

Secretary: Havant Borough Council
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13 March 2017

Dear Sir or Madam

SOUTHERN COASTAL GROUP

Date: 17 March 2017

Time: 10.00 am

Place: Hollybank Room, Public Service Plaza, Civic Centre Road, Havant, Hants
PO9 2AX

Please see the attached location map showing Havant Station, routes to Havant Public Service Plaza and location of car parks. If you are unable to attend please contact Nicholas Rogers as soon as possible by e-mail or telephone.

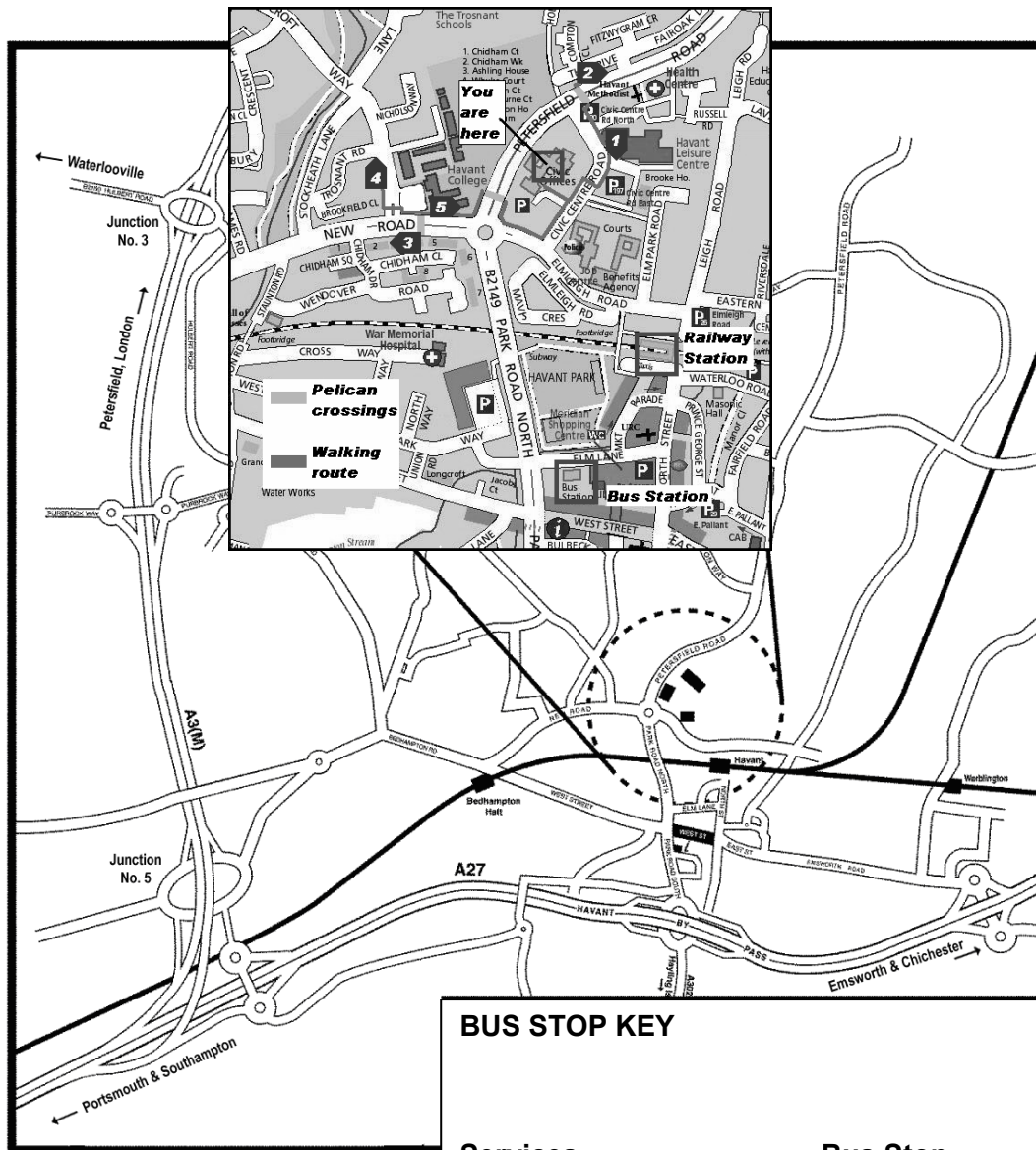
Yours faithfully

Nicholas Rogers
Havant Borough Council

AGENDA

- 1 Apologies
- 2 To confirm the minutes of the meeting of the Southern Coastal Group held on 9 December 2016 (Paper A) (Pages 1 - 6)
- 3 Chairman's Update (Presentation)
- 4 National Update - Nick Hardiman (Presentation)
- 5 Geobags Case Study - Nick Gray (Presentation)
- 6 R&D Update - Sam Cope (Paper B) (Pages 7 - 12)

- 7 Coastal Monitoring Report - Stuart McVey (Paper C) (Pages 13 - 14)
- 8 SMP Plan Updates - Mark Stratton
- 9 SCG Programme Management Tool - Mark Stratton
- 10 Coastal Group Yammer - Uwe Dornbusch (Demonstration)
- 11 Location for SCOPAC Visit
- 12 Update from Members



BUS STOP KEY

Services	Bus Stop
20, 21, 39, 63	1
20, 21, 36**, 39	2
23, 36**	3
23, 27**, 37	4
23, 27**, 36**, 37	5



Havant
BOROUGH COUNCIL

Public Service Plaza
Civic Centre Road
Havant
Hampshire PO9 2AX

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HAVANT BOROUGH COUNCIL

At a meeting of the Southern Coastal Group held on 9 December 2016

Present:

Dr Ken Buchan, Dorest County Council
Mr Lyall Cairns, Eastern Solent Coastal Partnership
Steve Cook, New Forest District Council
Dr Samantha Cope, Eastern Solent Coastal Partnership
Mr Bryan Curtis, Worthing Borough Council
Mr Mike Goater, Purbeck District Council
Nick Gray, Environment Agency
Ivan Haigh, University of Southampton
Dr David Harlow, Bournemouth Borough Council
Dominic Henly, Chichester District Council
Mr Matt Hosey, Eastern Solent Coastal Partnership
Matthew Penny, Dorset Council Partnership
David Picksley, ESCP
Emma Rendle, HR Wallingford
Mr David Robson, Borough of Poole Council
Mr Stuart Terry, Borough of Poole Council
Mr Neil Watson, Environment Agency
Mr Gordon Wilkinson, Eastleigh Borough Council
Mr Steve Woolard, Christchurch Borough Council

101 Apologies

Apologies for absence were received from Nick Lyness, Mike Cowling, Tim Adams, Nick Williams, Stuart McVey, Angela Marlow, Jenny Jakeways, Stevyn Ricketts and Grant Armfield.

102 To confirm the minutes of the meeting of the Southern Coastal Group held on 23 September 2016 (Paper A)

RESOLVED that the minutes of the meeting of 23 September 2016 be set as a correct record.

103 Chairman's Update on Coastal Issues (Paper B)

The Chairman introduced the update papers from the Environment Agency and outlined activity since the previous Group meeting. The outline included the following key points:

- Coastal Group Issues – Coastal Group Chairs were asked to detail high priority issues at national meetings in November. Issues identified by the Chairman included land-fill erosion, SMP Action Plans and erosion benefits and priority scoring. Officers discussed Local Levy funding and how this could be used to support a wide range of studies. It was suggested that the Group could bid for levy funding to use to support the NERC / Wessex RFCC / Southern RFCC funded project on the protection of landfill sites.
- Review of Coastal Group Terms of Reference – Questions had been raised at coastal chair meetings on whether coastal issues were being fully represented at RFCC level and whether suitable succession planning was in place.
- SMP Web Hosting – Proposals had been submitted to improve accessibility and clarify of coastal information on the web.
- Coastal Adaptation: Defra Working Group Activity – Defra / EA had progressed the work undertaken to set out the barriers to local authorities delivering adaptation. Specific focus had been given to those people directly disadvantaged by erosion.
- Review on Major Coastal Floodings – Major Incident Plans had been completed assessing the impact of major storm surges on coastal regions in the UK and figures on the potential effects on properties, people and transport infrastructure had been produced. Officers challenged the figures for the south coast as concerns were raised on asset data for the region.
- Marine Plan Consultation – A strategic response to the consultation from the Group would be submitted prior to the deadline of 27 January.
- National Flood Resilience Review – The report had been published and included information on extreme rainfall, the effects of climate change and the impact of infrastructure resilience.

104 HR Wallingford (James Sutherland and Emma Rendle - Paper C)

The Chairman invited Dr Emma Rendle to deliver a presentation to the Group on the work that HR Wallingford were undertaking. The presentation detailed the following projects:

- State of the Nation coastal loading data set
- Modelling for beach management
- Project for US Army Corps of Engineers to examine UK experience with natural and nature based features.

Officers discussed potential areas in the region that could contribute to the natural and nature based features study. It was agreed the HR Wallingford questionnaire would be shared amongst officers.

105 Feedback on Business Planning Workshop, 9 November

The Chairman updated the Group on the topics covered at the Business Planning Workshop on 9 November.

The main area for discussion was the updates to the SMPs and Action Plans. The Group were shown the updated documents and considered the priorities that had been identified within the plan. It was hoped the plan would act as a central resource for the Group.

It was agreed that officers would send any projects for inclusion on the SMPs to Lyall Cairns. It was also suggested that the Chairman present the SCG SMP Action Plans at national coastal chair meetings.

106 Coastal Monitoring Update (Paper D)

The Chairman invited Steve Cook to introduce the report to officers and give an update on the Southeast Regional Coastal Monitoring Programme.

Officers were informed that the contract for the maintenance of the waverider buoys was due to go out to tender in January and GeoData had been awarded the Data Management contract for the CCO website.

107 Presentation of 'Surgewatch' (Ivan Haigh)

The Research Chair invited Dr Ivan Haigh from University of Southampton to deliver a presentation to the Group on Surgewatch. Surgewatch is a collation of coastal flooding events in the UK for the last 100 years, instigated by the recent storms that had affected the area, and was designed to provide a comprehensive coastal flooding database.

The presentation highlighted data and analysis on still water levels and skew surges collated from the last 100 years and the number of storm events in that time. It was intended the information would be used to inform future responses to similar storm events.

Officers discussed presenting an item on Surgewatch at a SCOPAC meeting and highlighting as part of national coastal network meetings. Officers also discussed recommending to SCOPAC that £500 be agreed to be allocated to Surgewatch to fund website domain renewal.

RESOLVED that SCOPAC be recommended to allocate £500 per annum to Surgewatch to fund website domain renewal.

The meeting was adjourned at 11.55 and reconvened at 12.09

108 Asset Coast Workshop, 16 November (Paper E)

The Chairman introduced the paper on the Asset Data Workshop held on 16 November 2016 and outlined the content of the session. Officers discussed the proposed plan of action for collating and managing coastal asset data and it was highlighted that it would be important to complete a baseline survey prior to any equipment being purchased.

Officers endorsed the proposed approach and agreed that a further workshop be arranged for Wednesday 11 January to develop a system specification.

109 Research Report (Sam Cope - Paper F)

Dr Samantha Cope gave an overview of the current research programme and highlighted new studies for consideration.

The Group considered proposals from the research sub-group to reallocate funds for the following projects:

- Reallocate £10,000 from the Maintenance of Timber Groynes guide to Contaminated Land study
- Reallocate £5,000 from the Maintenance of Timber Groynes guide to use as an 'in kind' contribution to the CIRIA guide.
- Reallocate £2,000 from the Mixed Sand and Shingle budget to the historical aerial photography project – it was agreed that David Harlow would lead on Phase 2 of this project.
- Reallocate £8,000 from the Mixed sand and Shingle budget to the Minor Fund Projects.

The following new studies were discussed:

- SCOPAC wide tracer study – A number of organisations were interested in using the ESCP tracer method. The £5,000 SCOPAC cost would enable co-ordination of studies across the SCOPAC region.
- SCOPAC wide storm analysis – The study into storm events across the SCOPAC region would summarise the impact and investigate the hydro-dynamics of the recent stormy winters of 2013/14 and 2015/16. Scoping for the study was underway and all funding options would be considered. Design guidance for mixed sand and shingle beaches – SCOPAC Research Chair was investigating alternative funding options.
- Surgewatch - £500 per annum proposed to fund website domain renewal.

Officers discussed the Solent Forum BuDs project and where the project should be categorised in the Group's priorities. It was agreed that the project was not to form part of the RSG work programme. Officers were interested in phase 2 of the project for the operational outputs but felt that phase 1 of the project mirrored similar exercises already completed. It was agreed the proposal would need to be reshaped to incorporate phases 1 and 2 in a single phase for the Group to consider.

RESOLVED that SCOPAC be recommended to re-allocate funds as below:

- a. Reallocate £10,000 from the Maintenance of Timber Groynes guide to Contaminated Land study
- b. Reallocate £5,000 from the Maintenance of Timber Groynes guide to use as an 'in kind' contribution to the CIRIA guide.
- c. Reallocate £2,000 from the Mixed Sand and Shingle budget to the historical aerial photography project – it was agreed that David Harlow would lead on Phase 2 of this project.
- d. Reallocate £8,000 from the Mixed sand and Shingle budget to the Minor Fund Projects.

RESOLVED that SCOPAC be recommended to approve the research programme.

110 Completion of the SCG Programme Management Tool

The Chairman invited Lyall Cairns to introduce the item and discuss the updates to the SCG Programme Management Tool. Lyall presented the tool to the Group in its current format and requested all officers to submit completed spreadsheets to enable the tool to be fully representative of the SCG region.

It was agreed that a deadline of 31 January be set for completed spreadsheets to be sent to Lyall Cairns.

111 Update from Members

Bryan Curtis informed the Group of a RFCC Development Day on Coastal Matters scheduled for Tuesday 14 February 2017. The session was intended to raise the profile of the coastal group's work to the RFCC and support was requested from officers to deliver and present at the event.

Officers discussed the proposed layout of the session and topics to be highlighted to the RFCCs. It was agreed that any officer interested in contributing would contact Bryan Curtis.

112 Confirmation of Dates for Next Year

The Group agreed to set the following dates for 2017:

- 17 March 2017 – 10am
- 9 June 2017 – 10am
- 15 September 2017 – 10am
- 15 December 2017 – 10am

The meeting commenced at 10.00 am and concluded at 1.12 pm

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PAPER B

Purpose : For Discussion

Committee: **SOUTHERN COASTAL GROUP**

Date: **MARCH 2017**

Title : **RESEARCH PROGRAMME**

REPORT OF THE CHAIRPERSON OF THE SCOPAC RESEARCH SUB-GROUP

1 CURRENT RESEARCH PROGRAMMES

1.1 RESEARCH PROGRAMME

The original 5 year 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 has since been amended to reflect changing priorities and was endorsed by SCOPAC on the 27th January 2017 (Figure 1).

Annual allocation	£21,500	£22,000	£27,000	£27,000	£27,000	TOTAL project allocation
Research/project	Financial Yr					
	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	
CIRIA Groynes in Coastal Management						£5,000
Dismantling Timber Groynes						£10,000
Scour minor project						£4,000
Pagham tracer minor project						£4,000
Contaminated land						£25,000
Design guidance for mixed sand and shingle beaches						N/A
Ebb deltas						£15,000
Historical photography scanning (1,000 images)						£13,000
Vegetated shingle project						£5,000
Low height seawalls						£13,500
Preston tracer study - minor fund 2017/18						£5,000
SURGEWATCH						£2,000
Tracer study co-ordination						£15,000
Storm analysis						Dependent on surplus funds
Minor fund projects (TBC)						£8,000

Figure 1: Revised SCOPAC 5 year research programme

Recommendation: For information

1.2 SCOPAC MINOR PROJECTS FUND (2015/2016 AND 2016/2017)

Following the Southern Coastal Group meeting in December 2014 it was agreed that SCOPAC would benefit from funding the following two Minor Projects for 2015/2016 and 2016/2017.

Dr Uwe Dornbusch (Environment Agency): Establishing shingle transport pathways from the sub-tidal to the beach: Church Norton Spit

Minor contribution of £4,000

Church Norton Spit at Pagham Harbour, West Sussex has accreted by approximately 100,000m³ of material in the past 10 years, making it one of the largest accreting features across the SCOPAC region.

The origin of the material is unknown; therefore this study will investigate whether the material is transported from the sub-tidal across the nearshore bedforms to the shore. The sub-tidal area fronting the Pagham frontage is very shallow and covered with gravel. Some of this is visibly moving onshore as landforms (Inner Owers) but there are some peculiar shingle features at right angles to the beach that are thought to act as transport corridors.

SCOPAC has awarded £4,000 as a contribution towards the project to establish offshore to onshore shingle transport pathways at Church Norton Spit. Investigation of the nearshore bedforms will be achieved using two approaches:

- 1) A desktop GIS approach using South-east Regional Monitoring Programme data to capture changes over the last 10 to 15 years.*
- 2) Sediment tracing using the methods developed by the Eastern Solent Coastal Partnership to document shingle movement under different conditions.*

The project was instigated by Dr Uwe Dornbusch of the Environment Agency, Arun DC and Chichester DC. The first phase of the tracer study element was undertaken by Lucy White from the University of Sussex under the supervision of Dr Cherith Moses from the University of Sussex. The Eastern Solent Coastal Partnership provided the tracer study retrieval equipment.

Lucy White from the University of Sussex has completed her part of the research at a cost of £2,000 and a summary of her results was prepared by Dr Uwe Dornbusch for the SCOPAC and SCG websites. Dr Dornbusch is sourcing a second student to undertake further tracer studies and analysis using monitoring data with the remaining £2,000.

Dr Andy Pearce (Eastern Solent Coastal Partnership): Beach response in front of structures in open coast

Minor contribution of £4,000

Lowering of beaches in front of coastal structures is widely accepted as a leading cause of failure. Beach lowering and toe scour is difficult to detect as the receding tide and storm waves tend to bury this evidence and any damage to structure foundations.

The SCOPAC region includes numerous beach structures at risk of scour, with foundations of poorly known depth and condition. Improved understanding of the scour risk at these structures will help SCOPAC members to better manage the scour risk and to design scour resistant replacements.

The ESCP have deployed six scour chains at Stokes Bay (four attached to vertical seawall and two attached to groyne posts) which are currently being monitored. The team will also issue deployments at Southsea to measure changes in beach levels and maximum scour depth during storms.

Recommendation: For information

1.3 MONITORING OF POOLE NEARSHORE REPLENISHMENT TRIALS

Channel Coastal Observatory: £15,000 from SCOPAC and £116,000 from EA R+D fund (2015 – 2016)

SCOPAC are contributing £15,000 towards the monitoring of a trial which has placed 30,000 m³ of sand on the seabed, allowing natural processes to push the material onshore to replenish the beaches in Poole Bay. This technique has not been tested in the United Kingdom to date.

The project commenced in February 2015, and involved the Borough of Poole working in partnership with Poole Harbour Commissioners, the Environment Agency, University of Southampton and the Channel Coastal Observatory. Poole Harbour Commissioners provided the sand from maintenance dredging of Poole Harbour entrance, thereby recycling the sand back into the system, rather than dumping it offshore.

The works were undertaken between the 9th and 14th February 2015, when 30,000m³ of sand was placed on the sea bed approximately 450m offshore at Canford Cliffs Chine in Poole Bay. Seven survey sets have been collected by the Channel Coastal Observatory (CCO) since the material was placed on the sea bed. Each set consists of a topographic survey of the beach and a bathymetric survey of the sea bed. In addition, fluorescent tracer studies were undertaken to establish a link between the sediment deposited on the seabed and the beach.

The Acoustic Doppler Current Profiler (ADCP) is still in position. This measures the speed, direction and turbidity of water currents using sound waves. With the ADCP installed, any turbidity difference between the trial and conventional beach recharge can be assessed.

The final report was prepared by the CCO, reviewed by the steering group and is currently awaiting Environment Agency sign off. A 'lessons learned' leaflet has also been prepared by the steering group for practitioners and regulators.

Funding provided is as follows:

- * Environment Agency: £130,000 for the placing of sand on the seabed
- * Environment Agency Research & Development Fund: £116,000 for monitoring
- * SCOPAC: a further £15,000 towards monitoring costs

Recommendation: For information

1.4 SCANNING OF HISTORICAL AERIAL PHOTOGRAPHY

Environment Agency: £13,000 (2015 - 2017)

Analysis of historical aerial photography is fundamental to understanding coastal evolution and change. The Environment Agency has now scanned almost all Annual Beach Monitoring Survey aerial photography negatives in collaboration with the National Collection of Aerial Photography and Blom. A number of Local Authorities hold historical aerial photography from the 1960's, 1970's, 1980's, 1990's and the millennium. Post 2002, aerial photography is captured across the SCOPAC region as part of the South-east and South-west Regional Coastal Monitoring Programme for 2002, 2008, 2013 and 2016.

This project has produced a record of the historical aerial photography held by the councils within the SCOPAC region. Scanning by the National Collection of Aerial Photography (NCAP) has commenced for year 1 of the project, focussing on images not previously scanned. These images have now been delivered and will be made freely available where copyright permits.

The project is currently scoping photographs to be scanned for year 2 of the project.

Recommendation: For information

1.5 BOURNEMOUTH BOROUGH COUNCIL: DISMANTLING OF TIMBER GROYNES

Bournemouth Borough Council: £10,000 (2015 - 2017)

Over the past year, Bournemouth Borough Council has deconstructed 7 timber groynes which were built between 1985 to 1987. These included groynes constructed of Greenheart, Ekki, Balau and Jarrah. The remaining 8 timber groynes constructed of Jarrah and Balau, Greenheart and Opepe will be deconstructed in 2016/17.

This is a golden opportunity to assess the relative merits of 5 timber types after a 29-year field test. Bournemouth Borough Council plan to continue to carefully dismantle each groyne, numbering each plank to record its original location in terms of distance from seaward end & level. Any planks that are "unworn" will be set aside for re-use in new groynes and will not require further assessment.

Any "worn" planks are being assessed as to the degree of Gribble infestation and the degree of abrasion. The SCOPAC funds are being used for the scientific analysis undertaken by Jon Williams of TRADA.

Recommendation: For information

1.6 CIRIA GROYNES IN COASTAL MANAGEMENT MANUAL

Bournemouth Borough Council and New Forest District Council: £5,000

The current *CIRIA Guide on the uses of Groynes in Coastal Engineering (1990)* will be updated and called, 'CIRIA Groynes in Coastal Management manual' and will include other materials being used in the field such as plastic and rock.

There will be a new maintenance section covering the whole country, which the FCERM Asset Management Theme Advisory Group thought could build upon Andy Bradbury's SCOPAC work.

A scoping questionnaire has been emailed out to Local Authority and Environment Agency engineers, investigating what information exists on various groyne fields. There will be a national workshop on the 24th March 2017 to discuss the main topics relevant to the design and management of groyne systems and deliverables of the project. SCOPAC engineers have been invited to the workshop where Dr David Harlow and Peter Ferguson will be presenting.

Dr David Harlow and Peter Ferguson will represent SCOPAC on the steering group, review outputs from the manual and disseminate information to SCOPAC officers.

Recommendation: For information

1.7 UPDATE OF THE SCOPAC SEDIMENT TRANSPORT STUDY

Channel Coastal Observatory: £150,000 (2013 - 2016) – funded by the Environment Agency with contributions from SCOPAC

The SCOPAC Sediment Transport Study (2004) is being updated by the Channel Coastal Observatory (<http://www.scopac.org.uk/sediment-transport-update.html>). The last update was undertaken in 2004 by the original authors, Dr Malcolm Bray, Dave Carter and Prof Janet Hooke. Since 2004 a wealth of data has been collected by the South-east and South-west Regional Coastal Monitoring Programmes. This data, along with new literature is being incorporated into the update. The following has been completed to date:

- *Where data have been available, sediment budget calculations have been finalised*
- *Dave Carter has completed all literature reviewing*
- *Maps have been revised to reflect updates to sediment transport arrow directions, volumes, types, legend, title and labels, etc.*
- *Units have been reviewed by Local Authority engineers and the Environment Agency.*
- *Vivid Websites are uploading new maps and text to the 2012 Sediment Transport Study website*
- *Dr Uwe Dornbusch, David Picksley and the SCOPAC Research Chair will undertake a full review prior to publication on the SCOPAC website.*

Recommendation: For information

1.8 SCOPAC Contaminated Land Study

Eastern Solent Coastal Partnership: £25,000 (2016 - 2018)

There are a number of old landfill sites across the SCOPAC region that have previously been protected from the sea, but are now eroding due to the age of the original protection and sea level rise. A large number of these are owned by the Local Authorities and are public open space. The nature of the problem is long-term as it is likely that the landfill sites contain some of the early plastics. Given that these can take hundreds of years to biodegrade, it will be necessary to continue to contain the sites for the foreseeable future, as removal is very unlikely to be a feasible option. There is therefore a need for a long-term plan that is technically feasible and affordable. The Shoreline Management Plans and Coastal Strategies form the basis of this plan, however at present, as far as protection of landfill is concerned, they are aspirational as there is no appropriate funding mechanism. Given that the landfill sites are often undeveloped, they do not qualify for FDGiA funding.

This desktop study will build upon a project undertaken by the Eastern Solent Coastal Partnership in conjunction Tim Kermode. Possible funding streams for protecting the sites will be explored, with the main aim of the study being to raise the profile of the issue to the politicians. This SCOPAC study will work in parallel with the NERC Contaminated Land study led by the University of Southampton, which is investigating the practicalities of moving or defending landfill in the face of climate change.

Recommendation: For information

1.9 SCOPAC AND SCG WEBSITES

To discuss in meeting.



Report to Southern Coastal Group

March 2017

1. SURVEYS

1.1 Topographic Surveys

Spring surveys are currently under way.

1.2 Bathymetric Surveys

The swath bathymetry survey from Shoreham to Pagham Spit has been validated by UKHO and is now available to download from the CCO website.

1.3 Lidar Surveys

Surveys for Pagham, Medmerry and Dungeness have been flown, data yet to be received.

1.4 Aerial Photography

Aerial photography capture is complete, and loaded to website.

1.5 Ordnance Survey Transformation OSTN15 / OSGM15

Since the Ordnance Survey introduced their new transformation used to convert from ETRS89 to OS National Grid, all surveys undertaken by CCO since 1st January now use the new transformation. There has been a small non uniform change in elevation across the region, with negligible change in plan position. Users wishing to use data pre and post transformation switchover may need to apply an offset in order for datasets to be compatible, especially regarding volumetric analysis. Each dataset's Survey Report states which transformation has been used.

2. HYDRODYNAMICS

The tender for the next phase has been won by Fugro GB Marine Ltd, formerly Fugro Emu Ltd. Effective 1st April.

3. WEBSITE

The real time hydrodynamic data pages have been revised to auto-scale so as to make them suitable for tablet and smart phones. Previous and next view arrows added to improve ease of use.

4. GENERAL

UAVs (drones) are currently being looked into to assess suitability for coastal monitoring. With advances in technology, costs for UAVs have significantly reduced while quality of outputs have increased. These systems have the ability to survey in detail large areas in a very short time.

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