

ARUN DISTRICT COUNCIL

REPORT TO AND DECISION OF ENVIRONMENT AND NEIGHBOURHOOD SERVICES COMMITTEE ON 17 NOVEMBER 2021

REPORT

SUBJECT: Annual Engineering Service Review

REPORT AUTHOR: Roger Spencer – Engineering Services Manager
DATE: 27 September 2021
EXTN: 37812
AREA: Technical Services

EXECUTIVE SUMMARY:

The report is presented as an update on the Council's Engineering Service Area and explores the issues addressed in the preceding year and outlines matters that have arisen, or are foreseen for the coming year, across the service area.

The report also seeks approval or ratification of a number of budgetary provision matters - in relation to the Community Flood Fund and the Coast Protection Revenue Budget

RECOMMENDATIONS:

That the Environment and Neighbourhood Services Committee

- 1 Recommends to the Corporate Policy and Performance Committee, additional resources of £40,000, in the Coast Protection Revenue Budget commencing in 2022/23 and for a further 4 years thereafter, to allow for shingle management works associated with West Beach and other beaches e.g. East Beach, Littlehampton.
- 2 Recommends to the Corporate Policy and Performance Committee a £180,000 contribution to the Community Flood Fund in 2022/23 and a further £100,000 in 2023/24, to enable required Partnership Contributions to continue.
- 3 Authorises the Engineering Services Manager to undertake the necessary preparatory work relating to the new Capital schemes, to make Grant in Aid funding applications to the Environment Agency accordingly and to receive and draw down related funds.

1. BACKGROUND:

- 1.1 The review covers:
- Coastal Defence
 - Land Drainage
 - Structural & General and

- Other

Coastal Defence

1.2. DEFRA / Environment Agency Matters

1.2.1. Local Authorities are tasked with finding 10% efficiency savings on EA Grant aided schemes and to get 15% Partnership Funding across the programme. The criteria for Partnership Funding (PF) are likely to change in the coming months; until now, the main 'benefit' in any cost:benefit analysis has been residential homes. There will now be an opportunity for non-residential assets to be costs e.g. commercial property and agriculture.

1.2.2. The overall concept of Partnership Funding (PF) however, remains the same: depending on its priority, a proposed scheme will usually require 3rd party / community contributions; the lower the priority, the higher the level of local contribution(s) required for the scheme to proceed. Flood Defence Grant in Aid (FDGiA) is only eligible on schemes with a cost:benefit ratio greater than 1.

1.2.3. PF will continue to feature as an important and necessary part of the scheme preparation process, as 100% Government funding is unlikely to be forthcoming for future schemes. It is likely, however, that cross-government funding (i.e. other than GiA) will be allowed in the calculations.

1.2.4. Climate Change - The Government's online guidance can be found at <https://www.gov.uk/guidance/climate-change-explained>.

1.2.5. The Department for the Environment and Rural Affairs (DEFRA) has recently published its policy for flood and coastal risk management; this is augmented by the EA's strategy for delivery of this Policy. A number of initiatives in the EA Strategy are coming forward and requiring input from Risk Management Authorities, such as Arun District Council, to achieve their intended goals and an example of this is in asset management and condition recording.

1.3. South East Coastal Group

1.3.1. The Group is Officer based but Elected Members from across the Region (usually one per authority but not limited) are welcome to attend an annual review meeting of the Regional Monitoring Programme. From this, Members from across the Group's large geographical area are better informed of the Group's work.

1.3.2. The meeting is usually late in the calendar year – due to COVID-19, the event this year was again a virtual one, held on 13 October 2021. Cllr Stanley was the Arun DC delegate for 2020 (as Cabinet Member for Technical Services) and Cllr Staniforth for 2021 (as Vice-Chair of Environment & Neighbourhood Services Committee). Neither Member was able to join their respective on-line event but both were recorded for off-line viewing.

1.4. Partnership Funding / Community Flood Fund / Local Levy.

- 1.4.1. At its meeting on 15 July, the Committee received a report regarding a financial contribution towards an Environment Agency scheme, in the form of Partnership Funding from the Community Flood Fund (CFF).
- 1.4.2. In resolving to approve that contribution, Members at that time expressed the view that the Fund should be kept replenished to enable Partnership Funding contributions to be made to schemes as they come forward. This report therefore includes a Recommendation for inclusion in the Budget for 2022/23 of £180,000 and a further £100,000 2023/24.
- 1.4.3. To date, the CFF has provided or committed to provide funding of £581k - see Appendix 1
- 1.4.4. An alternative funding method is Local Levy; this is a relatively small fund administered by the Southern Regional Flood and Coastal Committee. Local Levy is used where the strict requirements of Flood Defence Grant in Aid (FDGiA) are not met but the scheme is considered worthwhile. It is agreed with the Environment Agency which funding route is appropriate to follow; PF contributions are welcomed as part of funding Levy only schemes, which show the promoter's commitment. (see 1.6.10 relating to Local Levy bid for a study into Coastal Change Management Areas (CCMA)).
- 1.5. Coastal Monitoring
- 1.5.1. The Regional Monitoring Project provides volumetric and percentage changes of the beaches. However, these are averaged across the whole unit are typically small and can be misleading; therefore, a commentary for the most recent reported annual change (Spring '20 – Spring '21) is given below:
- 1.5.2. The Council's frontage is divided into 6 Survey Units (exc. Pagham Harbour); The geographic locations (e.g. 4dSU17.026) are shown in detail in the Interim Survey Reports 2021 (Background Papers) – a plan showing the area references (e.g. 4dSU17) is included as Appendix 2.
- Eastern Beaches (Ferring to Rustington) : Accretion covers much of the unit, with the main rates occurring at the lower foreshore. The most significant stretch of erosion has occurred between 4dSU17.026 to 4dSU17.031 (Angmering on Sea). A net gain for the unit as a whole.
 - Littlehampton : Patches of accretion and erosion, with accretion dominating. Most notable erosion occurring at 4dSU18.012 to 4dSU18.014 (Pitch & Putt to Hendon Avenue). Most notable accretion has occurred at the far ends of the unit. A small net gain for the unit.
 - Climping : Sections of accretion and erosion across the unit. Erosion occurring mostly at the back of the beach, the most significant of which occurring between 4dSU19.009 to 4dSU19.012 (W. Atherington). Accretion covering the eastern end of the unit, occurring especially at the lower foreshore. A small net gain.
 - Elmer : Patches of erosion and accretion corresponding to the rock islands, with accretion generally occurring behind the rock islands, and erosion seen

in between. A significant patch of erosion occurring behind the rock island at 4dSU20.023 (Elmer Sands). A small net loss for the unit.

- Bognor Regis (Aldwick to Middleton on Sea) : Accretion mainly covering the unit, with some smaller patches. A notable patch of accretion can be found between 4dSU21.003 to 4dSU21.005 (Shorecroft). A net gain for the unit.
- Pagham Beach (inc western part of Aldwick) : Stretches of erosion and accretion. Erosion appears to be most prevalent at the far eastern end, with a notable patch between 4dSU22.004 to 4dSU22.005 (East Front Road*). Accretion covers much of the unit, with the most significant rates at the far western end, as well as 4dSU22.014 to 4dSU22.015 (The Drive, Aldwick). A small net gain for the unit. (* East Front Road has been improving since Spring but volumetric survey data is not yet available).

1.6. Pagham Beach

- 1.6.1. The dynamic situation has been outlined in several previous reports and the situation continues to evolve. The spit naturally breached in 2016 but whilst the initial breach was about 200m wide, it widened to the extent that the root of the spit was almost back to the 2004 state (i.e. the channel flowing almost straight out to sea. However, the spit has since started to re-grow and is now in excess of 300m long (it was around 1,000m long when it breached).
- 1.6.2. With the re-growth there has been a landward migration of the outlet channel to the point where the Little Lagoon is no longer a significant feature. The scour, due to the change in shape of the outlet channel, has continued, especially over last winter, with the current trajectory there is a risk of a breach into the main Pagham Lagoon. There is, therefore, close liaison with the community and other stakeholders.
- 1.6.3. The Community has prepared a scheme and is awaiting the necessary approvals to enable a start on works to form a modest cut in the spit. There are environmental time constraints (over-wintering birds) in the highly designated area. The Environment Agency has prepared a contingency plan, in case the approvals are not forthcoming and emergency procedures have to be invoked.
- 1.6.4. The focus of attention for Arun DC has moved away from the residential property of East Front Road, the team now concentrating on providing assistance to the Community in developing its scheme. The East Front Road area continues to be regularly monitored, to make sure the improvement continues and that the standard of defence is as high as practicable going into the winter.
- 1.6.5. It is too soon to predict with any confidence what the winter of 2021/22 conditions will be; however, funding remains in place to enable modest, proactive or reactive interventions to strengthen the crest in East Front Road.
- 1.6.6. Whilst the focus area of erosion or flood risk is typically limited at any one time, the situation for Pagham Beach as a whole is clearly not sustainable financially, environmentally or technically; preparations are therefore about to start to procure a study into the implications and practicalities of introducing a Coastal Change Management Area.

1.6.7. A Coastal Change Management Area (CCMA) is a Planning mechanism and can be defined as:

An area identified in Local Plans as likely to be affected by coastal change (physical change to the shoreline through erosion, coastal landslip, permanent inundation or coastal accretion).

1.6.8. The establishment of a CCMA is not straightforward, and it should be stressed that no decision has been made to introduce a CCMA but it would be prudent to better understand, at an early date, what would be involved in the process.

1.6.9. As a CCMA is a Planning 'tool', the Planning Policy Committee has considered the matter of procuring the study (6 October 2021) and agreed that

1. The outline brief for the CCMA study be approved.
2. The timing of the study be scheduled for a start of procurement beginning October 2021, in order to accommodate the outcome of the Southern Regional Flood and Coastal Committee's decision on whether to provide extra funding and consequently, the final scope of the study.
3. delegated authority to proceed with the necessary administrative procedures and procurement processes based upon Southern Regional Flood and Coastal Committee's funding decision.
4. The guidance as set out in the report under 'Interim Approach' be used to assess the development merits of all Planning Applications coming forward on the Pagham Beach Estate.
5. The draw-down of any further Local Levy monies granted by the Southern Regional Flood and Coastal Committee be authorised for the CCMA work.

1.6.10. An EA Resilience and Innovation Flood and Coastal Programme bid was made earlier in the year, but this was unsuccessful. Accordingly, a bid has been made to the Southern Flood and Coastal Committee for Local Levy funding to extend the scope of the CCMA study – to include stakeholder engagement methodologies and making the results transferrable on a regional scale. The outcome of the bid should be known on 19th October; a verbal update will be given at the meeting.

1.7. Climping

1.7.1. Following the breach and flooding of 2019/20, the Environment Agency, which has historically maintained this frontage under flood defence powers, undertook works taking advantage of shingle available from the shingle shoal in the mouth of the River Arun, to rebuild a defensive bund some tens of metres inland of the breach.

1.7.2. The bund is performing well but it is not seen as a long-term solution. Works have been undertaken by EA to bolster the bund and to address potential vulnerabilities at the southern end of Climping Street (car park).

1.7.3. The coastal defence strategy for the area set out a policy of doing minimum whilst it was economically viable.

1.7.4. Discussions are ongoing into how best to provide a satisfactory standard of defence to the area (including Rope Walk and the Littlehampton Economic Growth Area [LEGA] development area) which has risk of flooding both from the open coast and from the river.

1.8. Revenue Works

1.8.1. The in-house Tree & Maintenance Team's (TMT) overall costs include an allowance for day-to-day revenue works to be undertaken – approx. 30% of their time. Any materials required and external Contractors' costs are financed from the limited Coast Protection revenue budget.

1.8.2. The TMT has again endeavoured to provide the first line response for reactive repairs and planned maintenance, carrying out mainly repairs and refurbishment of the timber groyne field. The use of local contractors, where specific skills and/or equipment are required, would be utilised as necessary but the workload of such contractors has remained high leading to high costs and long lead-in times.

1.8.3. In recent years, the Littlehampton Harbour Board (LHB) has needed to move shingle from the river and from adjacent to the Westworks, to help reduce the risk of navigation hazards in the river and/or failure of the Westworks structure. Whilst this is a LHB function, there is a financial risk to the Council due to the financial precepting arrangements with the Littlehampton Harbour Board.

1.8.4. CMT considered a proposal to proactively manage shingle in front of the dunes to better manage the issues at the Westworks; it was agreed by CMT that this should be funded by seeking an increase to the Coast Protection Revenue budget.

1.8.5. The material lifted from the river or from in front of the dunes has to be removed off-site (due to environmental constraints); other partners can make beneficial use of the material within the coastal system but it also becomes available to be placed on other beaches e.g. Littlehampton East Beach, where a potential weakness has recently been identified.

1.8.6. It is recommended that the Coast Protection Revenue budget be increased £40,000 pa from 2022/23 for 5 years to fund the work in the foregoing two paragraphs. Following this period, it is anticipated that the way forward for a LHB Westworks scheme, potential East Beach regeneration proposals and a capital scheme to improve the coastal defences on East Beach should be clearer and potentially come forward in a complimentary scheme.

1.9. Capital Works

1.9.1. Three phases of a largely EA funded Beach Erosion Management Plan (as recommended in the Arun/Pagham Coastal Defence Strategy) have been undertaken – a final phase is planned later this year for Middleton on Sea. This involves a short length of steel sheet piling to safeguard a section of the seawall toe at Old Point.

1.9.2. Preparatory works for a Groyne Replacement Scheme are in hand, with works at Aldwick planned to start next financial year, subject to EA approval; two smaller schemes have been combined into one, to realise efficiency savings.

1.9.3. A scheme will be put forward for inclusion in the EA's capital programme. To deal with the potential weakness and then the comprehensive scheme at Littlehampton East Beach. There is no firm proposal for this at present, other than the temporary shingle management activity mentioned above at 1.8.6

1.10. **Land Drainage**

1.10.1. The Council has a responsibility, under the Land Drainage Act 1991, to maintain watercourses on its land and where it is the riparian owner. It also works with West Sussex County Council (as the Local Lead Flood Authority – under the Flood and Water Management Act 2010) on consenting and enforcement activities in relation to land drainage.

1.10.2. Officers also provide advice to residents and landowners – this involvement has increased due to the changes brought about in the Internal Drainage Boards arrangements – see below (1.14).

1.10.3. Strategic input to the process of land drainage management is also made possible through the operational and strategic officer groups chaired by WSCC (the West Sussex Flood Risk Management Group and Board respectively).

1.11. **Drainage Plans and Strategies:**

1.11.1. A number of Drainage Area Plans are being prepared by Southern Water Services, looking predominantly at the foul sewerage system for localised areas.

1.11.2. There are other Studies and work schemes are dealing with:

- Angmering (Black Ditch): being progressed by WSCC.
- Aldingbourne: being led by EA
- Elmer Surface Water Management Plan (SWMP): being led by WSCC
- Lidsey SWMP - Being led by WSCC (previously by EA).

1.12. The West Sussex Flood Risk Management Group/Board has initiated a prioritised list of works across the County; Arun's entries on the list are being addressed on an individual basis. This is not an ideal situation and it makes the allocation of the Council's Community Flood Fund (above) difficult.

- 1.13. Minor Works : Engineering staff continue to support Town and Parish Councils, as well as Flood Action Groups, in respect of schemes funded as part of the WSCC Operation Watershed. They also work with other flood risk authorities to promote flood relief schemes
- 1.14. Internal Drainage Boards (IDBs):
- 1.14.1. The background to the Internal Drainage Boards was provided in the 2020 Annual Engineering Review report. In summary, the South West Sussex Board has been dissolved and the future of the River Arun Board is not yet resolved.
- 1.15. Sustainable Drainage Systems (SuDS).
- 1.15.1. These should feature heavily in the surface water disposal design of new developments coming forward – from just a single house to many thousands of units (proportionally applied). The drainage team offer advice and consultation responses to the Development Control Team – this is a vital part of the team's work if flooding is to be avoided in the future.
- 1.15.2. In line with Council's Housing Allocation figures, there has been, and will be, a relatively large number of larger developments coming forward. These are often subject to difficult groundwater and surface water disposal conditions and so there is a demand on the Drainage Team to ensure that any Approvals are properly conditioned.
- 1.15.3. This can be challenging, as winter groundwater monitoring is crucial; when the winter monitoring results are arrived at by the developers, the discharge of condition applications tend to arrive together shortly after, creating a backlog in demand of consultation responses
- 1.16. Structural & General
- 1.16.1. The Section continues to undertake a range of tasks for other Internal and External Services:
- 1.16.2. Structural Calculation checking for Building Control – a cost effective and flexible arrangement that ensures a suitable level of checking is applied to structural calculations submitted as part of Building Control submissions.
- 1.16.3. As and when resource allows, a checking service is provided to Horsham District Council, Worthing & Adur Councils on a rechargeable basis.
- 1.16.4. Structural advice is also provided to other internal services e.g. Housing; with provision of timely advice to Housing Repairs and Planned Maintenance on a range of issues that arise.
- 1.16.5. Street lighting management (no budget holding) – covering car parks, housing sites and others; oversight of Arun's lighting assets – these are maintained by the WSCC framework contractor.
- 1.16.6. Play Area inspections (no budget holding) – in Public Open Spaces, Housing sites and some Town and Parish areas (approx. 400 in total). Currently. The

routine/visual are be included in the Parks Maintenance Contract but the 'operational' inspections, which are more detailed and comprehensive, are undertaken by Engineering staff trained in this type of work, to ensure that safety and insurance cover are maintained.

1.16.7. Bus Shelters (no budget holding) – there are three main shelter provisions Arun, Parish Council and Clear Channel (approx. 100 in total). Engineering Services provides a point of contact for enquiries and liaises with Property and Estates for the maintenance of the Arun operated shelters and passes on comments relating to Parish shelters. The Clear Channel shelters are operated independently by the company and funded by advertising within the shelters.

1.16.8. The Team also provides assistance to other internal Services (e.g. Car Parks), for the production of maps and record drawings and undertaking some inspections.

1.17. **Other**

1.17.1. Members of the Engineering Services team also utilise their design, management and supervisory skills to input to other ad hoc Council projects e.g. from smaller projects and feasibility study (e.g. beach access and skate parks) to the new Littlehampton Wave, as well as representing Arun DC on various working and focus groups e.g. the A27 Improvements for Arundel (Highways England). Assistance is also being provided to Residential Service's Warm Home Project.

1. PROPOSALS:

It is proposed that the Environment and Neighbourhood Services Committee

- 1 Recommends to the Corporate Policy and Performance Committee, additional resources of £40,000, in the Coast Protection Revenue Budget commencing in 2022/23 and for a further 4 years thereafter, to allow for shingle management works associated with West Beach and other beaches e.g. East Beach, Littlehampton.
- 2 Recommends to the Corporate Policy and Performance Committee a £180,000 contribution to the Community Flood Fund in 2022/23 and a further £100,000 in 2023/24, to enable required Partnership Contributions to continue.
- 3 Authorises the Engineering Services Manager to undertake the necessary preparatory work relating to the new Capital schemes, to make Grant in Aid funding applications to the Environment Agency accordingly and to receive and draw down related funds.

2. OPTIONS:

Funding

Not to approve/ratify the various virements and budget provisions thus accepting the various identified increased risks.

4. CONSULTATION:		
Has consultation been undertaken with:	YES	NO
Relevant Town/Parish Council		✓
Relevant District Ward Councillors		✓
Other groups/persons (please specify)		✓
5. ARE THERE ANY IMPLICATIONS IN RELATION TO THE FOLLOWING COUNCIL POLICIES: (Explain in more detail at 6 below)	YES	NO
Financial	✓	
Legal		✓
Human Rights/Equality Impact Assessment		✓
Community Safety including Section 17 of Crime & Disorder Act		✓
Sustainability	✓	
Asset Management/Property/Land	✓	
Technology		✓
Other (please explain)		✓
6. IMPLICATIONS:		
<u>Financial</u>		
<ul style="list-style-type: none"> • A recommendation to Corporate Policy and Performance Committee for growth of £40,000 per annum from 2022/23 to 2026/27 to allow for shingle management works associated with West Beach and other beaches. The growth if approved will be added to the Medium Term Financial Plan; • The recommendation for replenishment of the Community Flood Fund in 2022/23 and £100,000 in 2023/24 budgets is a transfer from General Fund to an Earmarked Reserve. Members should note that it is likely that Corporate Policy & Performance Committee will have to make recommendations to Council on items to be included or rejected from the 2022/23 budget when considering the overall budget for 2022/23 		
<u>Sustainability</u> All coastal defence works should be undertaken in the most sustainably manner practicable		
<u>Asset Management</u> It is important to manage and record the condition of assets		

7. REASON FOR THE DECISION:

To ensure works are planned and resources are used sustainably to manage flood and erosion risk in the District.

8. EFFECTIVE DATE OF THE DECISION: *Committee Services to insert*

9. BACKGROUND PAPERS:

Appendix 1 Funding provided, or committed to be provided, from the Community Flood Fund

Appendix 2 Plan showing Monitoring Areas (further detail within Interim Survey Reports 2020 – below)

Equalities Impact Assessment

Links also provided in body of the report:

Interim Survey Reports 2020 <https://coastalmonitoring.org/reports/#southeast> (full report)

Planning Policy Committee 6 October 2021

[https://democracy.arun.gov.uk/documents/g1458/Public reports pack 06th-Oct-2021 18.00 Planning Policy Committee.pdf?T=10](https://democracy.arun.gov.uk/documents/g1458/Public%20reports%20pack%2006th-Oct-2021%2018.00%20Planning%20Policy%20Committee.pdf?T=10) – Item 8

Appendix 1

Funding provided, or committed to be provided, from the Community Flood Fund

Scheme	Arun PF Contribution £k	Scheme Promoter
Pagham Inland Banks	40	EA
Elmer Ph1 Flood Alleviation Scheme	40	EA
Arundel Flood Defences	96	EA
Watercourse Management	20	ADC
Western Beach Management	40	ADC
Post Storm Elmer	15	ADC
Peak Lane Drainage	10	ADC
Groyne Replacements	75	ADC
Beach Management 2	40	ADC
Angmering Flood Alleviation	50	WSCC
Rustington Flood Wall	80	ADC
Elmer Ph2 Flood Alleviation Scheme	40	EA
Supplements to R&M	35	ADC
Total	581	

Appendix 2

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Arun District Council 100018487 2021

