dunball Depot's two buildings and found that it would be "possible to provide a biomass system which connects and meets the full seasonal load of both buildings". But numerous challenges would need to be overcome. Skanska made six recommendations for further SRA-funded tests and investigations, but SRA Technical Group members agreed that any further moves at Dunball should be decided upon independently of the SRA by Skanska and Somerset County Council. All wetland biomass studies funded by the SRA are now on the SRA website.

Adapting the Levels and Co-Adapt: The SRA and the EU's Interreg 2 Seas European Regional Development Fund are funding a major project on the Somerset Levels and Moors called Adapting the Levels. Its aim is to get local people and organisations co-operating and adapting to the waterrelated effects of climate change (flooding and drought). Out on the ground, the project is being led by the Farming & Wildlife Advisory Group SouthWest, Somerset Wildlife Trust and Somerset County Council, with support from the SRA's Community Engagement team.

Successful workshops and public drop-ins were held in Langport and Wedmore in early 2020 and the intention was to hold follow-up events. The coronavirus pandemic made big get-togethers impossible, and so the partnership instead commissioned a local artist to help turn a mass of data into a nicely illustrated report featuring local faces and places. In December 2020, this 44-page report was published online at <u>www.adaptingthelevels.com/feedback</u> and summary leaflets detailing the findings were printed and distributed.



Two applications of the information in the report were partly developed during

2020-21. The first is a web-based app at <u>www.adaptingthelevels.com</u> that helps people turn ideas into plans called Adaptation Pathways. A lot of work also went into a mobile app called Somerset Trails. The app's aim is to encourage people to walk around the Levels as they are now, but with an eye to the future. Videos feature local people and experts linking parts of the landscape to the water-related risks of climate change.



Moor Associations: Moor Associations were encouraged by the SRA in earlier strands of Flood Action Plan work now absorbed into Adapting the Levels. The forerunner in 2018 was the West Moor Futures Group, followed by Tealham and Tadham Moor, and most recently Moorlinch.

The SRA's goal is to promote flood-resilient farming and good environmental outcomes in flood-prone areas, through greater collaboration between different sectors, chiefly farming, conservation and water management.

In 2020, improvements costing almost £30,000 were completed at Moorlinch, in partnership with Natural England, with Moor Association members setting up an innovative infrastructure maintenance fund.

New Moor Associations are in development at Curry Moor, Aller Moor (Beer Wall to Aller Drove) and on Sutton Hams near Moorlinch, allowing landowners to participate in this year's Test and Trial programme for Defra's new Environmental Land Management Scheme (known as ELMS). This trial will focus on the delivery of "public goods for public money". It is expected to help unlock new ways of managing water on the Somerset Levels and Moors. Nationally, ELMS is due to be Defra's main land management funding scheme by 2024.

2020-21 LOCAL PARTNER FUNDS

Somerset Rivers Authority (SRA) receives 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 2020-21, the SRA received Local Partner Funding from these two sources totalling £2,943,639 (£2,923.639 through the 'shadow precept', £20,000 from the two IDBs – £10,000 each).

Using the 2020-21 'shadow precept' and including £451,000 of contingency funds carried forward from the previous year, the SRA Board set a budget for 2020-21 of £3,394,270, with funding for four main strands. Firstly, for an Enhanced Programme of works containing 23 schemes and activities, all designed to advance Somerset's 20 Year Flood Action Plan. Secondly, for SRA staffing, administration, and overheads. Thirdly, for SRA Development Activities, associated with the future development of the SRA, for example the renewal of the Flood Action Plan, planning for becoming a precepting authority and opportunity-mapping for future SRA projects. Fourthly, for contingency.

2020-21 BUDGET BY WORKSTREAM	TOTAL £	%	
Dredging and River Management	325,000	9.6	
Land Management	410,000	12.1	
Urban Water Management	451,000	13.3	
Resilient Infrastructure	1,070,000	31.5	
Building Local Resilience	285,270	8.4	TOTAL
SUB TOTAL	2,541,270		£3,394,270
Staffing, administration, overheads	252,000	7.4%	
SRA Development Activities	150,000	4.4%	
Contingency	451,000	13.3%	

TOTAL

3,394,270

SPENDING OF LOCAL PARTNER FUNDING DURING 2020-21

Since its launch in January 2015, the SRA has received Local Partner Funding of just over £17 million. So far the Board has approved spending of this Local Partner Funding on 182 schemes, actions and initiatives, combining in total many hundreds of different elements. Most activities are generally delivered within the same financial year. Some require longer-term research, design, planning and implementation, so take longer to complete.

* The shadow precept raised for Somerset Rivers Authority (SRA) by Somerset County Council and Somerset's four district councils is set at 1.25% of 2016-17 council tax rates. It is enabled through an Alternative Notional Amount mechanism approved by a resolution of the House of Commons in February 2016. The SRA's shadow precept can only be used for funding the work of the SRA. The level of the charge has not increased since 2016-17. It has been part of the council tax base since 2016-17. For more information see page 6. It is important to note that the SRA does not commission works directly. Instead, SRA partners deliver the SRA's Enhanced Programme of works on behalf of the SRA. Once works are complete, amounts spent are then claimed back from the SRA. The SRA employs a small team to manage the partnership and work on activities related to the ongoing development of the SRA, such as preparing a new Flood Action Plan or improving the grant applications and assessment process. Amounts claimed back by partners plus SRA staffing and SRA development costs represent the SRA's total spend.

Coronavirus pandemic restrictions affected partners' delivery of works across the whole of the SRA's Enhanced Programme in 2020-21, resulting in less being spent during the year than was originally expected. No money was spent on SRA development, as work so far has been done by the SRA team. Work in future will require some specialist support and expenditure on external resources.

The summary below shows all of the Local Partner Funding held by the SRA at the beginning, and then at the end, of the 2020-21 financial year. The figure for funds allocated at the start of the 2020-21 financial year includes the new budget set using 2020-21 funds (£3,394,270) and SRA Local Partner funds carried forward from 2019-20 for ongoing activities and further contingency (£5,160,730).

TOTAL	8,555,000	1,172,000	7,383,000
SUMMARY	£	£	£
2020-21 FINANCIAL	FINANCIAL YEAR	2020-21	ONWARDS
LOCAL PARTNER FUNDING	OF 2020-21	SPEND IN	TO 2021-22
	FUNDS AT START		FORWARD
	ALLOCATED		CARRIED
			FUNDS
			ALLOCATED

Heart of the South West Local Enterprise Partnership

Following the Somerset floods of 2012 and 2013-14, to help with key parts of Somerset's 20 Year Flood Action Plan, the Government put £13,049,000 through the Heart of the South West Local Enterprise Partnership (HotSWLEP) Growth Deal Fund towards a project known as Somerset Flooding.

Specifically, the aim of this funding – channelled since the SRA's launch in January 2015 through the SRA – was to enable the delivery of larger capital schemes up to March 2021. In October 2020, HotSWLEP agreed to extend the SRA's funding agreement up to March 2022.

The overarching purpose of the Somerset Flooding project is to reduce the duration, depth, and frequency of flooding.

In practice, this means safeguarding houses, commercial premises, communities, and infrastructure, increasing business confidence and protecting agricultural land. The project has five main elements which are listed in the table on the next page.

To complement HotSWLEP's Growth Deal funding, the Somerset Flooding project has also had to secure significant local match-funding. The project's total budget is now £42,405,738. Other money has come from SRA Local Partner Funds, Flood Defence Grant in Aid, Triple C, the Environment Agency, Sedgemoor District Council, New Homes Bonus, Community Infrastructure Levy, Wessex Water and the Department for Environment, Food & Rural Affairs (Defra). The Growth Deal money channelled through the SRA has been a crucial component in a complex mosaic of HotSWLEP agreements.

Total spending on the Somerset Flooding project during the 2020-21 financial year was £4,215,819.

Of this total, £2,172,248 came from the SRA's allocation of HotSWLEP Growth Deal funding.

SOMERSET FLOODING 2020-21 SUMMARY (£)	HotSWLEP FUNDING ALLOCATION	GRO MATCH FUNDING TOTAL	SRA OWTH DEAL FUNDING SPENT DURING 2020-21	TOTAL SPENT DURING 2020-21	TOTAL SPENT FROM 2014 TO END 2021
Pioneer Dredging River Parre (and Brue Catchment works)	H 2,222,179	8,286,112	458,389	1,353,796	10,294,441
River Sowy/King's Sedgemoo Drain Enhancement Scheme	or 8,211,821	4,328,452	1,700,148	1,721,119	7,472,967
Bridgwater Tidal Barrier (contribution)	2,000,000	7,653,758	-	1,093,608	8,335,758
Land Management Capital Grant Schemes	550,000	1,285,234	13,711	17,368	1,835,234
Taunton Strategic Flood Alleviation Improvements Scheme (contribution)	65,000	7,803,182	-	30,000	843,182
TOTAL	13.049.000	29.356.738	2.172.248	4.215.891	28.781.582

TOTAL

13,049,000 29,356,738 2,172,248 4,215,891 28,781,582





FINANCIAL STATEMENT

During 2020-21 the SRA spent £1,172,000 of its Local Partner Funding and £2,172,248 of its HotSWLEP Growth Deal funding, making a total for the year of £3.344 million, as shown below.



W1 Dredging and River Management	. £2,303,605
W2 Land Management including Natural Flood Management	£320,419
W3 Urban Water Management	
W4 Resilient Infrastructure	£316,745
W5 Building Local Resilience	£108,683
SRA Staffing & Administration	

SRA Enabling Additional Funds

To maximise the benefits of its funding for the people of Somerset, the SRA helps to pull in money from external sources for schemes which advance Flood Action Plan ambitions. The table below shows how SRA match funding has been used to lever extra money into Somerset.

ADDITIONAL FUNDING SOURCE	PROJECT	EXTERNAL FUNDS	SRA CONTRIBUTION
Hills to Levels Multi Benefits through Environment Agency (EA) Water Environment Improvement Scheme	Natural Flood Management (NFM)	£363,000	£91,000
EA Riparian Tree Planting Fund	Trees for Water	£95,000	£55,000
Interreg 2 Seas European Regional Development Fund (ERDF), Co-Adapt	Adapting the Levels	€1,025,196	£297,940
Interreg 2 Seas ERDF, Sponge EU	Somerset Sponge	€408,000	£80,000
Interreg 2 Seas ERDF, Triple C	NFM	€358,000	£46,440
Interreg 2 Seas ERDF, Co-Adapt National Trust Porlock Vale Riverlands Project	River Aller Floodplain Reconnection	£150,000	£50,000
Department for Environment Food and Rural Affairs (DEFRA)	Environmental Land Management (ELM) Tests and Trials	£59,000	£60,000

Growth Deal funding

Heart of the South West Local Enterprise Partnership funding 2014-2021

In June 2014 £13.049 million of Heart of the South West Local Enterprise Partnership (LEP) Growth Deal funding was awarded to the Somerset Levels & Moors Flood Action Plan. Somerset Rivers Authority (SRA) was launched in January 2015, the Flood Action Plan was expanded across Somerset, and the SRA inherited the £13.049m Growth Deal funding.





HM Government

Dredging

The Flood Action Plan said that "dredging of the Rivers Parrett and Tone has been identified locally as a key element in reducing future flood risk". After the Environment Agency dredged 5 miles (8km) of the Parrett and Tone in 2014, the SRA used Growth Deal funding to help pay for more pioneer dredging in 2016, 2019 and 2021. LEP Growth Deal funding also paid for an important study from consultants HR Wallingford into *Future Dredging Opportunities in Somerset*. It was this report that prompted the SRA to invest LEP money into trials of water injection dredging.

River Sowy - King's Sedgemoor Drain (KSD)

Sowy-KSD works funded with LEP money have so far included infrastructure improvements at Beer Wall near Othery, Chedzoy Flap near Chedzoy, Egypt's Clyse near Greylake and dozens of sites around Westmoor and Moorlinch Raised Water Level Areas, plus de-silting at Parchey and Dunball.

Bridgwater Tidal Barrier

The Bridgwater Tidal Barrier project is led by the Environment Agency and Sedgemoor District Council. Giving them £2million of LEP Growth Deal money as a contribution towards project costs helped speed up progress to the submission in December 2019 of the Transport and Works Act Order (TWAO) that is required to build the Barrier. A decision on the TWAO is awaited from the Secretary of State at the Department for Environment, Food and Rural Affairs (Defra).

Taunton Strategic Flood Alleviation Improvements Scheme (TSFAIS)

In 2016-17 the SRA used Growth Deal funding to support TSFAIS progress. In four other years, the SRA has made contributions from its Local Partner Funds. The delivery of TSFAIS's first three initial priorities will reduce flood risks for 1414 properties. Longer term, TSFAIS's aim is to create extra protective capacity by combining bigger and better flood defence walls in Taunton with a new area for storing up to 1.8 million cubic metres of water at Bradford on Tone.

River Brue Catchment

The SRA has used LEP Growth Deal money to part-fund the refurbishment of North Drain Pumping Station and a new surface water pumping station in Field Way, Highbridge.

Land Management

The Flood Action Plan stated: "Every farm and every stream has a part to play in water and flood management in Somerset." It was originally envisaged that LEP funding would result in 40 schemes of Natural Flood Management (NFM). In reality, the money delivered 120 schemes, containing many more individual elements countywide, and many different kinds of NFM.

List of places where Natural Flood Management schemes were funded by HotSWLEP

- Aisholt Common, Aller
- Bishop's Lydeard, Bower Hinton, Brompton Ralph, Bruton, Brymore Academy
- Charlton Mackrell, Chilcompton, Chipley, Clayhanger, Combe Sydenham, Compton Durville, Cossington, Croford, Crowcombe, Curry Mallet, Curry Rivel
- Dillington, Dommett, Donyatt
- East Combe, East Nynehead
- Fitzhead
- Goathurst
- Halse, Ham Hill Country Park, Hestercombe, Hinton St George, Hoccombe,
- Houndsmoor, Hurcott
- Langford Heathfield Nature Reserve, Launcherley, Lufton (edge of Yeovil)
- Marcombe Valley, Meare Green, Merriott, Montacute, Milverton
- Nether Stowey, Northway, Norton sub Hamdon, Nynehead
- Oake, Over Compton (edge of Yeovil)
- Pitminster
- Queen Camel
- Roadwater
- Sandford Orcas, Shepton Beauchamp, Staple Fitzpaine, Staplegrove, Stoke St Gregory, South Petherton
- Tinker's Bubble, Tintinhull
- West Buckland, Wigborough, Wiveliscombe

The SRA's Land Management workstream is led by the Farming & Wildlife Advisory Group SouthWest (FWAG SW). Hundreds more activities have followed this initial LEP-backed burst, through initiatives such as the EU-backed Triple C project and the online auctions pioneered by the SRA, FWAG SW, and the Environment Agency. LEP funding gave NFM in Somerset great impetus. Nowhere else in the UK now has such a range, number and sophistication of NFM schemes.

Conclusion

At the end of March 2021, 91% of the HotSWLEP Growth Deal funding of £13.049m that was awarded in 2014 for Somerset Flooding projects had been spent.

The remaining 9% of LEP funding is scheduled to be spent in 2021 on Phase One of the River Sowy-King's Sedgemoor Drain Enhancements Scheme. Permission to carry this funding through into the 2021-22 financial year was granted by the LEP in October 2020 after a variation request was made.

As the LEP's £13.049 million has been combined with £25.7 million from other local and national sources, Somerset has benefitted since 2014 from a total investment of £38.7 million into the flood protection works described above.

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