

PAPER D

Purpose : For Information

Committee: **SOUTHERN COASTAL GROUP and SCOPAC**

Date: **MARCH 2022**

Title : **RESEARCH PROGRAMME**

REPORT OF THE CHAIRPERSON OF THE SCOPAC RESEARCH SUB-GROUP

1 CURRENT RESEARCH

1.1 RESEARCH PROGRAMME 2015 - 2020

The 2015 – 2020 SCOPAC Research Programme was prioritised by the Southern Coastal Group at the meeting on the 4th September 2015 and approved by SCOPAC at the meeting on the 18th September 2015. It was amended to reflect changing priorities and was endorsed by SCOPAC on the 27th January 2017. The programme is presented below with live projects being finalised in black text. These will be completed and outputs uploaded onto the www.southerncoastalgroup-scopac.org.uk website this financial year.

Annual expenditure	Carried over	£24,200	£8,100	£32,700	£15,741	£17,459	TOTAL project allocation
Research/project	Financial Yr						
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	
Dismantling Timber Groynes							£10,000
Scour project (minor fund 2015-2017)							£4,000
Pagham tracer minor project (minor fund 2015-2017)							£2,000
Historical photography scanning							£13,000
Landfill study							Levy funded
Vegetated shingle project							£5,000
Preston tracer study							£7,000
CIRIA Groynes in Coastal Management							£5,000
SURGEWATCH							£2,000
Tracer study co-ordination							£2,700
Storm analysis							£25,000
Minor fund projects (2018 - 2020)							£17,000
Bradbury's bursary							£1,500
Improved utilisation of data							£4,000

Figure 1: SCOPAC 5-year research programme 2015 - 2020

1.2 RESEARCH PROGRAMME 2020 - 2025

The current 5-year SCOPAC Research Programme was prioritised by the SCOPAC Research sub-group at the meeting on the 18th October 2019 and endorsed by the SCG and SCOPAC at the meeting on the 2nd June 2020. The programme is presented in Figure 2 with some projects showing a carry over to 2021/22.

Annual expenditure	£20,000	£20,000	£20,000	£20,000	£20,000	Project cost	SCOPAC contribution	Other potential contributions/funding sources
Research/project	Financial Year							
	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025			
Bradbury's bursary	£500	£500	£500	£500	£500	£2,500	£2,500	N/A
Improved utilisation of data	Sand dunes	Remote sensing	Dependent on released funds			£5,000	See below	N/A
SURGEWATCH contribution	£500	£500	£500	Dependent on released funds		£1,500	£1,500	N/A
Minor projects								
Ebb deltas Phase I - scoping	£4,000					£5,000	£4,000	BMP
Cathodic Protection Performance	£4,000					£7,500	£4,000	ICE or CIRIA
Acoustic tag trial	£4,000					£12,000	£4,000	BMP
Remote Sensing	£1,000					£4,500	£1,000	CCO
Sand Dune Development	£1,000					£5,000	£1,000	BMP
West Bay Sediment Transport		£4,000				£20,000	£4,000	BMP
Removing Assets			£4,000			£5,000	£4,000	ICE or FCERM R+D
Medmerry Managed Re-alignment				£4,000		£25,000	£4,000	FCERM GiA/FCERM R+D
Vegetated Shingle study Phase II	Dependent on released funds from Protecting Heritage, Ebb delta II or Storm Analysis II					£7,000	TBC	BMP
SCOPAC Landfill champion	Dependent on released funds from Protecting Heritage, Ebb delta II or Storm Analysis II					£5,000	TBC	N/A
Major projects								
Bibliographic database - scanning and update	£5,000	£3,000	£2,000			£10,000	£10,000	N/A
Protecting heritage		£12,000	£3,000			£75,000	£15,000	Local Levy
Ebb deltas Phase II - analysis			£10,000	£5,000		£30,000	£15,000	N/A
Potential impacts of dredging in the SCOPAC region				£10,500	£4,500	£30,000	£15,000	Crown Estate/Local Levy
Storm analysis Phase II - Impacts					£15,000	£30,000	£15,000	Local Levy or FCERM R+D
SE Regional Monitoring Programme - where are we now ~20 years on?				Dependent on released funds from Protecting Heritage, Ebb delta II or Storm Analysis II		£50,000	TBC	Combination of SCOPAC and CCO?
Major major!								
SCOPAC wide numerical model				FCERM GiA?		200000?		FCERM GiA?
SCOPAC STS update (2012 - 2022)				FCERM GiA?		150000?		FCERM GiA?
Other ideas								
Testing alternative timber species for sustainable groyne construction in the UK	Dependent on released funds from Protecting Heritage, Ebb delta II or Storm Analysis II					£50,000	TBC	ICE fund, FCERM R+D or GiA
Are 'catch up' rates in RACE method appropriate given we have ~15 years SE monitoring data plus SCAPE research.	Dependent on released funds from Protecting Heritage, Ebb delta II or Storm Analysis II					TBC		FCERM R+D?
Use of USV for collection of nearshore bathymetry	Additional information required.							
SCOPAC Historical photography geo-rectification	Additional information required.							
TOTAL COST PER YEAR	£20,000	£20,000	£20,000	£20,000	£20,000		£100,000	

Figure 2: SCOPAC 5-year research programme 2020 - 2025

Recommendation: For information

1.3 RESEARCH UPDATE

Figure 3 presents an overview of progress for each live project.

Ref.	Priority	Progress	Action	Why is this needed?	What will success look like?	Lead Officer/s	Critical Support	Start Date	Target Completion Date	2021/22 Resource £	Comments + Outcomes Actually Delivered? Notes	
Coastal Research & Monitoring										£38,706		
Research Chair		High	On Target	To oversee and co-ordinate SCOPAC research	To co-ordinate the SCOPAC 5 year research programme and ensure SCOPAC have the ability to assess and investigate research issues of relevance to the region	Research delivered to time and cost. Best value for money realised (i.e. contributions to national research).	Sam Cope	RSG	Ongoing	Ongoing	£8,500	£5000 from SCOPAC subscriptions, £3,500 from Levy bid. The Research chair continues to co-ordinate the current 5 year research programme, organising a spring and autumn Research sub-group meeting, disseminating updates on research at coastal group meetings and reviewing completed research. There are currently seven projects being reviewed, ready to be disseminated on the coastal group website and via research webinars. The spring RSG meeting will be held in May.
		Medium	On Target	Grants and bursaries	To award a Bradbury bursary every year to support a master's student	Research findings of benefit to SCOPAC in terms of enhancing coastal processes, engineering or environmental understanding.	Sam Cope	Ivan Haigh	Ongoing	Ongoing	£500	After reviewing submissions for the Bradbury's Bursary, unfortunately there wasn't an eligible research project satisfying the main criteria for this financial year. We're hopeful to award the bursary next year.
		Low	On Target	SURGEWATCH contribution	To ensure website is maintained and members and officers are updated annually	Fully functional, up to date website with an update to the group from Dr Ivan Haigh	Sam Cope to report	Ivan Haigh	Ongoing	Ongoing	£500	Dr Ivan Haigh provided a presentation to SCOPAC in January 2019 which has been uploaded onto the SCOPAC website https://scopac.org.uk/research/surgewatch/ . Dr Haigh presented his latest findings on sea level rise as part of the SCOPAC Storm Analysis project (https://southerncoastalgroup-scopac.org.uk/scopac-research/scopac-storm-analysis-study/) and provided another excellent update in January 2022 (https://southerncoastalgroup-scopac.org.uk/conferences/january-2022-research-webinar/).

		Medium	On Target	Improved utilisation of data x2 projects 2020-2022: Sand dune project (BCP); Remote sensing project (CCO)	To make best use of regional monitoring data and other data available to SCOPAC officers	Increased understanding of coastal processes demonstrating importance of regional monitoring programme data	Charlie Thompson and Alan Frampton	RSG	May-20	Mar-22	£0	<p>Two projects awarded for 2020/21 and 2021/22 funds.</p> <p>1. Sand Dune Study (Lia Bennett/Alan Frampton/Matt Wadey) COMPLETE</p> <p>Comment from AF 25th Jan 2021 - Sand dune study is complete. Report added to coastal group website (https://southerncoastalgroup-scopac.org.uk/scopac-research/utilising-rcomp-data/) . Findings presented to SERCMP AGM and SCOPAC RSG meetings in Autumn 2020. This work was invoiced at end of last FY 2019/20; BCP has already received payment.</p> <p>2. Remote Sensing study (Charlie Thompson) - To assess whether remote sensing data are of sufficient resolution to allow calculation of beach volume or morphology to sufficient certainty that they be used in conjunction with CCO monitoring data to allow higher temporal resolution beach volume calculations. The wider project is ongoing.</p>
Major projects		High	Early Warning	Bibliographic database scanning	To scan valuable papers and documents held at the University of Portsmouth from previous updates of the SCOPAC BD and STS.	To 'scan' as many of the valuable paper copies of historical coastal management papers and documents before they are discarded.	Sam Cope to report	David Carter/Malcolm Bray	Aug-20	Mar-23	£3,000	<p>Delay starting due to COVID-19. The scope has been developed and the original authors are on guard to start the project once they can access the box files at the University of Portsmouth. Surplus funds carried over to 2021/22 and to be carried over to 2022/23. Total for the project is £10,000.</p>
		High	Early Warning	Protecting Heritage	There are a significant number of designated heritage assets within the SCOPAC region that have historically benefitted from flood and erosion protection or themselves directly perform a coastal defence function. Many of these nationally	The project primarily aims to raise the profile of this issue, particularly the apparent lack of funding and/or strategy to deal with the problem. The scope of the project is to identify heritage assets at risk of flooding/erosion in the region, as well as the possible funding sources. The project is	Gavin Holder/Sacha Neil	Sacha	Aug-21	Aug-23	£12,000	<p>Up to £4k/£12k of SCOPAC funds being used to develop a scope and submit a joint Southern and Wessex RFCC levy bid Jan 2022. The levy bid was approved by Wessex RFCC and was accepted by the first Southern RFCC meeting. It will be presented at the main meeting on the 6th April. Surplus to be carried forward to 2022/23 for RSG to re-allocate. Potential contribution towards SCOPAC STS update (TBC).</p>

				<p>significant assets are at direct risk of flooding and erosion, with potential for loss or damage to irreplaceable Scheduled Ancient Monuments, listed buildings / structures and conservation areas. As far as protection of heritage assets is concerned, SMPs are aspirational as there is no appropriate funding mechanism specific to protecting heritage assets or responding to the increased costs associated with works to / adjacent to them.</p>	<p>engaged in communicating this issue to the coastal engineering and flood management community, as well as politicians and other decision-makers. A series of case studies will be investigated to draw out site specific issues and lessons learned.</p>						
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	Minor projects		Low	Early Warning	2018 - 2020 Minor Projects - x3	A contribution towards three wider research projects.	Three individual projects delivered by March 2021, meeting project scope.	Sam Cope to report	Alex Hillawi, Ivan Haigh, Jo Brooksbank	Apr-18	Mar-22	£0	<p>All three projects now finalised from the previous programme:</p> <ol style="list-style-type: none"> 1. Poole Harbour tide gauge digitising (Ivan Haigh) - Final report and presentation on coastal group website (https://southerncoastalgroup-scopac.org.uk/scopac-research/digitising-the-poole-harbour-tide-gauge/ and https://southerncoastalgroup-scopac.org.uk/conferences/january-2022-research-webinar/). 2. Langstone Harbour tracer study (Alex Hillawi) - The final report has been reviewed and is being uploaded to the coastal group website. Results will be presented at a future Research webinar. 3. Healthy Estuaries 2020 (Jo Brooksbank) – Research changed direction from original plan to apply the Healthy Estuaries Tool to Chichester Harbour. A detailed condition assessment was produced instead, which may have significant implications for the Solent PSA target and PSA targets across the coastal group. Angela Marlow from Natural England provided an update on this at the October coastal group meeting. The report is currently being uploaded to the coastal group website. SCOPAC contributed £2,000 out of the original £4,000 in support of the data collection and analysis for the condition assessment. The extra £2,000 was used to co-supervise a Master's student from Exeter University who produced an inventory of latest cliff and landslide movements across the SCOPAC region. The thesis is currently being uploaded onto the coastal group website.
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	Low	On Target	Cathodic Protection	<p>If steel sheet piles are to continue to be the preferred way of managing coastal flood risk in these areas into the longer-term, then there is a need to understand how the scheme design life of these assets can be extended beyond current day levels using cathodic protection so as to maximise investments.</p>	<p>The output of this research will be a technical report that shares the findings and lessons learnt from achieving the research aim and objectives in a way that can be used to inform future decisions by RMAs when considering future wall replacement options and ongoing maintenance levels. It will also identify current gaps in knowledge where further research would be helpful.</p>	Alan Frampton	RSG	Apr-20	Mar-22	£2,320	Project underway and draft report being prepared. Surplus funds were carried over to 2021/22.
	Low	Early Warning	Acoustic tags	<p>To better understand the interaction between the nearshore zone and adjacent beaches.</p>	<p>The aim of this proposal is to create a novel acoustic tagging method to allow for direct measurement of the movement of subsea sediment within the nearshore zone. If successful, this technique could be applied to provide certainty on movement between the nearshore zone and adjacent beaches for Beach Management Plans. There will be an ESCP trial, followed by a SCOPAC contribution</p>	Sam Cope report	Sacha Neill	Aug-20	Aug-23	£4,000	The Coastal Partners in-house trial took place down at Eastney beach this August. The data collected has been sent off for analysis. Following a successful trial, the SCOPAC work will take place in 2022/23. Surplus funds to be carried over to 2022/23.

