

Joint Scrutiny Panel of Somerset Rivers Authority

Friday 1 February 2019

10.00 am Sedgemoor Room, Bridgwater House, King Sq. Bridgwater TA6 3AR



To: The Members of the Joint Scrutiny Panel of Somerset Rivers Authority

Cllr Berry, Cllr S Coles, Cllr A Groskop, Cllr John Hunt, Cllr Lisgo, Cllr MacKenzie, Cllr Pearce, Cllr Smedley, Cllr Steele, Cllr Thwaites, D Tratt, Cllr Tucker, D Vigar and Cllr Woods

Issued by Scott Wooldridge, Strategic Manager - Governance and Risk – 23 January 2019

For further information about the meeting, please contact Peter Stiles on 01823 357628 or Email: pstiles@somerset.gov.uk or Lindsey Tawse on 01823 355059 or ltawse@somerset.gov.uk

Guidance about procedures at the meeting follows the printed agenda.

This meeting will be open to the public and press, subject to the passing of any resolution under Section 100A (4) of the Local Government Act 1972.

This agenda and the attached reports and background papers are available on request prior to the meeting in large print, Braille, audio tape & disc and can be translated into different languages. They can also be accessed via the council's website on www.somerset.gov.uk/agendasandpapers



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AGENDA

Item Joint Scrutiny Panel of Somerset Rivers Authority - 10.00 am Friday 1 February 2019

****Public Guidance notes contained in agenda annexe****

1 **Election of Chair and Vice-Chair**

To Elect a Chair and Vice-Chair for a twelve month period

2 **Apologies for absence**

3 **Declarations of Interest**

Details of all Members' interests in District, Town and Parish Councils will be displayed in the meeting room. The Statutory Register of Member's Interests can be inspected via the Community Governance team.

4 **Minutes from the previous meeting held on 21 May 2018** (Pages 7 - 14)

The Committee is asked to confirm the minutes are accurate.

5 **Public Question Time**

The Chairman will allow members of the public to ask a question or make a statement about any matter on the agenda for this meeting. **These questions may be taken during the meeting, when the relevant agenda item is considered, at the Chairman's discretion.**

6 **Key Project Update** (Pages 15 - 26)

To consider the following reports:

6a - Taunton Strategic Flood Alleviation Improvement Scheme

6b - Oath to Burrowbridge Pioneer Dredging

6c – Brue Catchment

6d – River Sowy/King Sedgemoor Drain Enhancement Update

7 **2019_20 Enhanced Programme** (Pages 27 - 38)

To consider the report

8 **Building Local Resilience Update** (Pages 39 - 42)

To consider this report

9 **Flood Action Plan Review and Future Strategy** (Pages 43 - 46)

To consider this report

- Item Joint Scrutiny Panel of Somerset Rivers Authority - 10.00 am Friday 1 February 2019
- 10 **SRA Precepting Body - Update on Progress of Rivers Authorities and Land Drainage Bill** (Pages 47 - 48)
- To consider this report
- 11 **Work Programme and Date of Next Meeting** (Pages 49 - 50)
- To consider the work programme
- 12 **Any other urgent items of business**
- The Chairman may raise any items of urgent business.

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Agenda Annexe

Guidance notes for the meeting

1. Inspection of Papers

Any person wishing to inspect Minutes, reports, or the background papers for any item on the Agenda should contact the Committee Administrator for the meeting – Peter Stiles on Tel 01823 357628 or Email: pstiles@somerset.gov.uk or Lindsey Tawse on Tel: (01823) 355059 or 357628 or Email: ltawse@somerset.gov.uk They can also be accessed via the council's website on www.somerset.gov.uk/agendasandpapers

2. Members' Code of Conduct requirements

When considering the declaration of interests and their actions as a councillor, Members are reminded of the requirements of the Members' Code of Conduct and the underpinning Principles of Public Life: Honesty; Integrity; Selflessness; Objectivity; Accountability; Openness; Leadership. The Code of Conduct can be viewed at: <http://www.somerset.gov.uk/organisation/key-documents/the-councils-constitution/>

3. Minutes of the Meeting

Details of the issues discussed and recommendations made at the meeting will be set out in the Minutes, which the Committee will be asked to approve as a correct record at its next meeting.

4. Public Question Time

If you wish to speak, please tell Peter Stiles the Committee's Administrator - by 5pm, 3 clear working days before the meeting (Monday 28th January 2019). All Public Questions must directly relate to an item on the Committee's agenda and must be submitted in writing by the deadline.

If you require any assistance submitting your question, please contact the Democratic Services Team on 01823 357628

At the Chairman's invitation you may ask questions and/or make statements or comments about any matter on the Committee's agenda – providing you have given the required notice. You may also present a petition on any matter within the Committee's remit. The length of public question time will be no more than 30 minutes in total.

A slot for Public Question Time is set aside near the beginning of the meeting, after the minutes of the previous meeting have been signed. However, questions or statements about any matter on the Agenda for this meeting may be taken at the time when each matter is considered.

You must direct your questions and comments through the Chairman. You may not take direct part in the debate. The Chairman will decide when public participation is to finish.

If there are many people present at the meeting for one particular item, the Chairman may adjourn the meeting to allow views to be expressed more freely. If an item on the Agenda is contentious, with a large number of people attending the meeting, a representative should be nominated to present the views of a group.

An issue will not be deferred just because you cannot be present for the meeting. Remember that the amount of time you speak will be restricted, normally to two minutes only.

5. Exclusion of Press & Public

If when considering an item on the Agenda, the Committee may consider it appropriate to pass a resolution under Section 100A (4) Schedule 12A of the Local Government Act 1972 that the press and public be excluded from the meeting on the basis that if they were present during the business to be transacted there would be a likelihood of disclosure of exempt information, as defined under the terms of the Act.

6. Committee Rooms & Council Chamber and hearing aid users

To assist hearing aid users the following Committee meeting rooms have infra-red audio transmission systems (Luttrell room, Wyndham room, Hobhouse room). To use this facility we need to provide a small personal receiver that will work with a hearing aid set to the T position. Please request a personal receiver from the Committee's Administrator and return it at the end of the meeting.

7. Recording of meetings

The Council supports the principles of openness and transparency. It allows filming, recording and taking photographs at its meetings that are open to the public - providing this is done in a non-disruptive manner. Members of the public may use Facebook and Twitter or other forms of social media to report on proceedings and a designated area will be provided for anyone wishing to film part or all of the proceedings. No filming or recording may take place when the press and public are excluded for that part of the meeting. As a matter of courtesy to the public, anyone wishing to film or record proceedings is asked to provide reasonable notice to the Committee Administrator so that the relevant Chairman can inform those present at the start of the meeting.

We would ask that, as far as possible, members of the public aren't filmed unless they are playing an active role such as speaking within a meeting and there may be occasions when speaking members of the public request not to be filmed.

The Council will be undertaking audio recording of some of its meetings in County Hall as part of its investigation into a business case for the recording and potential webcasting of meetings in the future.

A copy of the Council's Recording of Meetings Protocol should be on display at the meeting for inspection, alternatively contact the Committee Administrator for the meeting in advance.

Joint Scrutiny Panel of Somerset Rivers Authority (SRA)

Minutes of a meeting of the Joint Scrutiny Panel of SRA held on Monday
21 May 2018 at 2pm in the Wyndham Room, County Hall, Taunton.

Present

Cllr Eve Berry
Cllr Roy Mackenzie
Cllr Simon Coles (Vice-Chair)
Cllr Libby Lisgo
Cllr Kathy Pearce

Cllr Sue Steele
Cllr Rosemay Woods
Julian Taylor (Chairman)
David Tratt

Other Members present: Cllr David Hall and Cllr Tessa Munt

31 **Apologies for Absence:** Cllr Brenda Maitland-Walker, Cllr Phillip Ham, Cllr Alan Wedderkopp, Cllr Gerard Tucker, and Cllr Brian Smedley.

32 **Declarations of Interest** – agenda item 2
Julian Taylor declared the following personal interests: resides in an area affected by flooding; nominated member of Parrett IDB.

33 **Minutes of the last meeting** – agenda item 3

The minutes of the meeting on 5 February 2018 were accepted as being accurate by the Committee.

It was agreed that the recommendation for the SRA Board to advise each district to set up its own district flood group referred to in minute 26 should be put on the next agenda to confirm.

34 **Public question time** – agenda item 4

There were no public questions.

35 **Minutes of 7 March 2018 SRA Board meeting** – agenda item 5

The SRA Senior Manager updated the meeting regarding the last meeting of the Board of the Somerset Rivers Authority which took place on 7 March 2018. He explained that around £2.8m of local partner funding had been confirmed for 2018-19, the Board had approved the 2018-19 SRA Enhanced Programme, minor amendments were made to the memorandum of understanding, work was still progressing with precepting legislation and would be discussed later in the agenda.

The Panel noted the minutes.

Key Project Updates - agenda item 6**a) Taunton Strategic Flood Alleviation Improvements Scheme**

The panel received a report detailing the progress made on the Taunton Strategic Flood Alleviation Scheme for Phase 2.

Taunton Deane Borough Council and the Environment Agency are working together to provide a long-term strategic solution to reduce flood risk to Taunton. The risk comes from the River Tone and 3 other tributaries that flow into the town centre. It is recognised that the risk to the town will get worse as climate change is predicted to increase maximum flood flows over time.

The Panel was informed that surveys, ground investigations, initial engagement with landowners, computer modelling, initial environmental surveys and concept designs to consider the potential components of the strategy had been completed. This had shown that major engineering work that would be required both in the town and in the flood storage area upstream to provide the desired level of protection for the next 100 years or so. The cost for both of these would be around £50m. A number of funding sources would be required for any long-term strategy. Achieving other non-flood risk benefits could be the key to unlocking other sources of funding.

Further points discussed included:

- The long-term strategy was likely to comprise a number of measures rather than a single solution
- A pragmatic approach to funding was likely to be most appropriate – individual schemes to be brought forward incrementally as part of the long-term project.
- A draft strategic plan should be ready for consultation by the end of 2018 identifying the most cost-effective components of work and the likely timetable
- Housing development applications and the associated flooding risks – each application had to be judged on its merits
- It was felt there should be better communication about the proposed schemes as there was often a perception of problems
- The villages of Isle Abotts and Isle Brewers being cut off when flooding in that area happens – the Environment Agency were aware of the situation and were looking into this further.

It was agreed that the SRA would give consideration to communication methods that could be used to address misconceptions.

It was also agreed there would be a further update from the Environment Agency. It would be useful for this to include the relevant related schemes.

The report was noted.

b) Sowy/King Sedgemoor Drain Enhancement Scheme Update

Members were updated on the latest position regarding the Sowy/King Sedgemoor Drain scheme. Cost estimates for this scheme early in the year had significantly increased from £8m to £15m which had raised questions about affordability. Any significant delay could put at risk the Local Enterprise Partnership funding for the scheme of approximately £3.8m as the deadline for scheme delivery was March 2021.

The Environment Agency (EA) had identified work that could be carried out in the near future involving removal of another concrete obstruction near Dunball sluice and desilting around Parchey and Dunball Bridges. Works are due to start in Autumn 2018.

A review of the estimate for whole project was completed with the contractor but it remained unchanged at £12-£15m. The EA is working with the contractor to develop an alternative approach to delivery that would reduce or eliminate the need for transporting excavated material and therefore the need for access tracks (which are major components of the previous estimate).

Detailed modelling of the Oath to Burrowbridge dredge options is being carried out which will inform the final scheme proposal and the strategic approach to mitigation. The Internal Drainage Board is concurrently progressing the planned dredge which is reported separately.

The SRA board is meeting in June and there should be a range of options coming to that meeting.

Further discussion included:

- Looking at the feasibility of using a jetting strategy as opposed to dredging – this was not being investigated currently as the focus was on traditional methods and looking at ways of reducing costs.
- Whether local landowners were happy with the approach of keeping silt. It was felt in the main they were.
- Impact of diverting water coming down the River Tone would have critical outcomes for Taunton and Bridgwater.
- It was felt that following decisions at the Board meeting that the EA could move forward and would be able to report on progress at the next meeting.

The Scrutiny Panel agreed to:

- 1. Note the latest position with regards the development of the Sowy / KSD scheme**
- 2. Endorse the proposal to identify an approach to delivering increased conveyance on the Sowy/KSD that is affordable and deliverable within the funding constraints and time available, but that ultimately builds towards a comprehensive improvement scheme.**

- 3. Support the combined efforts of Environment Agency, Internal Drainage Boards and Natural England in identifying a package of works that delivers the desired benefits within the timeframe and funding of the LEP.**

c) Brue update

A Brue Plan workshop was held in early 2018 to investigate the potential for a more holistic and proactive approach to managing flooding in the Brue catchment and enable progress with projects.

The first phase on trees works was completed in February. It was agreed there should be a phased approach to the works over successive years avoiding full tree removal.

The next step is to develop a clearer understanding of what is needed in the catchment. Further work is needed to summarise the risks faced, identify the constraints and opportunities for successful SRA support. Following this there would be consultation with the wider group of stakeholders.

Further discussion about this included:

- This was a more difficult area to get progress on as the focus was mainly on the Parratt and there was less knowledge or desire to move forward with Brue projects.
- Further work with engaging with wider audiences was being undertaken with a further workshop planned
- Residents in Mendip had raised concerns with the district councillor regarding desilting and this was being investigated to see if this was viable and cost effective.
- The need to ensure that all work taking place via different groups would be reported back to the panel.
- Problems with Bleadon sluice and who is responsible for it as it is having an impact on other structures in Somerset. The EA had been asked for an update on this and it was agreed there would be another push to get this.

The panel agreed the recommendations for approval by the SRA Board to:

- 1. Note the ongoing work to develop a Brue Plan, aimed at taking a proactive approach to flood management in the Brue catchment and helping to progress SRA projects.**
- 2. Recognise the need for further data gathering and analysis to identify the main risks, issues and opportunities for flood management in the catchment.**
- 3. Note the continued intention to develop the Brue hydraulic model (previously approved.)**

4. Approve continued work to prepare for and organise a Brue Plan workshop in summer 2018

37 Draft SRA End of Year Report 2017-18 - agenda item 7

The End of Year Report 2017-18 gives a detailed account and analysis of the SRA's performance during 2017-18. It covers actions in the Enhanced Programme and gives an analysis based on SRA workstreams to help with understanding the finances. More information is included regarding rivers, watercourses and catchments associated with the locations of different works and there is new part included this time outlining progress against key targets of Somerset's 20 Year Flood Action Plan.

There were plans to further develop the website and to do more with social media and sending more press releases.

Further discussion about this included:

- Clarification on the work of the enforcement officer and whether local communities could take on further responsibilities to assist in this area
- Ensure there is a good communication link with the parish councils
- Members of the public did not understand the complexity of the work involved and this needed to be conveyed better through the media
- It would be useful to have the report focused on geographical areas to make it easier to read and more relevant to communities
- It was hoped there could be a wider distribution of the report in future.

The Panel noted the report.

38 SRA Precepting Body – Update on the progress of the Rivers Authorities and Land Drainage Bill – agenda item 9

It was agreed to bring this item forward and discuss the finance report as the last item as there was exempt information contained in the appendix.

The Panel was informed that David Warburton MP had presented the Rivers Authorities and Land Drainage Bill to Parliament on the 5th March for the first reading but the Bill had been unsuccessful at the 2nd reading stage on two occasions. Each time the Bill had not been debated as it was one of many bills due for consideration each day. The Bill had been resubmitted for its 2nd reading on 5th June. It was recommended that all possible steps should be taken to avoid the Bill being objected to on principle.

Members were concerned to hear an objection had been raised to the Bill and felt a letter should be written to the MP concerned outlining the importance of this.

The Panel agreed to:

1. **Note the report.**
2. **Delegate to the Chair, Vice Chair, and SRA Manager to write letters to the MP who objected to the Bill and also to other local MPs that it was felt could be helpful with the process and explain the importance of getting the Bill passed and ask for their support.**

39 **Finance report Q4 2017-18 - agenda item 8**

The Panel agreed to pass a resolution under Regulation 4 of the Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012 to exclude the press and public from the meeting on the basis that if they were present during the business to be transacted there would be a likelihood of disclosure of exempt information, within the meaning of Schedule 12A to the Local Government Act 1972.

The Panel received a report updating on the SRA's financial position as of the end of Quarter 4 2017-18. This had been revised to provide greater clarity on spending with a combined set of figures for all years showing total budget available at the start of the period, compared to what was spent and what was committed to be spent within that period. Spend on projects funded by Growth Deal Funding was reported on a separate line.

The total spend for 2017-18 was £3.6m. Further details of the breakdown was shown in Table A of the report. There was also further information regarding the financial performance committed spend and re-allocation of the remaining budget.

Members felt that a presentation in future would be useful to provide more clarity for them. If funding could be achieved through precepting in future this would enable the SRA to plan for the longer term and have greater certainty.

The Panel agreed with the recommendations to the Board to:

1. **Note the financial performance as at the end of Quarter 4 of 2017-18.**
2. **Approve the re-allocation of £39,384.81 remaining budget from completed actions to contingency**

40 **Date of next SRA Scrutiny Panel Meeting - agenda item 10**

It was agreed that the next SRA Scrutiny Panel meeting would be on Friday 1st February 2019.

41 **Any other business of urgency - agenda item 11**

There was a query regarding the progress of culvert orphan scheme to identify who was responsible for what culverts. The Internal Drainage Board was running a project on this and it was hoped this could be reported on in the future.

(The meeting closed at 4.13pm)

Chair
SRA Joint Scrutiny Panel

Draft

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ITEM 6a**Somerset Rivers Authority Joint Scrutiny Committee Paper****Title: Taunton Strategic Flood Alleviations Improvements Scheme (TSFAIS) Project- Update.****Recommendation:**

The SRA Joint Scrutiny Committee is asked to:

1. Consider and comment on the contents of the report and progress made on the Taunton Strategic Flood Alleviation Scheme for Phase 2

Purpose of the item:

To update the Committee on the progress with Phase 2 of the Taunton Strategic Flood Alleviation Scheme (TSFAS).

Background and context

Taunton Deane Borough Council and the Environment Agency are working together to provide a long-term strategic solution to reducing flood risk to Taunton and where possible to the wider catchment. It is recognised that the risk to the town will get worse as climate change is predicted to increase maximum flood flows over time. The risk comes not just from the River Tone, but also from 3 other tributaries that flow into the town centre.

The strategic solution is required to protect existing property in the town and to allow the town to develop safely.

Previous studies including Phase 1 of the TSFAIS have pointed towards the need for a combination of (i) improved flood defence walls in the town and (ii) an area for storing flood water upstream, to provide capacity for the long term (100 years). This work initially formed the basis of Phase 2 of the TSFAIS.

Latest status**Potential Technical Solutions**

In August 2018 an update to the Board advised that work completed on Phase 2 has included surveys, ground investigations, initial engagement with landowners, computer modelling, initial environmental surveys and concept designs to consider these potential components of the strategy. To deliver these outcomes, the total cost to date on the \$kekjnhb.doc

project has been £797k (Phase 1 and Phase 2) with TDBC contributing £522k and the SRA contributing £275k. This work has shown the major engineering work that would be required, both in the town and in the flood storage area upstream, to provide the desired level of protection for the next 100 years. If these two major components of flood defence were constructed at the same time the current capital cost would be in the order of £50M. A new flood storage area and its dam would also require a new ongoing maintenance commitment. It is recognised that the capital cost of this overall strategic scheme is unlikely to be found in the short term despite TDBC committing £6M of its own funding towards the TSFAS and external funding bids being made.

The work already completed for Phase 2 identified a number of local intervention options that could provide a useful increase in flood capacity pending the longer term delivery of the larger flood risk reductions flood water storage upstream and increasing flood defence walls in the town. In July 2018 TDBC and the EA agreed a revised scope with the supplier for taking forward a Project Delivery Plan to include these local intervention options.

The Project Delivery Plan scope lists the following options we are considering:

1. Bradford on Tone Storage Area
2. Raised or new flood defences in Taunton Town Centre
3. Vivary Park, Sherford Stream Improvements
4. Raising bridges on Mill Stream by Castle Street
5. Mill Stream flow diversions by French Weir
6. Optimisation of Long Run meadow storage, upstream of French Weir
7. Conveyance improvements on Galmington Stream (particularly consideration of culverts) near Parkfield Drive.
8. Bathpool options
 - a) Closing Canal Route at Firepool
 - b) Railway Culverts between Obridge and Bathpool
 - c) Flood Relief Channel at Bathpool parallel to Hyde Lane area
 - d) Over pumping at Old River Tone Outfall by Bathpool Bridge
 - e) Old River Tone Flap Valve Bund by Bathpool Bridge

The intention is that these local interventions will be complimentary to the larger strategic scheme (upstream storage and flood walls) and are 'quick wins' which can be delivered in the short term to buy the town additional years protection whilst work continues on the longer term strategy and funding is hopefully secured for its delivery.

These local intervention options are currently being investigated and results will be known in the next few months. A 2019/20 SRA grant funding request has been applied for to assist with the detailed design of the local interventions.

The Strategic Plan

This revised project scope will produce a plan that will describe a range of interventions and components that together will provide a long term flood risk management solution for Taunton. The plan will include such things as:

- Likely order of delivery of the components
- Likely timing of delivery or “triggers” for delivery (short medium or long term)
- The benefits of the components, individually and together
- Estimated costs and possible funding sources
- Potential alignment with other programmes/development
- Authority best placed to deliver each component

We aim to have a Strategic Plan ready for targeted consultation with key stakeholders shortly to help us inform the optimum combination of the components, which will then be finalised.

A key part of the work will be to seek to produce solutions that manage any impact upon third party land.

Recommendation:

The SRA Joint Scrutiny Committee is asked to:

1. Consider and comment on the contents of the report and progress made on the Taunton Strategic Flood Alleviation Scheme for Phase 2

Date: 1 February 2019

Author: Tim Burton, Assistant Director Planning and Environment, Taunton Deane Borough Council

Support: Graham Quarrier, Project Executive, Taunton Flood Project, Environment Agency

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ITEM 6b

Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: Oath to Burrowbridge Pioneer Dredging

Recommendation:

- The Joint Scrutiny Panel is asked to consider and comment on the latest position in progress towards the delivery of a full Oath to Burrowbridge pioneer dredging scheme, aiming to dredge in autumn 2019.

Purpose of the item:

To provide a progress update on the delivery of a full Oath to Burrowbridge pioneer dredge.

Background and context

Oath to Burrowbridge project work commenced in late 2017. It has so far included design, bathymetric and topographic surveys, numerical modelling and the production of environmental surveys and reports.

Design cross-sections have been produced that sensibly maximise the additional flow achievable in the River Parrett, within physical, environmental and budgetary constraints. Hydraulic model results show improved flood flow conveyance achieving similar hydraulic benefits to the Environment Agency's earlier, less detailed modelling. To achieve the greatest hydraulic impact, work should be focused between Stathe and Burrowbridge.

Overall, results indicate that flood risk will be reduced to 65km² of land in the Parrett Catchment, and an additional 200 properties currently at direct risk of flooding.

Latest status (Summary)

It was not possible to deliver this project in autumn 2018. This was because the project team had not been able to finalise a proposal which it was confident would be accepted as legally compliant by regulatory bodies, and supported by all SRA partners.

This issue is further discussed below.

Assessment of Environmental Impacts

Comprehensive assessment of the existing environment and the likely impacts of the scheme has been completed, but due to the uncertainties regarding the acceptability of

the scheme through discussions with SRA partners and Regulators, we have not yet been able to conclude the Environmental Impact Assessment and Statement.

The scope of the project was considered by the SRA Board in December 2018.

Flood Risk

Computer hydraulic modelling of the proposed design has indicated reduced flood risks to 65km² of land in the catchment of the River Parrett and to an additional 200 properties currently at direct risk of flooding.

One result of dredging between Oath and Burrowbridge may be some minor increase in flood water on Curry Moor and North Moor. However, no properties are predicted to flood in North Moor as a result of this scheme, nor would any more properties in Curry Moor flood. Moreover, because of other 20 Year Flood Action Plan schemes carried out since the 2013/14 flood, the overall situation on Curry Moor and North Moor remains considerably improved, compared with how it was before the 2013-14 flood.

Modelling has also shown that – in a more typical flood event such as the one in Spring 2012 – there will be no impact on North Moor from this scheme, and no flooding would occur in Curry Moor (to properties or to New Road).

It was right for the 20 Year Flood Action Plan to focus initially on the areas it did. It is now right to retain acceptable standards of flood risk and look at also improving matters elsewhere.

On this basis, the SRA Board was asked to approve the delivery of a full Oath to Burrowbridge pioneer dredging scheme, aiming to dredge in autumn 2019.

Mitigation and Future Work

Previously, it was considered that the effects of implementing a full Sowy/KSD scheme could wholly offset the relatively small reduced benefits to North Moor and Curry Moor of dredging between Oath to Burrowbridge. They are now partially offset by the current scope of the Sowy/KSD scheme, but the SRA has committed itself to providing funds for more Sowy/KSD works in future which would provide further improvements to Curry Moor and North Moor.

The Environment Agency has agreed to provide additional pumping capacity before the start of dredging between Oath and Burrowbridge and until the delivery of more SRA projects that produce further benefits to North Moor and Curry Moor.

Other works promoted by the SRA through Somerset's 20 Year Flood Action Plan to provide wider flood risk benefits, that could offset the impact of the Oath to Burrowbridge dredge on Curry Moor and North Moor, include:

- Further dredging between North Moor and the M5

- Construction of Bridgwater Tidal Barrier
- Improvements to the River Tone between Hook Bridge and Ham

Delivery dates for these schemes would be after the Oath to Burrowbridge pioneer dredge is complete.

Programme and Risks

The next stage of the project will be to prepare the Environmental Impact Assessment and undertake consultation with stakeholders and local communities affected by the works.

Partners will work together to agree satisfactory details for Water Level Management Plans which should protect the existing environmental conditions and designations in the areas affected by the dredging.

The project team considers that the Oath to Burrowbridge scheme can be delivered within the necessary timescales (ie, by Spring 2021) for spending Growth Deal money from the Heart of the SW Local Enterprise Partnership. With the full backing of the SRA Board and timely, satisfactory conclusion of the Environmental Impact Assessment and Statement, dredging work would be able to commence in autumn 2019.

At the December 2018 SRA Board Meeting the following recommendations were approved.

- Approved the delivery of a full Oath to Burrowbridge pioneer dredging scheme, aiming to dredge in autumn 2019.
- The SRA Board agreed in principle that the SRA would fund temporary additional Environment Agency pumping required to support this scheme (subject to more information on costs).
- The SRA Board agreed that the flood risk baseline used for assessing the impacts of this scheme should be that pertaining before the 2013-14 floods.

Recommendation:

- **The Joint Scrutiny Panel is asked to consider and comment on the latest position in progress towards the delivery of a full Oath to Burrowbridge pioneer dredging scheme, aiming to dredge in autumn 2019.**

Iain Sturdy

Somerset Drainage Boards Consortium

4th December 2018

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Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: Brue catchment update

RECOMMENDATION

The SRA Joint Scrutiny Panel is asked to consider and comment on the latest position with projects in the Brue catchment. In particular the Panel is asked to consider the fact that a different approach will be required to deliver projects in the Brue.

Purpose of the item

This paper is a progress update on SRA funded proposals for work on the River Brue and in the Brue catchment. The paper summarises the latest position and some of the challenges experienced in moving the project forward.

Background and context

In financial year 2015/16 using funding provided by the Heart of the South West Local Enterprise Partnership (HotSWLEP) the SRA Board agreed to allocate £500,000 towards capital works that would optimise the capacity of the River Brue. The proposed works included updating the hydraulic model of the Brue, tree removal works, river bank improvements and desilting between Westhay and North Drain Pumping Station. HotSWLEP have a central government mandated deadline for of March 2021 for use of their funds.

An SRA Board Paper was submitted in December 2017 to bring attention to the difficulties experienced delivering SRA work in the Brue catchment. The difficulties were as a result of the need to work within strict environmental and regulatory constraints combined with a lack of consensus on the flood risk benefit of the proposals.

Some work on updating and enhancing the Brue hydraulic model has been completed but further development will be required. To date the only physical works it has been possible to undertake is a proportion of the tree works which were completed in February 2018.

In an effort to overcome these challenges the SRA Board requested that a 'Brue Plan' workshop should be held in early 2018 to investigate the potential for a more holistic catchment wide approach to managing flooding in the Brue catchment. The aim would be to ensure flooding issues are addressed and projects with multiple benefits are promoted.

The meeting was held on Wednesday 14 March. The meeting considered the flooding issues facing the Brue catchment to identify opportunities, constraints and knowledge

gaps. It was clear from the meeting that there is strong support for the development of a holistic Brue Plan that provides a framework for future SRA projects in the catchment but still a lack of consensus on the need for dredging.

Latest Status

The Brue projects have been led by the Axe Brue Internal Drainage Board (IDB) on behalf of the SRA. The IDB intended to carry out works under a public sector cooperation agreement as the River Brue is a 'main river' and as such the Environment Agency must permit any works that are proposed. The funding was originally secured from the Heart of the South West LEP it was assumed that the main focus of works would be on dredging in the Brue. The IDB agreed to lead the project as dredging sits comfortably within their organisation's area of expertise. For the reasons set out above it became clear that a broader package of works would be required which needs the expertise of a range of delivery partners.

In December 2018 the IDB took the decision to step back from leading the project as it was felt that it was unlikely that a scheme to dredge the Brue between Westhay and North Drain Pumping Station would be able to secure the necessary approvals in time to meet the funding deadline of March 2021. Other activities that had been identified such as potential projects in the upper catchment are beyond the IDB boundary and different to the types of work the IDB would usually commission or deliver.

Next steps

The SRA Senior Manager will work with SRA partners and stakeholders to seek a consensus on the best options for making use of the capital funds currently allocated towards the Brue catchment.

The SRA Board will be updated at the March Board Meeting on a proposed way forward.

Risk

Should it not be possible to identify a capital scheme, or schemes, which can be delivered in the time available it may be necessary to ask the SRA Board to reallocate the funding to another suitable project.

Recommendation

The SRA Joint Scrutiny Panel is asked to consider and comment on the latest position with projects in the Brue catchment. In particular the Panel is asked to consider the fact that at a different approach will be required to deliver projects in the Brue.

Date: January 18th 2019

Authors: David Mitchell, Senior Manager, Somerset Rivers Authority

Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: River Sowy / King Sedgemoor Drain Enhancement Scheme Update

RECOMMENDATION

The Scrutiny Panel is asked to:

1. Consider and comment on the latest position with regards the development of the Sowy / KSD scheme
2. Support the combined efforts of Environment Agency, Internal Drainage Boards and Natural England in identifying a package of works that delivers the desired benefits within the timeframe and funding of the LEP.

Purpose of the item

To update the Scrutiny Panel on the latest position with regards the River Sowy / King Sedgemoor Drain (KSD) scheme.

Background and context

At the SRA Board meeting on the 7th December 2018 progress with the Sowy / KSD scheme was discussed. The Board noted and supported the development of design for further enhancement of the Sowy-KSD system.

The Board had previously agreed that works to enhance the Sowy and Kings Sedgemoor Drain should continue with an incremental approach. We have previously completed works on the A392 Beer Wall culverts and channels, and refurbished Chedzoy Sluice

Scheme Progress

1. Desilting at Parchey Bridge and Dunball Railway Bridge was completed between October and November 2018. The contractors also removed old builders' rubble from the Parchey river bed. A notable success was getting Network Rail to clear the bridge arch under their rail bridge. This avoided the need for the SRA to take on the legal liability for any possible damage to the bridge during clearance operations.
2. Works upstream of the Dunball A38 road bridge are being scoped for delivery later this year. This will involve the "smoothing" of the channel where an old wall which formed part of the old tidal sluice protrudes into the channel itself. Previously Somerset County Highways removed a "lump of concrete" in the immediate vicinity.

3. Designers are actively engaged on further developing the first stage scheme for the main channel improvements on the Sowy and KSD. As previously reported, these works will comprise:
 - Repair or improvement to around 5 small water level control structures at key locations in the moors to prevent moors “drying out”.
 - Restoring low spots in banks on the KSD using material excavated from the KSD, varying the channel shape to improve ecological diversity at the same time. This will include some repairs and improvements to small outfalls in this reach.
 - Restore low spots on Sowy banks upstream of the A392 Beer Wall, winning material from the Sowy channel.
 - Widen lower Sowy (1-2m) to obtain material to raise or create banks on the lower Sowy. Length of channel covered will be flexible to match funding.

Outline designs have been produced to demonstrate further enhancement works on the Sowy and Kings Sedgemoor Drain. Works are expected to start later this year.

Current status

The EA and IDB are continuing to work closely to identify an affordable and legally compliant scheme that fits with the funding constraints and which can be delivered in stages if necessary to match available funding.

RECOMMENDATION

The Scrutiny Panel is asked to:

1. Consider and comment on the latest position with regards the development of the River Sowy / KSD scheme
2. Support the combined efforts of Environment Agency, Internal Drainage Boards and Natural England in identifying a package of works that delivers the desired benefits within the timeframe and funding of the LEP.

Date: 22nd January 2019

Authors: John Rowlands (EA), David Mitchell (Somerset Rivers Authority)

Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: 2019-20 Enhanced Programme

Recommendation: The SRA Joint Scrutiny Panel is asked to review the draft 2019/20 SRA Enhanced Programme of works and provide comment and recommendations in advance of the programme being finalised in March 2019.

In December 2018 the SRA Board recommended:

1. Provisionally approve the proposed 2019-20 Enhanced Programme as listed subject to final approval when funding is confirmed.
2. Approve the proposed level of funding - £1.057m to be set aside from the 2019-20 shadow precept to enable delivery of the agreed Sowby/Kings Sedgemoor Drain (KSD) Enhancement Scheme in 2019/20 and 2020/21.
3. Approve allocation of £65,000 from contingency to meet the Sowby KSD public match funding requirement in the 2015 Heart of the SW Local Enterprise Partnership (HotSWLEP) Funding Agreement

Purpose of the item:

To provide the Joint Scrutiny Panel with the opportunity to review the draft 2019/20 SRA Enhanced Programme of works and provide comment and recommendations in advance of the programme being finalised in March 2019.

2019-20 Enhanced Programme – background and context

This is the second year using the current format for requesting and assessing proposals for inclusion in the Enhanced Programme (EP). During its first year of application certain issues were identified by the SRA Technical Group for improvement. During early 2018/19 the SRA team worked with workstream leads to address these issues and make the process clearer and more robust. There were no changes to the fundamentals of the process e.g. all proposals continue to be scored against the Flood Action Plan objectives and the previously agreed SRA policies. The process continues to allow for manual adjustment for workstream and geographic balance should it be required.

2018-19 Enhanced Programme – latest status

33 proposals were submitted by SRA Delivery Partners which had a total value of £2.007m. All proposals were scored, and a prioritised list created. The SRA Technical Group then reviewed the prioritised list at their meeting on October 24th 2018. Following a rigorous review, it was agreed that 5 proposals should not be taken forward. A brief explanation on why these schemes are not being taken forward at this time is provided in Appendix 2. In addition, the group agreed to reduce the funding originally requested to some proposals by 10% to enable more schemes to be included in the programme.

In total 28 schemes are now being put forward for funding from the 2019/20 Shadow Precept. The total value of these schemes is approximately £1.702m.

There was no specific adjustment made for workstream or geographic balance.

Geographic spread is reasonably balanced when number of schemes in each District is considered but looks imbalanced based upon spend.

The majority of scheme proposals received have been funded and the few that were unsuccessful come from workstreams that are well represented.

The additional funds proposed to be set aside for the Sowey / KSD public match funding contribution does give the effect of skewing the balance across workstreams, geographic area and spend as it is such a significant % of the overall funds. It is important to note that this is a one-off allocation required to deliver a key project.

Workstream 5 has received a small allocation but this reflects the fact that there are sufficient funds remaining from previous allocations to fund the planned work in 2019/20.

No additional funds are allocated to maintenance dredging as there are sufficient funds already allocated from previous years to continue this next year.

West Somerset receives a relatively small % of the overall funding but this should be considered against the fact that it has received significant allocations in previous years. All proposals received from West Somerset for 2019/20 have been funded.

Five proposals are for feasibility studies which should result in well-developed schemes being brought forward in future years. These are LLFA17, Cheddar Study; LHA117, A38 Blackbird Bends; FWLM02, Yeovil Urban Suds; LHA121, Wetland Biomass Study; and, LAMDC05, Knapp Hill Catchment. The total value of these schemes is £159k.

The draft proposed Enhanced Programme was reviewed by Management Group at their meeting on November 16th and is now submitted to the Board for approval, subject to funding being confirmed in March 2019.

Appendix 1 summarises the proposed Programme by FAP Work stream and shows the approximate spend by district and countywide. Chart 3 shows the number of schemes proposed for each district. It should be noted that in many occasions physical works in one district will benefit other districts. Confidential Appendix 2 shows the list of all proposals submitted in prioritised order with costs. The cut-off point is below LAMDC05, Knapp Hill Catchment Feasibility Study.

Future funding requirements - background and context

At the February 8th 2017 Board meeting, a paper was presented recommending a funding plan to cover the Sowey/KSD Enhancements funding shortfall. With the uncertainty at the time over the deliverability of both the Sowey/KSD Enhancement Scheme and further Pioneer Dredging, it

was felt that it would be better to review the situation again, once there was a better cost estimate for the Sowy/KSD and a clearer idea of how much would be required and when.

In January 2018 the Board received an update advising that following further investigation the likely cost to deliver the scheme as originally planned would significantly exceed the available funds. This, allied to the fact that there is a deadline for when (HotSWLEP) funds must be spent, resulted in a decision being taken at the March 2018 Board to task the EA with scoping and delivering a Sowy / KSD scheme which delivered maximum benefit with the funds available by the HotSWLEP March 2021 funding deadline.

At the March 2018 Board meeting it was agreed to set aside further funds towards the Sowy/KSD. As a result, since 2017/18 the Board has agreed the following:

- approved setting aside £200k of contingency and £150k from the 2017-18 shadow precept for the Sowy/KSD scheme
- set aside a further £450k from the shadow precept towards Sowy/KSD in 2018/19
- £143k previously set aside for Sowy / KSD and or Pioneer Dredging has now been allocated towards the Sowy / KSD

To date the SRA has set aside £943k towards the Sowy / KSD scheme.

Total HotSWLEP funds remaining and SRA set aside funds currently available for the Sowy / KSD scheme, as at the end of Q2 18-19, totals approximately **£4.245m**.

Future funding requirements – latest status

The EA has been progressing the revised Sowy / KSD scheme (see Item 9D). Under the current programme the EA is likely to go out to tender in 2019/20 to deliver an initial phase of works with additional works planned for 2020/21.

As part of the legal agreement with the HotSWLEP, match funding commitments were made. Specifically, in relation to the channel widening element of the Sowy / KSD scheme, a commitment of £2.15m was made. £150k of this is to be provided by the EA. Once the £943k of funds already set aside is taken account of this leaves a balance of £1.057m to be funded.

It is proposed that this £1.057m is allocated from the 2019/20 shadow precept towards the Sowy/KSD scheme. The rationale for this proposal is:

1. This is a key project identified within the Flood Action Plan
2. It is unlikely that any other source of match funding will be identified
3. To provide certainty of available funding to the project team to enable efficient planning and tendering
4. Due to the total value of other grant proposals received this year it is possible to fund the majority of these requests whilst also meeting this match funding requirement
5. Should an opportunity arise to bring elements of the project forward the funding is in place to do so

If the recommendation is approved the total budget available for the Sowy / KSD would be approximately **£5.302m**.

Summary

To determine the funds available for the 19-20 budget, assumptions were made regarding next year's shadow precept at £2.920m¹. SRA staff and overheads, Natural England advice, and software license costs² total £226k. The value of the proposed Enhanced Programme for next year is £1.702m, the public match funding requirement for the Sowy/KSD within the HotSWLEP Funding Agreement is £1.057m which totals **£2.985m**.

This results in a shortfall of £0.065m against the estimated 2019/20 Shadow Precept. It is proposed to address this shortfall using SRA contingency funds. The rationale for this is

1. The SRA currently has approximately £122k in contingency which is sufficient to cover this decision.
2. Reporting to date shows that some previously funded schemes will come in under their original cost estimate further adding to the available contingency.
3. Evidence in recent years is that not all schemes can proceed as originally proposed so a small amount of 'over programming' will support more delivery

RECOMMENDATION

The SRA Joint Scrutiny Panel is asked to review the draft 2019/20 SRA Enhanced Programme of works and provide comment and recommendations in advance of the programme being finalised in March 2019.

Date: 7th January 2019

Author: David Mitchell, Senior Manager Somerset Rivers Authority

Appendices

Appendix 1: Summary of the proposed 2019-20 Enhanced Programme.

Appendix 2: Confidential – 2019-20 Enhanced Programme List –with costs

Appendix 2a: 2019-20 Enhanced Programme List – Public version – no costs

Appendix 3: 2019-20 Enhanced Programme MAP

¹ 2018/19 precept value with a 1.4% uplift

² Ongoing commitment associated with previously approved SRA project

Item 7: Appendix 1
Summary of 2019-20 Enhanced Programme inc. proposed budget

By Type of Work - Work Stream	Total
W1a Dredging and River Management (large)	£1,372,000*
W1b Dredging and River Management (small)	£331,500
W2 Land Management	£292,500
W3 Urban Water Management	£87,000
W4 Resilient Infrastructure	£589,000
W5 Building local resilience	£87,670
Staff and overheads	£210,000
Natural England Advice, Software License	£16,000
Total	£2,985,670
* Inc £1.057m - Sowy match funding commitment	
Estimated 2019-20 Precept	£2,920,179

SRA Programmes funded by Council Tax and Internal Drainage Boards

Summary of actions and proposals	
Total number of actions included in the programme	28
Total value of actions included in the programme	£2,759,670
Total number of enabling actions	15
Total value of enabling actions	£751,170
Total proposals submitted	33
Total proposals withdrawn	5
Total proposals ranked	33
Total value of proposals ranked	£2,010,670

Chart 1

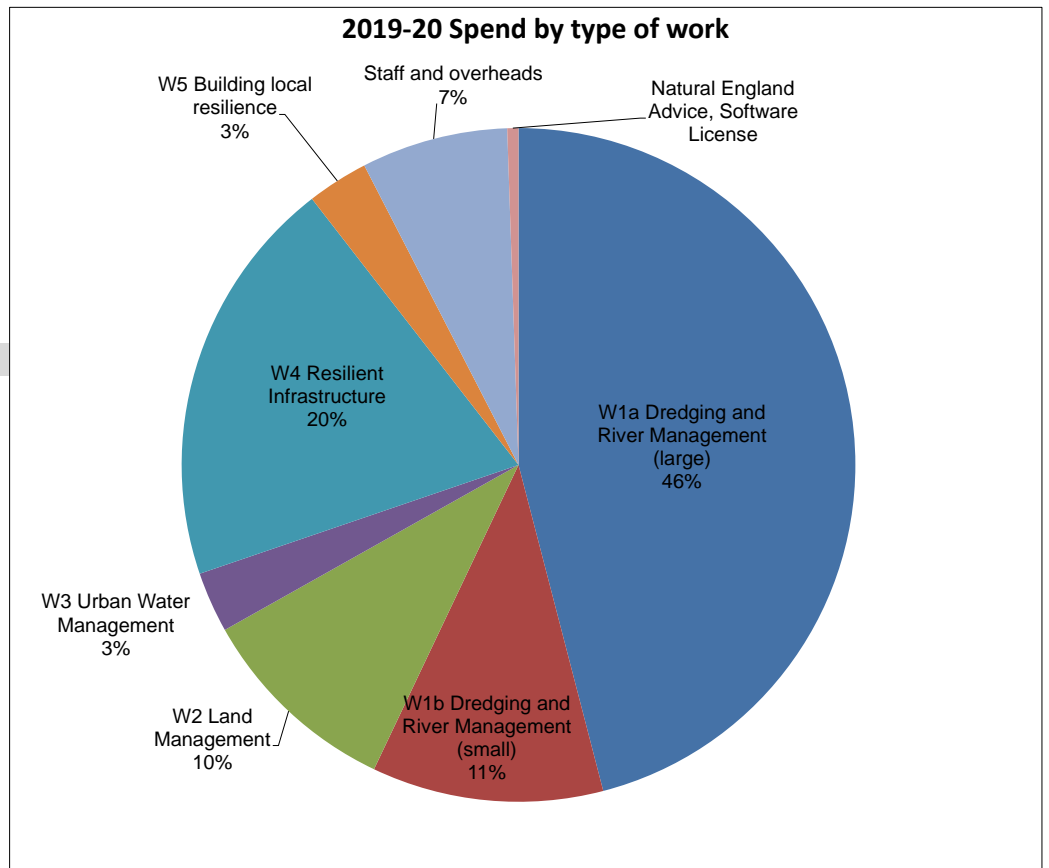


Chart 2

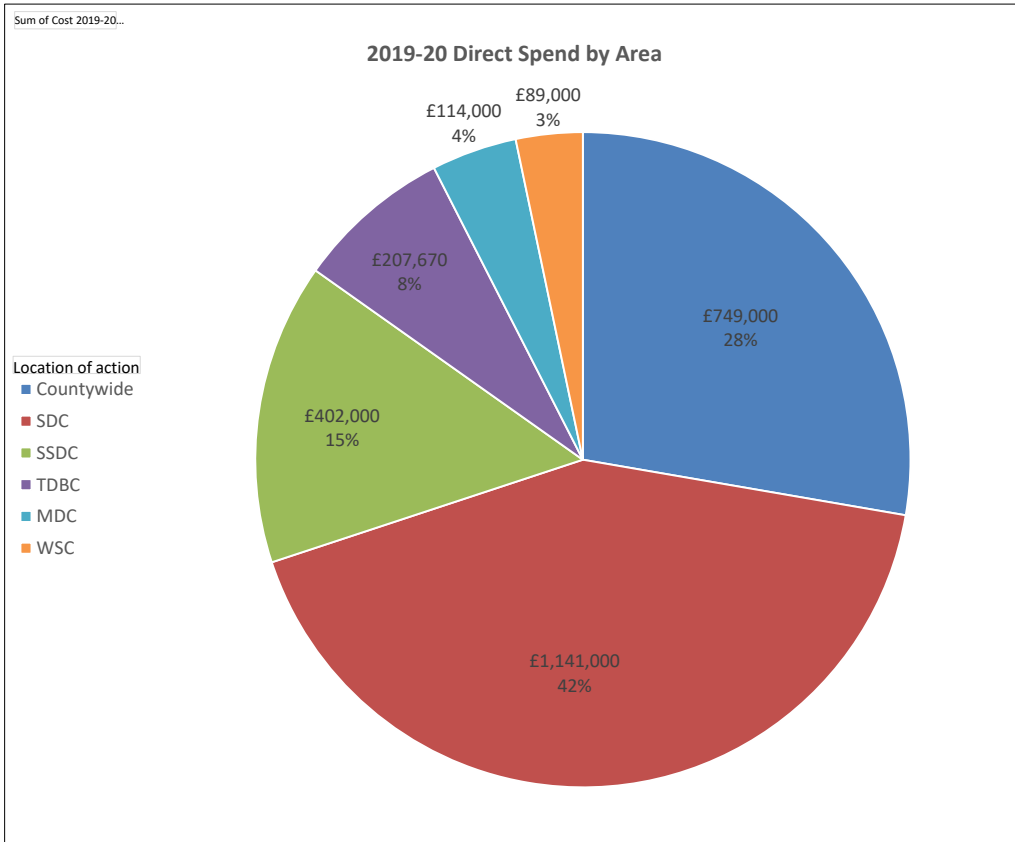
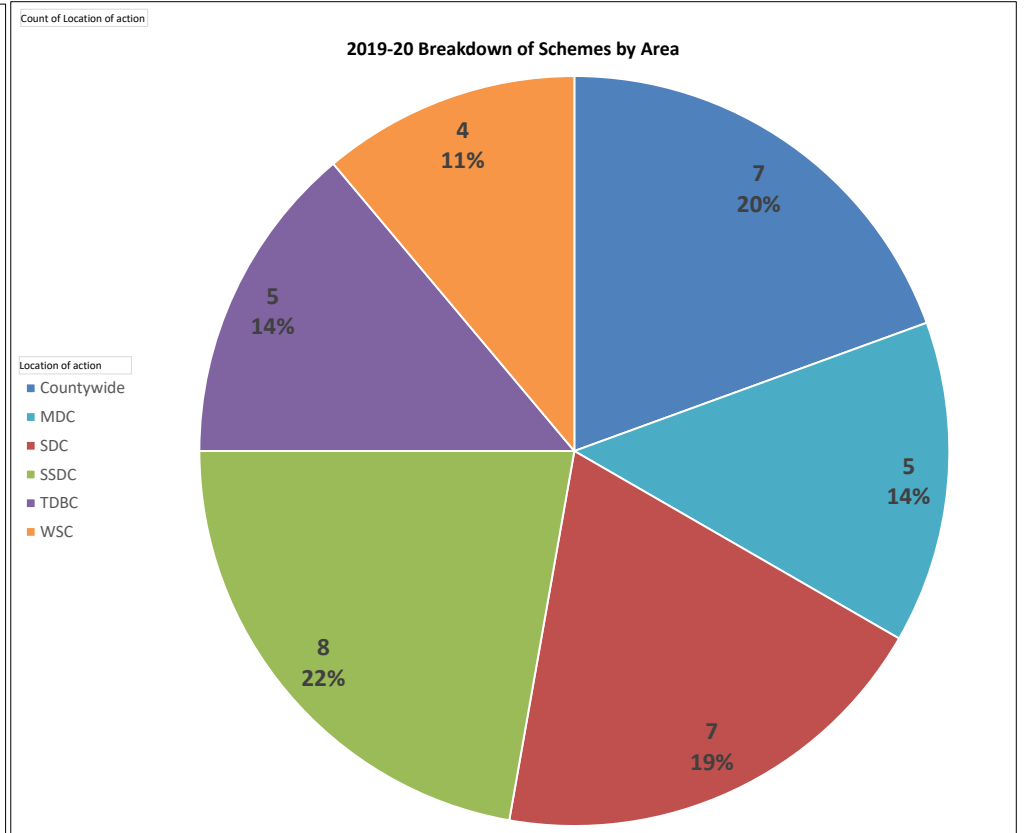


Chart 3



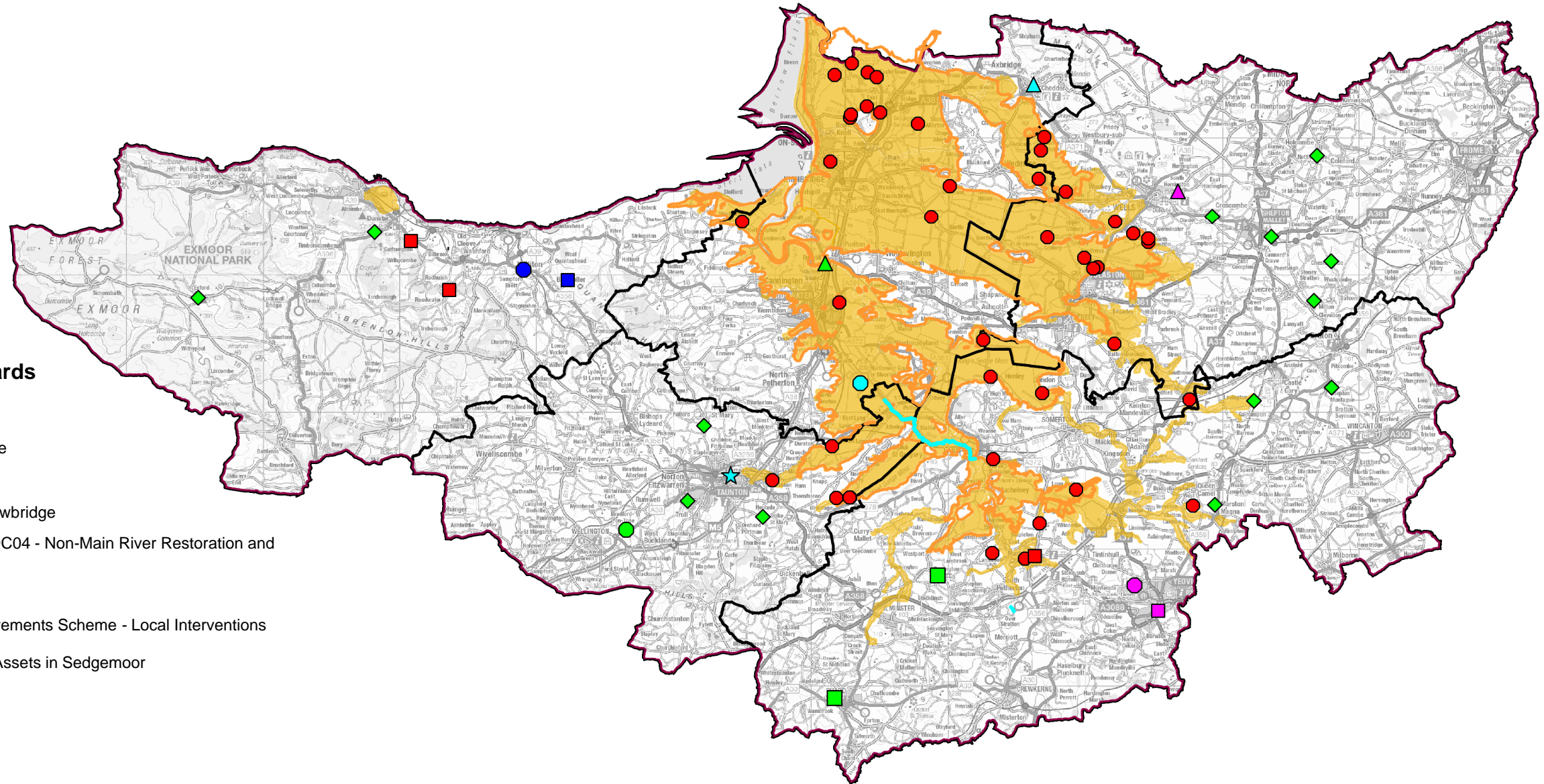
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SRA Enhanced Programme 2019-20				Appendix 2a 2019-20 Enhanced Programme List – Public version – no costs
Title	Outline of Scheme/Activity/Action	Addition al £s or new work	Delivery Date mm/yy	Objectives, Outcome & Benefits
Hills to Levels - Land Management and NFM to Slow the Flow	Employing nature-based and land management solutions to local flooding in upper catchment affecting villages, houses, highways and to contribute towards solving catchment scale flooding in Tone, Parrett, West Somerset Streams, Brue, Axe and Somerset Frome. 1. Design and implementation of 30 small-scale and natural flood management capital works to detain water in the upper catchment and reduce peak flows. 2. Increase uptake of soil management techniques and cropping changes which improve the infiltration of water and reduce run-off across approximately 50 farms. This includes split field trials, soil husbandry reports and workshops. 3. Respond to 50 highway flooding and LLFA referrals where land management can help provide a solution. 4. Operate a second reverse auction in 2019/20 to deliver enhanced land management changes and engage more land managers. 5. Modelling at sub-catchment scale to demonstrate the effectiveness of the NFM measures that have already been installed.	New	Mar-20	Objectives: • Reduce the depth and duration of flood events in Somerset • Reduce local flash flooding in the upper and mid catchment areas • Reduce number and severity of highway flooding incidents • Build natural capital potential through improved soil structure and soil management • Deliver multiple environmental benefits alongside flood risk reduction • Engage increasing number of landowners and farmers in reducing run-off from their land • Promote whole catchment approach to flood risk management • To reduce sediment loading in dredged profiles Outcomes: Reduced soil loss and water flow from the upper catchment Delay to flood peaks in sub-catchments Fewer local flooding incidents More farmers/landowners reducing flood risk on their land Benefits: • Reduced soil loss in the upper catchment should reduce the need for de-silting in the lower catchment • Reduced spending by LHA on solving flooding problems and clear up after incidents • Beneficial land management works will decrease rates of overland flow that result in local flooding • Increasing infiltration and reduce water run-off will reduce flow levels
Co-Adapt EU Project Somerset	A contribution of 40% match funding to enable Somerset partners to participate in Co-Adapt, if a final bid to the EU's Interreg 2 programme is successful before the end of March 2019. The aim of Co-Adapt is to investigate and try out ways of engaging Somerset residents in planning for long-term adaptation to the impacts of climate change. The main partners locally are FWAG SW, Somerset Wildlife Trust, Somerset County Council, the National Trust and Devon County Council (as the accountable body for the Blackdown Hills AONB Partnership). Much emphasis is placed on what the EU calls co-creation, which means people and organisations working together.	New	Jun-22	Objective: In Somerset, Co-Adapt will invest in the development, testing and rolling out of approaches to the co-creation of nature-based solutions that improve people's capacity to adapt to the water-related effects of climate change. Somerset will become more flood (and drought) resilient. Outcomes – Somerset Levels: In 2014, 150km2 of the Somerset Levels and Moors flooded. The cost to the whole county was up to £147.5million. The aim of Co-Adapt is to explore sustainable approaches to flood protection and alleviation. More Land Trusts and Moor Associations will be encouraged, following up on work funded by the SRA, eg on West Moor. Co-Adapt investments will result in: • 2500 hectares on the Somerset Levels being better adapted for flooding and drought, with improved accessibility to five moors and three structures adapted to deliver more naturally functioning water management with less reliance on traditional engineering techniques. • An adapted water management regime on 1500 hectares to manage flooding using natural processes rather than pump drainage, saving €200,000+ in a major flood event. This will significantly reduce the current total costs of flood and drought management in the pilot area. • Monitoring equipment will be placed on adapted water management structures to measure their effectiveness in delivering water management.
Cheddar Study	A study into flood risks in the Cheddar Gorge area. After flooding in November 2017, the B3135 through the Gorge was closed for a week while rocks and debris were removed and the road was repaired. The aim of this study is to identify measures which could be taken by the SRA and its partners to safeguard properties, businesses and a very special part of Somerset. Landscape and environmental designations include Mendip Hills Area of Outstanding Natural Beauty (AONB), Special Area of Conservation, and Site of Special Scientific Interest (SSSI).	New	Mar-20	Objectives: Identify works to: • Reduce flood risks to properties and businesses, and/or increase their resilience. • Reduce the frequency and duration of closures to the B3135 and prevent damage to infrastructure.
Pioneer Dredging River Parrett – Oath to Burrowbridge	Work on detailed plans for pioneer dredging between Oath and Burrowbridge began in January 2018. Most of the funding for this scheme is coming from the Heart of the SW Local Enterprise Partnership. As planning for the scheme has progressed, and more detailed information obtained, it has become apparent that the scheme will cost more than originally planned. An SRA contribution will enable works to proceed and desired outcomes to be achieved. Dredging this stretch will also tie in with the SRA's proposed enhancement scheme for the River Sowy (created in 1969-72 as the Parrett Flood Relief Channel) and King's Sedgemoor Drain.	New	Dec-19	Objective: Dredge the River Parrett between Oath and Burrowbridge. Benefit: Computer hydraulic modelling indicates that dredging between Oath and Burrowbridge will reduce flood risks to just over 40 square miles of land in the Parrett catchment, and benefit 200 properties. Outcome: Dredging this stretch will also tie in with the SRA's proposed enhancement scheme for the River Sowy. Together, the two schemes will create possibilities for greater operational flexibility in the management of flood water.
A38 Blackbird Bends, Nr Wellington, Flood Alleviation Study	A study of the catchment upstream of the area around Blackbird Bends on the A38 near Wellington, to identify works that will reduce the risks of flooding along this busy and important road. In 2017-18 the SRA funded drainage improvements on the A38 nearby at Rumwell, and in 2018-19 a new drainage pipe was installed for the SRA across the A38 near Chelston. This study will investigate what more can now be done. The A38 is one of Somerset's busiest roads, used by more than 17,000 vehicles every day. Also, if the M5 is closed, the A38 is used as a diversion, so it is important to keep it open.	New	Mar-21	Objectives: • Study the catchment area immediately upstream of the Blackbird Bends. • Identify works and measures to reduce flow reaching the area around the Blackbird Bends. • Assess methods of getting water under the A38, including engineering costs and any costs for diverting services. • Model flows and impacts downstream of any proposed schemes. • Mitigation of any increased flows downstream. Outcome: • Identify a flood prevention/reduction scheme(s) at the A38 Blackbird Bends. Benefit: • Keep open the A38 and prevent local businesses being flooded.
Countywide Enhanced Drain Jetting	The SRA funds pro-active drain jetting at places known to be highly susceptible to flooding to help ensure that highway drainage systems are kept fully operational. Drains are otherwise only jetted by Somerset County Council on a reactive basis: that is, once they have become blocked. Pro-active jetting is designed to stop drains from getting blocked in the first place, by removing silt and debris. The aim is to keep roads open during times of flood.	Additio nal	Mar-20	Extra SRA-funded drain jetting targets places across Somerset at high risk of flooding. It is part of a six-pronged attack on highway flooding problems, along with gully-emptying, de-silting of structures, targeted edge of road clearing, silt-trap emptying and the Hills to Levels system of highway referrals to reduce run-off from land onto roads. These works reduce annoyance and inconvenience for residents, businesses and visitors. Together they help to keep roads open, make them safer, preserve access for communities, and safeguard properties from flooding. Extra SRA-funded drain-jetting began in 2016-17. It enables problems to be addressed before, not after.
Yeovil Urban SuDS Study	A study into how surface water flooding 'hotspots' in Yeovil could be tackled through the use of Sustainable Urban Drainage Systems (SuDS). Carefully placed and well-designed SuDS can also offer local people recreational and educational opportunities, and benefit wildlife and the environment.	New	Mar-20	Objectives: • Identify potential locations for SuDS to address surface water flooding problems and provide other benefits (recreational, educational, and environmental). Outcomes: • List of areas prone to surface water flooding. • List of viable site-specific SuDS schemes, with design concepts. Benefits: • A more comprehensive, efficient and cost-effective approach to surface water management. • Raised public awareness of flooding issues in Yeovil. • Recreational, educational, environmental and biodiversity benefits.
Countywide Enhanced Gully Emptying	Gullies in the highest flood risk areas are cleansed once a year by Somerset County Council. SRA funding supports an enhanced cleansing regime. It allows 24,000 high risk gullies to be given an extra mechanical cleansing every year.	Additio nal	Mar-20	Extra SRA-funded gully emptying targets places across Somerset most susceptible to flooding. It is part of a sixpronged attack on highway flooding problems, along with drain jetting, de-silting of structures, targeted edge of road clearing, silt-trap emptying and the Hills to Levels system of highway referrals to reduce run-off from land onto roads. These works reduce annoyance and inconvenience for residents, businesses and visitors. Together they help to keep roads open, make them safer, preserve access for communities, and safeguard properties from flooding. Extra SRA-funded gully emptying began in 2016-17. It now enables around 24,000 of the highest risk gullies to be emptied twice a year as opposed to once.
Countywide Enhanced Silt-trap Emptying	Somerset has around 80 silt-traps (not including cattle grids). Across all districts, they help to reduce flood risks. Some silt-traps are so valued locally they were originally paid for by parish councils (for example, at Barrington). Extra SRA funding will help to stop silt traps getting blocked, and so also help to stop roads flooding and deteriorating.	Additio nal	Mar-20	Extra SRA funding will enable silt-traps to be emptied so that they continue to work as they should. Silt washed out from land near roads will be collected and stopped from blocking highway drainage systems. Countywide Enhanced Silt-trap Emptying is part of a six-pronged SRA attack on highway flooding problems, along with drain jetting, de-silting of structures, targeted edge of road clearing, silt-trap emptying and the Hills to Levels system of highway referrals to reduce run-off from land onto roads. These works reduce annoyance and inconvenience for residents, businesses and visitors. Together they help to keep roads open, make them safer, preserve access for communities, and safeguard properties from flooding.

Title	Outline of Scheme/Activity/Action	Additional £s or new work	Delivery Date mm/yy	Objectives, Outcome & Benefits
Preston Brook, Yeovil Enhancement Implementation Scheme	The aim is to create a flood attenuation pond and wetland area in the grounds of Preston Academy. This proposal stems from a feasibility study funded by the SRA in its 2018-19 Enhanced Programme. The purpose of this study was to look at ways of introducing natural flood management techniques to an urban area. The Preston Brook project is being led by the Farming & Wildlife Advisory Group SW, using Yeovil Rivers Community Trust for delivery. Flood attenuation and environmental benefits will accrue along Preston Brook downstream of the new feature at Preston Academy, to Tith Court and Century Park. Around 60 homes and 10 commercial properties are expected to enjoy reduced flood risks.	New	Mar-20	<p>Objectives:</p> <ul style="list-style-type: none"> Design and construct a multi-function surface water feature which has the primary objective of providing flood alleviation for areas downstream of the site but also aims to improve water and habitat quality, biodiversity and enhanced recreation and educational resources. Use the finished project as a fully-evidenced "model" to help design and implement future urban projects. <p>Outcome:</p> <ul style="list-style-type: none"> An effective design which achieves its objectives and can form the basis for future projects. <p>Benefits:</p> <ul style="list-style-type: none"> Effective flood alleviation and enhanced resilience to climate change. Use of the "model" approach will save time and money, and establish and maintain partner networks. Raised public awareness of flooding issues.
Countywide de-silting of Structures	A programme of de-silting bridges and culverts, and re-aligning channels next to highways structures, to improve ways that watercourses can flow, and increase the volumes of water they can carry. De-silting structures reduces flood risks to roads, land and properties. Sites that would benefit from de-silting are identified by Somerset County Council's highways department through the use of records kept by local highways officers, or concerns raised by other authorities or members of the public. SRA funding is required as de-silting structures is not done as a routine operation by Somerset County Council.	Additional	Mar-20	Silting-up is a problem because it can damage structures such as bridges and culverts, and cause flooding. De-silting increases the flow of water through bridges and culverts and reduces the risk of structural damage caused by pressure, or by floating debris colliding and getting stuck. De-silting also cuts the risk of flooding on roads and in nearby properties. It removes watercourse "bottle necks" allowing whole systems to work more efficiently. It is part of a six-pronged SRA attack on highway flooding problems, along with drain jetting, gully-emptying, targeted edge of road clearing, silt-trap emptying and the Hills to Levels system of highway referrals to reduce run-off from land onto roads. SRA funding for desilting of structures began in 2016-17.
Taunton Strategic Flood Alleviation Improvements Scheme - Local Interventions	This major scheme is now moving towards the design of various local measures to reduce flood risks in Taunton town centre, and the submission of a planning application for the construction of these works. Actions being worked on are: 1. Vivary Park, Sherford Stream Improvements. 2. Raising bridges on Mill Stream by Castle Street. 3. Mill Stream flow diversions by French Weir. 4. Optimisation of Long Run meadow storage, upstream of French Weir. 5. Conveyance improvements (particularly considering culverts) on Galmington Stream near Parkfield Drive. 6. Bathpool options - a) Closing Canal Route at Firepool b) Railway Culverts between Obridge and Bathpool c) Flood Relief Channel at Bathpool parallel to Hyde Lane area d) Over-pumping at Old River Tone Outfall by Bathpool Bridge e) Old River Tone Flap Valve Bund by Bathpool Bridge. The aim of these local improvements is to increase Taunton's capacity to deal with flood threats, pending delivery of the two main elements in the overall strategic scheme: the creation of a large flood water storage area upstream, and the raising of flood defence walls in the town. The scheme is led by Taunton Deane Borough Council and the Environment Agency, and backed by the SRA as a key project for Somerset.	Additional	Oct-19	<p>Objective:</p> <ul style="list-style-type: none"> Reduce flood risks to Taunton and (where possible) its wider catchment. <p>Outcome:</p> <ul style="list-style-type: none"> The design of a series of local interventions to reduce flood risks in Taunton and the preparation and the submission of a planning application for these improvements. <p>Benefit:</p> <ul style="list-style-type: none"> Greater protection for Taunton against flooding while work continues on developing a long-term strategy - and securing funding - for major features such as an upstream storage area and raised flood walls in the town centre.
Countywide 'Targetted' Road Edge Cleaning	Mechanical brushing of the edge of roads at places across Somerset known to be highly susceptible to flooding. Sites must meet one or more of the following criteria: • Located within defined county flood zone • Aligned with highest-risk annual gully-emptying round • Linked with SRA-funded Enhanced Drain Jetting location SRA funding enables roads to be swept which would not otherwise be swept. The programme is dynamic, because of inherent variabilities. Roads, particularly rural roads, are not uniform: they narrow, they widen; they dip, they rise; in some years more debris accumulates than in other years. So these works have two big unknowns – the amount to be collected, and the time it will take. Unpredictability means that costs have to be monitored week-in week-out, so it is impossible to publish in advance a definitive list of places that will be visited. Generally, however, experience suggests that more than 30 miles of roads will be brushed, and more than 600 tons of 'arising' collected.	Additional	Mar-20	<p>Objectives:</p> <ul style="list-style-type: none"> The effectiveness of highway drainage systems is severely impeded by the accumulation of debris and detritus, with resulting localised flooding. Brushing road edges at targeted locations offers safety benefits to highway-users as well as preventing future clogging of highway drains. Road sweeping in rural areas began in 2016-17, funded by the SRA. <p>Outcomes:</p> <ul style="list-style-type: none"> Leaves and other large debris will be prevented entering in to and covering the road gullies which would block the highway drainage system. <p>Benefits:</p> <ul style="list-style-type: none"> Highway drainage systems will be operational in times of flooding
Mendip Enhanced Maintenance Works	A two-stage project designed to reduce flood risks. 1. A study of culverts in Mendip to identify ones which are not included in Mendip District Council's annual maintenance programme, and which need repair and improvement. 2. A programme of extra works targeting the highest priority culverts in flood risk areas.	Additional	Mar-20	<p>Objectives:</p> <ul style="list-style-type: none"> Identify culverts in Mendip that require remedial work (including culverts whose ownership is unclear). NB: This work will focus on areas and sites in Mendip not already covered by SRA-funded IDB and Somerset County Council Highways Department programmes. Develop a programme of works targeting culverts where the biggest flood risk reduction impacts would accrue. Undertake remedial works to culverts (possibly including the removal or replacement of structures). <p>Outcomes and Benefits:</p> <ul style="list-style-type: none"> Reduced risks of local flooding. Reduced risks of structures collapsing or failing. Improved conveyance of surface water through the surface water network. Reduced need for future reactive maintenance of culverts. <p>The study is likely to identify more works than can be funded with this allocation. This will provide a pipeline of schemes for future projects should funding be available</p>
CCTV Surveys of privately owned drains	SRA funding provides extra means to survey privately-owned culverts, so as to identify problems that can be taken forward by riparian owners or flood risk management authorities, and/or gather information to supplement flood investigations and asset data collection.	Additional	Mar-20	<p>Objectives:</p> <ul style="list-style-type: none"> Provide Somerset County Council, as the Lead Local Flood Authority, with extra means to survey privately owned culverted watercourses, so as to: Gather information. Identify blockages that have contributed to flooding, or could do so in future. Determine responsibilities for action. Provide evidence to support work with riparian owners to undertake remedial works under the Land Drainage Act.
Installation of 3 Silt-traps, Chard	Three new silt-traps in the Crimchard area of Chard (Reservoir Road, Catchgate Lane, Laurel Gardens) will help to stop the flooding of roads, protect properties and make driving safer. Around 60 properties will benefit.	New	Mar-20	<p>Objective:</p> <ul style="list-style-type: none"> Install three silt-traps. <p>Outcome:</p> <ul style="list-style-type: none"> Silt-traps prevent silt from entering and blocking highway drainage systems. <p>Benefits:</p> <ul style="list-style-type: none"> Highway drainage systems work better in times of flood. Roads are kept open and safer. Around 60 properties are better protected.
Sampford Brett Works	Sampford Brett, near Williton, has suffered numerous flooding problems over many years. Concerns currently focus on the maintenance and capacity of a 325m-long culvert; the build-up of silt at the outfall pipe on the Doniford Stream; and the build-up of silt in the Sampford Brett stream. SRA-funded improvements would include a CCTV inspection of the culvert, removal of silt at the outfall pipe, and de-silting of the Sampford Brett stream. A thorough programme of engagement with riparian owners is also being planned to ensure clarity and action over future responsibilities.	New	Jun-19	<p>Objectives:</p> <ul style="list-style-type: none"> Carry out a CCTV inspection of a 325m long culvert to identify blockages that have contributed to flooding in the area to reduce the risk of flooding and possible road closure. Remove silt and other debris within the culvert. Liaise with riparian owners to provide information on how best to maintain their section of the stream. <p>Outcomes:</p> <ul style="list-style-type: none"> Improved conveyance of water through the culvert. Identification of riparian owners and raised awareness of their responsibilities under the Land Drainage Act. <p>Benefits:</p> <ul style="list-style-type: none"> Reduced flood risk for around 30 houses and businesses. A reduction in the number of times the main road could be closed which is the main route into the villages of Capton and Vellow. Raised awareness of riparian responsibilities in the area.

Title	Outline of Scheme/Activity/Action	Additional £s or new work	Delivery Date mm/yy	Objectives, Outcome & Benefits
Moorland surface water and drainage improvements	A package of improvements tackling numerous surface water drainage problems in Moorland, following a thorough investigation by the Parrett Internal Drainage Board and Somerset County Council's Flood Risk Management Team and Highways Department. As Moorland has grown over the last 100 years, its drainage system has changed and people have lost awareness of issues such as the location and condition of parts of the drainage network, and who should be responsible for its maintenance. Intense rainfall has resulted in excessive water on roads, the internal flooding of at least one property along Northmoor Green Lane and the flooding of a small number of gardens and driveways along Church Road. SRA partners are now keen to fix various problems and to raise residents' awareness of their future responsibilities as riparian owners.	New	Mar-20	Working with Somerset County Council's Flood Team and Highways Department a package of improvements involving the local community has been identified. This includes a combination of maintenance and watercourse improvement works. Partners will also engage with the community, with riparian owners in particular, to raise understanding of responsibilities and the function of different aspects of the drainage network.
Wetland Biomass Feasibility Study	A feasibility study into the use of wetland biomass from the Levels and Moors using Somerset County Council's highway depots as a case study. Feasibility study could demonstrate an income stream from wettest and hardest to farm areas through generation of biomass fuel. Provides end use for wetland products arising from wettest areas of high environmental value in the Brue Valley and beyond. Exploring the increased use of wetland biomass was a specific action identified early on in the development of the Flood Action Plan. The action feeds into the aim of the SRA to support business confidence and economic growth.	New	Sep-19	Objectives: <ul style="list-style-type: none"> To use a real-life case study to assess the viability of using wetland biomass for heat generation. Produce a feasibility report based on installing biomass boilers using wetland biomass in highway depots in Somerset. Outcome: <ul style="list-style-type: none"> Help to determine if the production of wetland biomass is a realistic commercial proposition. Benefits: <ul style="list-style-type: none"> If the study shows that the wetland biomass is commercially viable in this scenario, then it could lead to creation of new businesses and jobs on the Somerset Levels, provide alternative incomes for land owners, different land management methods, enhanced wildlife environment and provide a green, carbon neutral, environmentally friendly fuel stock negating the need for burning fossil fuels. If the report shows that wetland biomass of this type is not commercially viable at this stage it would show what shortfalls there currently are, and that further assistance is needed.
Installation of Silt-trap, Barrington	A new silt-trap on Bonnings Lane, Barrington will help to prevent flooding of the road, protect properties and make driving safer. Around 25 nearby properties will benefit. For the SRA, FWAG SW are also working with local landowners on measures to reduce run-off from nearby fields.	New	Mar-20	Objective: <ul style="list-style-type: none"> Install new silt-trap. Outcome: <ul style="list-style-type: none"> Silt-trap prevents silt from entering and blocking highway drainage systems. Benefits: <ul style="list-style-type: none"> Highway drainage systems work better in times of heavy rainfall and flood. The road is kept open and safer. Around 25 nearby properties benefit.
Highway SuDS Retrofit Trial	A project designed to show how Sustainable Urban Drainage Systems (SuDS) can be used to tackle problems with surface water and flooding on roads. SuDS have not been used enough in Somerset in highway situations, but there is increasing evidence from elsewhere that they compare favourably with traditional underground engineered solutions. One or more sites in Taunton Deane will be chosen. It is also planned to show how SuDS can improve water quality, provide new habitats for wildlife and make places more pleasant to live and work.	New	Mar-20	The SRA and its partners will learn useful lessons about SuDS, which will help to encourage and shape their future use. Issues include: <ul style="list-style-type: none"> The engineering suitability of SuDS for highway drainage, and what types of SuDS are best for this purpose. How the cost of SuDS compares with traditional drainage approaches. SuDS as a more climate-resilient approach to drainage. Additional benefits of highway SuDS compared with traditional drainage systems.
Remedial works to culverts under highways in IDB areas	The continuation of a programme that has involved the inspection of more than 700 culverts across Internal Drainage Board areas in Mendip, Sedgemoor and South Somerset. Culverts most in need of improvement have been identified, and the main aim in 2019-20 is to deliver three major structural repairs and a further programme of jetting, clearance, and timely maintenance to around 40 culverts. Periodic inspections will also be made to identify possible future problems before they happen.	Additional	Mar-20	All culverts are vulnerable to possible blockages from debris and vegetation, and many were not designed to bear the heavy weights and rates of modern traffic. There is significant potential for water flow capabilities to be lost, through blockages or collapse. This would result in flooding to local roads, properties and land. This SRA-funded programme therefore picks out the most vulnerable and strategically important culverts for preventative maintenance and repair, to forestall the dangers of disruption to residents, drivers and landowners.
Non-Main River Restoration and Maintenance Works in Mendip	A two-stage project designed to reduce flood risks. 1. A study of all watercourses in Mendip (except for main rivers) to identify ones which are not included in Mendip District Council's annual maintenance programme, and would benefit from improvements. Such watercourses may have reduced capacity through poor maintenance, siltation or blockage and they may therefore pose flood risks to properties, land and roads. 2. A programme of extra works targeting the highest priority watercourses in flood risk areas.	New	Dec-19	Objectives: <ul style="list-style-type: none"> Identify watercourses that require clearance, maintenance and/or restoration (including those where ownership is unclear). Develop a programme of works targeting watercourses with the biggest potential impact on flood risks. Undertake remedial works to watercourses identified (possibly including Natural Flood Management measures, if appropriate). Outcomes and Benefits: <ul style="list-style-type: none"> Reduced local flood risks. Reduced risk of debris and silt being carried downstream to block structures. Improved conveyance of surface water through the surface water network. Reduced need for future reactive maintenance. The study is likely to identify more works than can be funded with this allocation. This will provide a pipeline of schemes for future projects should funding be available.
West Somerset Streams Maintenance	Parts of West Somerset lie in Rapid Response Catchments where flood waters can rise so quickly they endanger people's lives. In these areas, it is important to reduce flood risks <i>before</i> such threats arise. Small capital schemes and extra maintenance can make a big difference. SRA funding is therefore given for activities such as vegetation clearance and de-silting that could not otherwise be afforded.	Additional	Mar-20	Objective: <ul style="list-style-type: none"> Carry out vegetation clearance and de-silting works to identified watercourses in West Somerset. Outcomes: <ul style="list-style-type: none"> Reduced flood risks to people and properties and reduced flooding on roads. Less need for future reactive maintenance. Fewer localised flooding incidents. Benefits: <ul style="list-style-type: none"> Reduced flood risk to multiple communities in West Somerset, properties and agricultural land. Reduced number of times that total closure will occur on the A39 and A358 and many minor roads in the area. Maintenance of wildlife habitat.
Enhanced Maintenance of Land Drainage Assets in Sedgemoor	Historic land drainage and flood relief infrastructure across Sedgemoor will benefit from enhanced maintenance and improvements, particularly from early interventions to stop problems from building up in the future.	Additional	Mar-19	Additional SRA funding gives Sedgemoor District Council greater capacity to undertake works that deal with issues before they become problems, and to put in enhancements - such as telemetry - that make flood defence schemes and infrastructure more efficient. Several major, expensive schemes are progressing in Sedgemoor, but the district council and the SRA believe as a matter of policy that benefits also accrue from smaller schemes that deal with local issues for the benefit of different communities.
Community Flood Information Pilot Project	A pilot scheme centred around Martock in South Somerset and Roadwater and Carhampton in West Somerset, places known for their active involvement in matters to do with flooding. The aim is to try out means of setting up very localised early flood warning systems, through using smart, low-cost, low-maintenance devices at key locations identified by flood wardens, flood group members and residents. If this pilot exercise is successful, participants will be well placed to take on future responsibilities for the maintenance of systems and it is hoped other places will be keen to follow their lead.	New	Mar-20	Objective: <ul style="list-style-type: none"> Test approaches for increasing community resilience through better, more localised information about specific flood risks than can be provided through the Environment Agency's system of alerts and warnings. Outcomes: <ul style="list-style-type: none"> Two communities / groups of communities to benefit from localised early warning and information systems. Learning from the two pilots to inform further roll out. Benefits: <ul style="list-style-type: none"> Better information for local communities to support their Flood Warden and community resilience activities. Tested models to encourage engagement by other communities.
Woolston Moor Scheme	Woolston Moor is a hamlet in West Somerset with a Flood Alleviation scheme that badly needs fixing. Problems include silting up, possible culvert blockages or collapse, and the delamination (breaking up) of steep-sided watercourse walls. Proposed SRA-funded works include de-silting, CCTV inspection of a culvert 160 metres long, and watercourse wall repairs.	New	Jul-19	Objectives: <ul style="list-style-type: none"> To carry out a CCTV inspection along the length of the 160m culvert. To remove silt and debris through the culvert and carry out any remedial work to the sides of the watercourse at the entrance to the culvert. Outcomes: <ul style="list-style-type: none"> Improved conveyance of water through culvert. Reduced risk of localised flooding. Reduced risk of the sides of the watercourse collapsing. Benefits: <ul style="list-style-type: none"> Increased protection from flooding to approximately 10 properties and adjacent farmland.
Knapp Hill Catchment Feasibility Study	A study of flooding problems in the catchment of Knapp Hill on the edge of Wells. Two watercourses flow down towards the Bath Road, which floods regularly during periods of heavy rain. There are further issues with erosion, the possible undermining of small bridges and culverts and some flood risks to properties and public footpaths. SRA-funded CCTV surveys of culverts underneath the Bath Road and other assessments and reviews will help to identify key areas for improvements.	New	Dec-20	Objective: <ul style="list-style-type: none"> Identify the key risks to surface water conveyance through the Knapp Catchment. Identify improvements to watercourses and structures within the catchment to improve biodiversity, reduce flood risk and minimise erosion. Outcome: <ul style="list-style-type: none"> A detailed Options Appraisal report for the catchment which will form the basis of a future bid for funding to the SRA to complete the remedial works identified.

Title	Outline of Scheme/Activity/Action	Additional £s or new work	Delivery Date mm/yy	Objectives, Outcome & Benefits
Riparian Responsibilities Officer	This proposal would ensure the continuation of the SRA-funded Riparian Responsibilities Officer post beyond September 2019. The post allows a proactive approach to be taken to engaging communities about watercourse maintenance and riparian duties.	Additional	Mar-20	Currently not funded - there is sufficient budget remaining to fund the role to the end of the planned secondment period. The Riparian Responsibilities Officer will raise awareness of riparian responsibilities contributing to flood risk management whilst emphasising the environmental benefits of appropriate channel management. The proposal will support and enhance the work of the existing authorities as well as other community engagement initiatives. The officer's focus will be on the enabling aspects of the role, working with a range of stakeholders to positively deal with the issue of riparian responsibilities across the county in partnership with authorities holding land drainage powers. It is envisaged that the officer will support engagement work already undertaken with flood-affected communities and contribute to the outcomes of other SRA-funded projects.
Development of Asset Database	Lead Local Flood Authorities are required, under the Flood and Water Management Act 2010, to 'establish and maintain: (a) a register of structures or features which, in the opinion of the authority, are likely to have a significant effect on a flood risk in its area, and (b) a record of information about each of those structures or features, including information about ownership and state of repair'. The Act goes on to state that 'the lead local flood authority must arrange for the register to be available for inspection at all reasonable times'. Somerset's Lead Local Flood Authority is Somerset County Council (SCC). SCC's asset register fulfils statutory requirements. However, significant benefit for SCC and other SRA partners could be achieved if funding was available to move beyond the basic statutory requirements with a new database system that included a web map interface for authorities and the public to use.	New	Mar-20	Currently not funded - Whilst it was recognised this would be a valuable tool to have it does not score well against the FAP criteria. Combined with the relatively high level of contribution it was agreed that other projects should proceed in advance of this The aim is to develop a web-based interactive database/mapping system that would give members of the public, and SRA partners, a better view of information available about assets. Additional information about assets could also be reported. Positive initial discussions have been held with SRA partners. The project will contribute to better asset management and understanding of flood related structures. This will support programmes of maintenance, inform flood risk management strategies and flood investigations. All of which will result in enhanced flood and water management.
Curry Rivel School Drainage Improvements	This proposal relates to an ordinary watercourse that has been culverted both upstream and downstream of Curry Rivel Primary School. Culverting was done at different times, in different ways. A recent SRA-funded CCTV survey showed that the system is under capacity in various places. This means that exceedance flows travel over land instead, along the road and into the primary school.	New	Aug-19	Currently not funded - whilst it was recognised the scheme delivered localised benefits it did not score very well against the broader FAP criteria. It is possible it could be taken forward by Somerset CC in the future if funding is available. Improvements will be made to some culverted sections of watercourse in Curry Rivel to reduce flood risk and/or increase resilience for the primary school, properties and local roads (including Water Street). The project will complement work that Somerset County Council as the Lead Local Flood Authority has been taking forward in collaboration with the council's Highways, Property Services and Civil Contingencies sections, the SRA's Riparian Responsibilities Officer, Curry Rivel Parish Council and the primary school to explore this flooding problem and potential mitigating measures. The Farming & Wildlife Advisory Group SW has also been looking at reducing surface water flooding in the upper catchment through natural flood management techniques.
Ruishton /Crech St Michael and Thornfalcon Flood Signs Scheme	Erect five Variable Message Signs to warn drivers when the road to the Mill Lane Trading Estate is flooded. The road is in a flood zone and floods regularly. It is not obvious to vehicles how deep the flood water is.	New	Mar-20	Currently not funded - the proposal did not score well against the FAP criteria. Whilst signs would provide important information during times of flooding they do not reduce flood risk or increase resilience. Objective: • Warn people that the road is impassable due to flooding, before they get there. Outcomes: • Road users will be aware that the road is flooded and will take alternative routes. • Drivers will be less likely to try to drive through the floods and become stranded. Benefits: • Road users will be warned about the impassable road before they get there, so they can take alternative routes. • Fewer drivers will abandon cars in the flooded road.
Easthills Cemetery, Warminster Road, Frome	Groundwater flooding is currently causing parts of the Easthills Cemetery in Frome to be unusable. This scheme would put in place a series of French Drains traversing the site, to intercept ground water flow and discharge this to the existing ditch through the cemetery.	New	Mar-20	Currently not funded - the proposal did not score well against the FAP criteria. Objectives: • Reduce risk of flooding to graves. • Improve drainage of the land. • Enable full use and expansion of the cemetery. Benefits: • Improvements to water quality and land drainage. • Reduced risks to public health and the environment. • Reduced risk of flooding to graves to minimise flotation.



KEY

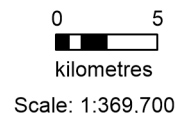
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- FWLM02 - Yeovil Urban SuDS Study
- FWRS04-20 - Preston Brook, Yeovil Enhancement Scheme
- IDB09-20 – Remedial works to culverts under the highway
- IDB13-20 - Pioneer Dredging River Parrett – Oath to Burrowbridge
- LAMDC03 - Mendip Enhanced Maintenance Works; LAMDC04 - Non-Main River Restoration and Maintenance Works in Mendip
- ▲ LAMDC05 - Knapp Hill Catchment Feasibility Study
- ★ LATDBC01-20 - Taunton Strategic Flood Alleviation Improvements Scheme - Local Interventions
- LASDC02-20 - Enhanced Maintenance of Land Drainage Assets in Sedgemoor
- LAWSC04 - Sampford Brett Maintenance Works
- LAWSC05 - Woolston Moor Flood Alleviation Scheme
- LAWSC06 - West Somerset Streams Maintenance
- ◆ LHA01-20 - Countywide de-silting of Structures
- LHA117 - A38 Blackbird Bends Flood Alleviation Study
- LHA118 and LHA119 - Silt-trap Installations
- ▲ LHA121 – Wetland Biomass Feasibility Study
- ▲ LLFA17 - Cheddar Study
- LLFA19 - Highway SuDS Retrofit Trial in Taunton Deane
- LLFA21 - Moorland Surface Water and Drainage Improvements
- IDB Area
- Works within Somerset Level & Moors Area - WS5 COAD1 - Co-Adapt EU Project Somerset
- WS5 PILOT - Community Flood Information Pilot Project
- Across Somerset: FWLM01-20 - Land Management & Natural Flood Management to Slow the Flow (soil management, cropping changes, highway flooding hotspots); LHA03-20 - Enhanced Gully Emptying; LHA04-20 - Enhanced Drain Jetting; LHA05-20 - 'Targeted' Road Edge Cleaning; LLFA01-20 CCTV Surveys of privately owned drains



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ITEM 8**Somerset Rivers Authority Joint Scrutiny Panel Paper**

Title: Building Local Resilience update

RECOMMENDATION

The Scrutiny Panel is asked to:

1. Consider and comment on the latest position with work stream 5 and the actions planned for 2019.

Purpose of the item

To update the Scrutiny Panel on the progress with SRA workstream 5.

Background and context

Work Stream 5 is called Building Local Resilience. It is intended to deliver outcomes against FAP objective 3: increase resilience to flooding for families, agriculture, businesses, communities and wildlife.

Progress with some activities has been slower than anticipated during 2018 due to the departure of the Community Resilience Officer but several promising projects are underway, and the opportunity has been taken to refocus the work stream.

Last year, the Board had the opportunity to comment about the development of flood networks and this paper includes an update on progress and proposed approaches for the current year for this and other projects.

Flood networks

The aim of this project is to identify, map, and where necessary, develop links between existing flood groups and encourage them to link together on a District and / or catchment basis so that the communities can engage with the SRA through attendance at the Somerset Water Management Partnership. The West Somerset Flood Group is a good example of effective community engagement. Outcomes from the project will be more resilient communities and groups that are able to support each other both in planning for and dealing with flooding.

During 2018, with assistance from the members of the SRA Technical Group, information was collected on known flood groups and areas were identified where there appeared to be gaps in coverage. The departure of the Community Resilience Officer has delayed further progress however the success of the Somerset Prepared community resilience conference in October shows that people are interested in being prepared.

During 2019, it is proposed to develop the flood networks approach through a project plan to include:

- Raising awareness:
 - o Media coverage under the SRA banner to attract people who are thinking about or might be encouraged to set up a local flood group;
 - o Emails to all existing flood groups whose contact details are known to the SRA partners;
 - o Linking in with other groups and networks eg environmental groups
- Engagement
 - o “Drop-in” sessions in local communities, supported by pieces in parish newsletters.
 - o Follow up conversations with communities who sent representatives to the Somerset Prepared conference.
 - o Hold network events at key locations where there are active groups who might form the nucleus of a local network eg Langport.

Other projects and activities - achievements during 2018:

- Increased the number of SRA projects that include community engagement by running a workshop for SRA Technical group partners (March) and refreshing the bid scoring criteria.
- Ran an engagement project with residents of Chadmead to support the Somerset Drainage Board’s assessment of the potential for a ring bank
- Part funded and supported the Somerset Prepared Community Resilience event in October attended by over eighty delegates from across Somerset. Event included presentations from the EA, Met Office and community representatives.
- Carried out a survey in November and December through the Community Council for Somerset to investigate whether access to affordable flood insurance continues to be an issue for residents following the introduction of Flood Re. The survey also asked general questions about residents’ attitude to flood risk and their awareness of SRA activities. Report is due in February 2109. I would like to bring a full report of findings to the Board in due course with recommendations from the Technical and Management Groups.
- Carried out a pilot project with volunteers from Rotary International to test new approaches to promoting and supporting household resilience. Pilot took place in November 2018. It included advance information to the community via the parish

newsletter backed up by door-to-door canvassing by Rotary volunteers with input from the parish council. Evaluation is due during February 2019. Once we have reviewed the outcomes of the pilot in Misterton, we are planning to extend this project by working with Rotary International in communities in the other Districts.

- Supported communities with information, advice and access to CRISP grants to support the purchase of resilience equipment.

Current status

The SRA has been funding a Community Resilience and Recovery Officer to work with the flood-affected Level and Moors communities. The CRRO left in September 2018 and I have taken the opportunity to address:

- ways to increase the pace of delivery under work stream 5;
- need for increased focus on projects to engage with businesses and to support formation of community networks;
- need for resource to encourage, support and facilitate more community projects and initiatives that will build local resilience.

I am about to recruit a fixed-term (two year) SRA Community Engagement Officer plus support.

New projects planned for 2019/20

- Engagement with the business and farming communities. Planning a roundtable meeting in the first quarter of 2019 with key stakeholders.
- Another community resilience event.
- Participation in the EU funded Co-Adapt project (subject to confirmation of funding. Decision due in February).
- Plus any spin-off projects to address needs identified by the insurance survey.

RECOMMENDATION

The Scrutiny Panel is asked to: consider and comment on the latest position with work stream 5 and the key actions planned for 2019.

Date: 18th January 2019

Author: Nicola Dawson (Somerset Local Authorities Civil Contingencies Unit)

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Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: Flood Action Plan Review and future strategy

RECOMMENDATION

The SRA Joint Scrutiny Panel is asked to consider and comment on progress to date with reviewing the Somerset Flood Action Plan and provide any recommendations to help shape the work.

Purpose of the item:

The purpose of this item is to provide Scrutiny Panel with an update on progress with delivering each of the actions within the original 20 Year Flood Action Plan and to set out the next steps for updating the plan.

Background and context

In January 2014 the Secretary of State for Environment, Food and Rural Affairs visited Somerset to see the effects of the flooding. He challenged Somerset to develop an Action Plan for a long-term sustainable future for the Somerset Levels and Moors.

The Somerset Levels and Moors 20 Year Flood Action Plan was published on 6th March 2014. It focussed on the catchments of the rivers Parrett, Tone, Axe and Brue.

A vision for the Somerset Levels and Moors was agreed by stakeholders, namely:

We see the Somerset Levels and Moors in 2030 as a thriving, nature-rich wetland landscape, with grassland farming taking place on the majority of the land. The impact of extreme weather events is being reduced by land and water management in both upper catchments and the flood plain and by greater community resilience.

(Reference: The Somerset 'Task Force', 2014)

It was recognised at the time that determining the long term sustainable future for the Somerset Levels and Moors (SLM) would require careful assessment of the options and evidence and difficult decisions around investments and how the community can adapt.

The plan was broken down into 5 workstreams with lists of actions.:

- Dredging and river management
- Land management – recognising that what happens in the upper and mid catchment has an impact on the lowlands
- Urban run-off

Mitigation actions:

- Infrastructure resilience (road, rail, sewerage, power and telecommunications)
- Building local resilience

The original plan had a total of 60 individual actions identified under the 5 workstreams. In addition there were 14 additional actions under the heading of complex, interrelated and unfunded.

In order to take the plan forward it was recognised that, a renewed, coordinated and joined-up approach to addressing flooding and resilience issues upon the Somerset Levels and Moors was required. **The Somerset Rivers Authority (SRA) emerged directly from this recognition.** The SRA was launched on January 31, 2015 to play a key role in flood protection for the whole of Somerset.

Latest status

It is almost 5 years since the original Flood Action Plan was published and almost 4 years since the SRA came into existence. It is the right time to reflect on the original plan to assess what has been achieved; what has yet to be achieved; consider whether some of the actions are still the right actions and, consider what changes need to be made to the plan to ensure it is fit for purpose into the future.

There are significant political changes underway which will shape the way in which flood risk is managed in the future. These include, but are not limited to, the Brexit process, the publication of Defra’s 25 Year Plan and forthcoming legislation such as the Agriculture Bill and the Environmental Principles and Governance Bill.

Next Steps

The Plan has been reviewed with regards to what actions have been completed; which are underway and which are yet to be started. See table A.

Workstream	No. Actions	No. Complete	%
Dredging & River Mgt	20	15	75%
Land Management	11	5	45%
Urban Run-off	8	2	25%
Infrastructure Resilience	6	6	100%

Building Local Resilience	8	6	75%
Complex, interrelated	14	6	42%
Total	67	40	60%

The more challenging piece of work will be identifying what else needs to be in the plan to deliver the shared vision of the SRA for the next 20 to 25 Years. This will require the SRA partners and stakeholders coming together to agree a shared vision for Somerset, an agreed plan that underpins that vision and a clear strategy for delivering the plan. It is anticipated this work will take several months, starting in January 2019

Phase 1 'dates'	Phase 2 'dates'	Phase 3 'dates'
<ul style="list-style-type: none"> Review the plan line by line with SRA partners (technical review) Update to reflect changes to schemes Remove items no longer relevant e.g. addressed another way Remove items deemed no longer necessary / deliverable 	<ul style="list-style-type: none"> Assess what's left against current context <ul style="list-style-type: none"> - Brexit - Government legislation - SRA Partner strategies and policies - Climate change predictions Review aims & objectives with Partners Identify the gaps short, medium, long term Draft high level plan 	<ul style="list-style-type: none"> Consult with stakeholders and wider community Update the high level plan Flesh out the detail and identify short, medium and long term priorities Draft updated FAP in consultation with SRA partners Consult with wider community on detailed plan Finalise and publish the plan

Recommendation:

The SRA Scrutiny Panel is asked to consider and comment on progress to date with reviewing the Somerset Flood Action Plan and provide any recommendations to help shape the work.

Date: 7th January 2019

Author: David Mitchell, Senior Manager, Somerset Rivers Authority

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Somerset Rivers Authority Joint Scrutiny Panel Paper

Title: SRA Precepting body – Update on progress of Rivers Authorities and Land Drainage Bill

RECOMMENDATION

The SRA Joint Scrutiny Panel is asked to:

1. Consider and comment on the latest position in relation to progress of the Rivers Authorities and Land Drainage Bill

Purpose of the item:

- To update Joint Scrutiny Panel members on progress towards securing the passing of legislation enabling the SRA to become a precepting authority.

Background and context

A meeting was held on 20th December 2017 between Dr Therese Coffey MP, Environment Minister, Rebecca Pow, MP and a representation from the SRA Board. At the meeting reassurances were given that progress was being made with signing off the contents of a draft Bill across government and an MP had been identified to present a Private Members Bill. No firm timescale were given at this meeting. The decision was taken to move the Bill as a Private Members Bill as there was unlikely to be any Government time to progress the Bill.

Current Status

Things moved quickly at the end of February 2018 when word was received that Department for Environment, Food and Rural Affairs (Defra) had secured all necessary sign-off across government and that David Warburton MP would be presenting the Rivers Authorities and Land Drainage Bill to Parliament on the 6th March (first reading). The Bill was scheduled to receive its Second Reading on 16th of March. The Bill was unsuccessful at 2nd Reading stage.

Since the 16th of March 2018 David Warburton has put the Bill forward for 4 further attempts at receiving its 2nd Reading on the 27th April, 11th of May, 15th of June and 6th of July. Unfortunately, the Bill did not pass at any of these attempts.

On each occasion the Bill was not debated as it was one of many bills due for consideration each day.

When a Bill is not debated it is possible for it to be 'noded through' at the end of the debating session; often Bills will be objected to on principle if no debate has been held. This

appears to be what has happened on each occasion with the Rivers Authorities and Land Drainage Bill.

David Warburton had resubmitted the Bill again for its 2nd Reading on the 26th of October but withdrew it as it was unlikely to succeed and also to allow some time for further discussion with Defra officials and Ministers to try to identify alternative ways of progressing the Bill or the provisions within the Bill.

On January 15th 2019 Department for Environment, Food and Rural Affairs published a consultation considering policy areas which may need modernising. For Floods and Water policy these fall into two categories, long-term planning and the regulatory framework. The consultation explicitly references the Somerset Rivers Authority as an example of new ways of funding local food risk management activities.

The consultation document also states that ***'The government proposes to secure the future of the Somerset Rivers Authority with the necessary legislation.'*** This is clearly very good news that the Government seems to be willing to take forward legislation but at this stage there is no further detail. Any action will be subject to positive responses to the consultation.

It will be important to ensure as many positive responses to the consultation as possible.

The Bill is currently scheduled to go forward for another attempt at securing its 2nd Reading as a Private Members Bill on the 8th of February.

Recommendation:

The SRA Joint Scrutiny Board is asked to:

1. Consider and comment on the latest position in relation to progress of the Rivers Authorities and Land Drainage Bill

Date: January 22nd, 2019

Author: David Mitchell, Senior Manager Somerset Rivers Authority

Agenda item	Meeting Date	Lead Officer
	01 Feb 2019 (looking forward)	
Election of Chair & Vice-Chair		Lindsey Tawse
2018/19 Progress Update (Smaller Projects)		Jonathan Hudston
Key Projects Update		Tim Burton/Iain Sturdy
2019/20 Enhanced Programme		David Mitchell
County Flooding Network		Nicola Dawson
Review of Flood Action Plan & Future Strategy		David Mitchell
Precepting Legislation Update		David Mitchell
	Summer 2019 (looking back)	
Terms of Reference		Lindsey Tawse
End of Year Report		Jonathan Hudston
Precepting Legislation Update		David Mitchell
Key Projects Update		Tim Burton/Iain Sturdy
Annual Finance Report		David Mitchell

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