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Beneficial Use of Dredging in the Solent (BUDS)

Phase 3 – Licencing and operating system of beneficial use dredgings'

Solent Forum

Project Brief

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Version	Date of Issue	Name	Title
Draft 1	2/2/21	Karen McHugh	Solent Forum Manager
Draft 2	11/2/21	Karen McHugh	Solent Forum Manager
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1 Background

Introduction

The Solent Forum started the BUDS project in 2017, following requests from its members who were keen to see more of the region's dredged sediment used to beneficially protect and restore the Solent's deteriorating saltmarsh. The project is phased as follows:

Phase 1 Desk research and Scoping

Phase 2 Feasibility and costings

Phase 3 Licencing and operating system of beneficial use dredgings'

Phase 4 Saltmarsh Restoration

The Vision

To bring about a system whereby sediments generated by dredging projects can be used beneficially to protect and restore saltmarsh within the Solent.

In order to achieve this vision, a prescribed system, including the licensing of beneficial use sites is required, so that operators can bring dredging's to these sites as a viable alternative to current practice of disposal at sea.

It is believed that until, permissions and licences are in place for beneficial use sites, operators will not make alternative arrangements to move away from the current norm as there is a lack of incentive to do so, and absence of regulation to force change.

The aim of BUDS Phase 3 is to secure the necessary consents and permissions to facilitate a beneficial use project in the Western Solent. In parallel a key requirement of this phase of works is to identify and develop to the point of implementation a self- funded operating model. This is not only important to ensure the long term viability of the Western Solent project but to demonstrate how the BUDS approach could be rolled out more widely. . Once the consents and permissions are in place, a long-term system will be available to enable sustainable placement of dredged material to the benefit of the wider environment.

BUDS Phase 4 will scope a project to focus on the restoration of saltmarsh habitats; however, it will be dependent on external funding.

History

Phase 1 of the BUDS project involved a high-level review of the Solent region to identify sites that would gain most from a beneficial use campaign. These were sites where dredge arisings (predominately silts) could be used to 'recharge' deteriorating habitats and achieve a range of environmental, social, and economic objectives (especially increased coastal flood protection).

Alongside this strategic review, a key aim of this initial stage was to begin developing collaborative partnerships with those willing to support one or more recharge initiatives, especially at a large scale.

To progress the recommendations from Phase 1, Phase 2 of the BUDS project investigated the 'real world' feasibility of conducting valuable beneficial use project(s) on the West Solent saltmarshes. Key objectives for this phase were to: Clarify how, and where, dredge sediments can be beneficially

placed on these marshes; Understand the costs and benefits of possible initiatives on a more site-specific basis; and recommend how practical projects can be pursued in BUDS Phase 3 and further define the roles that different stakeholders might play in future initiatives. To achieve these objectives, the following was conducted: Baseline objectives and background review; Technical Options Review; Cost benefit analysis and Review of funding opportunities.

The conclusion from Phase 2 was that there would be net societal cost benefits from three out of the four different approaches that were reviewed (the largest of the four was too expensive to achieve a cost benefit). A great deal of cost benefit comes from the deferral of capital expenditure on coastal and harbour protections but there are also benefits from other services including delaying habitat loss and retaining carbon. In addition, there could be substantial non-monetary values for this location given that the local community values and uses the coastal environment on their doorstep to such a high degree.

To launch Phase 3 and 4 the implementation phases, an Expressions of Interest Brief was sent to the BUDS technical group and potential contractors. The Technical Group met on 22nd July 2020 and agreed the project approach. A Request for Funding document was then produced, and funding secured from the Solent Forum for Phase 3.

This brief is for <u>Phase 3</u> – Licencing and operating system of beneficial use dredgings. The aim of this phase is to secure a Marine Licence (and any other necessary consents) that will enable the bottom placement of sediment in a number of locations in the Western Solent (west of Lymington), by third parties operating under their own dredge disposal licence. This phase will include all consents and permissions to place dredging's. This phase will include the identification of a methodology/system that will enable third parties to have a viable alternative to their current practices of disposal providing that the dredge material to be disposed of is of suitable sediment type and has passed Cefas contaminants analysis. This will thereby ensure that there is an opportunity to facilitate change.

The success of this phase will mark an important success for BUDS and the overall objective of the project, to offer third parties a beneficial alternative to the current practise of disposal at licensed offshore deposit ground. Once the grounds become used, income can be derived to ensure that on-going project costs are met including any monitoring costs. This phase includes setting up this system.

Phase 4 is more ambitious and involve higher costs as would involve placement of sediment on the marshes at Lymington. Funds for this phase have not yet been raised. Phase 3 does however include some Phase 4 elements including: full costings and cope for phase 4 and consents for phase 4 where possible.

<u>Location of sites</u>

BUDS 2 made specific recommendations on the suitability of sites in the western Solent for beneficial use of dredgings.

The location of sites for this project are in the Western Solent. Consents (including landowner consent) will need to be secured for 4 - 6 sites as specified in the phase 2 report:

- Boiler Marsh B
- Cockleshell Marsh, which are each protecting the Lymington Harbour entrance.
- Hawker's Island or Stoney Point Marshes, which are each protecting the Keyhaven Harbour entrance and many buoy moorings; and
- The shoreline at Pennington, where the defences are most exposed and where a notable opportunity exists for a larger-scale project to protect the sea wall.

Site Management System and Monitoring Plan

A key output of this work is to establish a , self-funding system for bottom placement and monitoring. The MMO may put conditions to the licence such as maximum annual tonnage per location and require pre- and post-deposit surveys. An estimate of these costs needs to be made and Lymington Harbour Commissioners will be able to provide details of their licence conditions and monitoring system for deposits at Boiler marsh. These costs need to be worked out and a system established to re-coup these costs from dredging projects.

It is envisaged that the system will offer dredging projects a cost-effective alternative and better outcomes for the environment than the current practice of depositing at sea. Currently dredging projects pay a fee based on tonnage of material disposed of at licensed sites (approx. 1p per tonne capped at £15k per project). The dredging contractor records the coordinates, dates and amount of each deposit and sends this information to the MMO who takes responsibility for monitoring and administration..

For the new deposit grounds at Lymington, the MMO will not be the monitoring authority and therefore a system will include a detailed monitoring plan and payment to an administrator to invest in the marshes. It will need to be self-financing.

The monitoring programme will help users and regulatory bodies understand the effects of deposits. The questions that we consider are likely to be identified include:

- How much material deposited.
- How much material retained.
- Where material has drifted (by state of tide)
- Effects of material on marshes over time both positive and negative
- Condition assessment of the marshes over time

The above monitoring will provide information necessary for deposit consents and to inform future progress of BUDS and lessons learnt.

Value of sediment placement

The value of the planned works is critical to understand for the following reasons:

- It will validate the importance of the project.
- It will determine the level of funding that might be gained for the project in the short and longer term.
- It will help determine the outcome of consents and licences that will be required, including the future habitats regulations assessment that will be necessary.

Bottom placement of sediment provides value in keeping sediment in the system thereby protecting the mud saltmarsh edge, thus offering some protection of further saltmarsh erosion. Bottom placement will not restore intertidal habitat but will prevent further deterioration of this precious habitat, and that is why funding is being sought for Phase 4. It is estimated that the cost of fulfilling BUDS Phase 3; opening an beneficial use site in the Western Solent will be up to approximately £60k. This will include licence fees to the MMO; it has been estimated that this could be as much as £20-£30k. Once the grounds become used, income can be derived to ensure that on-going project costs are met including any monitoring costs.

Lessons Learnt and the role of the Solent Forum.

BUDS is being progressed by the Solent Forum and the Technical Group leading it in an adaptive and strategic manner that allows for progressive 'scaling up' such that projects are progressed (relatively rapidly) as increasingly ambitious initiatives over time with each providing the lessons and confidence to move on to the next stage(s). It is for this reason that this brief describes the overall vision for BUDS and explains the ambitions for Phase 4 – Habitat Restoration. Adopting this 'scaling-up over time' approach will allow for the monitoring and communication of findings clearly across partners, funders, and the local community. This will also help with building partnerships, verifying the effectiveness of the techniques used, providing reassurances they deliver with requisite certainty, where needed, and improving overall understanding about costs and benefits.

This process will be coordinated by the Solent Forum so that it fits into national strategic initiatives such as ReMeMaRe. The BUDS project is demonstrating how broad regional policies for beneficial use (e.g., those set out in the MMO's South Coast Marine Plan) need to be proactively investigated at progressively more local levels to crystallise them into more distinct and deliverable projects that have the potential to attract investment and engender stakeholder participation.

Invitation to quote.

This project brief is for **Phase 3** ***Licencing and operating system of beneficial use dredgings***. Funding for Phase 4 – Habitat Restoration, is still being sought.

Consultants are invited to quote for this phase of the work. The work will need to be conducted within the financial year 2021/22 commencement April 2021.

Further details and all products from the BUDS project can also be found on the Solent Forum website. http://www.solentforum.org/services/Current_Projects/buds/, where details of Phase 4 can be found in the Expression of Interest document (please note that in this document it was described as Phase 3 Part 2).

2 Project Definition

2.1 Objective, Deliverable & Acceptance Criteria

2.1.1 *Beneficial bottom placement of dredgings*

This objective is to be assessed against the following elements:

1. Method statement for consents for bottom placement and top placement, working with CEFAS and MMO

A. Agree parameters with regulatory authorities at each location for top placement and bottom placement– to agree standards that each location can receive AL1 or AL2 . This information can then be given to third parties undertaking dredging works to provide an alternative to off shore disposal
B. Agree how the material is to be placed eg winter, summer, ebb /flood tide, low /high water etc
C. Agree volumes of and characteristics of sediment that can be disposed.
D. Agree and sample if necessary, material from receiver sites to dictate sampling plan above. This may include enhancing understanding of species and habitat present.
E. Send samples for analyses (dependent on C)
F. Report on sampling results (dependent on C)

2. Obtain consents for beneficial bottom placement of dredgings

A. To contact all relevant landowners (and other parties) and obtain relevant consents
B. Agree outline plan for bottom placement work
C. Meetings with CEFAS, MMO and LPA to scope consents
D. Meeting with NE to scope consents/possible HRA (expect no adverse affect)
E. Conduct HRA, and if necessary agree mitigation
F. Provide all information (modelling/survey work) to enable these consents
G. Payment of licence fees necessary for all bottom placement works
H. Obtain licence for bottom placement at the locations agreed

3. Obtain consents for deposit grounds - top placement – including HRA and WFD. (Advised by NE that the HRA will be required and will need to be robustly argued)

A. To contact all relevant landowners (and other parties) and obtain relevant consents
B. Agree plan for top placement work based on Phase 2 locations
C. Meetings with CEFAS, MMO and LPA to scope consents
D. Meetings with NE to scope HRA
E. Conduct HRA, and if necessary agree mitigation
F. Payment of licence fees necessary for top placement where possible
G. Obtain licence for top placement at the locations agreed
H. Agree licence conditions to link with site management plan and monitoring

4. Baseline surveys of marshes (using drone survey material already collected in phase 2 but then on site ground truthing work). This element may be reduced as NE have agreed to pass on detailed habitat mapping of the intertidal area (not saltmarsh); NE value this at it at £16k.

A. Identify required baseline surveys
B. Provide plan of baseline survey required
C. Conduct baseline survey
D. Report on survey results including an assessment of the current ecological value of the marshes

5. Determine value and costs
A. Determine costs and value of bottom placement plan building on BUDS 2 Cost Benefit Analysis B. Determine outline costs and value of top placement plan building on BUDS 2 Cost Benefit Analysis C. Split costs by a) consenting and licensing b) physical disposal costs c)monitoring
6. Identification of required infrastructure for bottom placement
A. Determine whether any infrastructure will be required B. Ensure that consent includes for the inclusion of any required infrastructure C. Cost and plan for infrastructure
7. Set out detailed site management system and monitoring plan, that will be self funding into the future. This will include licence conditions over a number of years.
A. Set out detailed site management system based on licence conditions. System to include method that the sites can be open to accept dredgings and a payment system in place B. To meet with Lymington Harbour Commissioners to understand the system they have in place for depositing at Boiler Marsh C. Scope monitoring plan D. Agree administrator that will receive payments from clients, and to be able to pay all necessary on-going costs
8. Detailed costings for Phase 4. See Appendix A for estimate of Phase 4.
A. Provide detailed costed proposals for Phase 4 showing a timetable and potential funding streams
9. Reporting on project progress and wider lessons
A. To provide 3 reports followed by 3 meetings. 1) Planning reports at start 2) Interim report mid-way through to present initial findings and ensure the work is on track and meeting the groups requirements and 3) A final summary report detailing tasks achieved. B. To hold at least one workshop with the Project Group (this can be in place of one of the above meetings) C. Detailed report on Site Management System and Monitoring Plan D. Costed proposals for the Phase 4 E. Evaluate project success and make recommendations for the future F. Audit lessons learnt for wider project

2.1.2 ***Deliverable***

i. **Methodology.** Prior to commencing work, the successful tenderer will provide a fully detailed methodology for prior approval by the BUDS Technical Group.

ii. **Interim progress summary.** To provide a progress summary to the Project Group at two monthly intervals and prior to drafting final report.

iii. **Full report (draft and final).** Full written report of work. The report to be provided in 2 x hard copy and electronically. It must fully meet the project objectives and will be subject to quality assurance by the Project Steering Group (see Project Brief).

2.1.3 *Progress Meetings and Liaison*

An inception meeting will be held with the successful tenderer during the first week of the contract. In addition to this, it is anticipated that a maximum of 4 further meetings will be required during the duration of the contract. This is subject to negotiation with the successful tenderer. This includes workshops.

A monthly update by email (or meeting if preferred) to the project team must include:

- Project progress; and,
- Any issues or problems experienced and/or actions taken to resolve these issues/prevent them from recurring.

2.1.4 *Acceptance Criteria*

i. Final report to be endorsed by the Project Technical Group and accepted by Solent Forum.

2.2 Scope Inclusions and Exclusions

2.2.1 *Inclusions –*

i. An element to include the exchange of information between partners, working with the stakeholder network established in Phase 2 and a forum for exchange. Explore techniques such as workshop meetings

ii. Continued exploration of the viability of a habitat management project reusing dredged material sourced either within or outside the Solent

2.2.2 *Exclusions*

i. All field work and monitoring to build upon existing resource, especially Natural England monitoring of marshes. The project will only pay for fieldwork that adds information to work already completed rather than duplicates effort

ii. No unsubstantiated assumptions.

2.3 Assumptions

i. Access to relevant available information will be permitted by third parties and provided free of charge or within budgeted costs.

2.4 Proposed Project partners and stakeholders.

Project Group (PG)

Karen McHugh	KM	Chair, Solent Forum (SF)
Adam Cave	AC	Environment Agency (EA)
Bridget Leyden	BL	Natural England (NE)
Lindsey Hollingsworth	LH	
Jessica Taylor	JT	
Sue Hawley	SH	Isle of Wight Council/Estuaries Project (IoWC)
Alison Fowler	AF	River Hamble Harbour Authority (RHHA)

Pete Ferguson	PF	New Forest District Council (NFDC)
Paul Tosswell	PT	Lymington Technical Services
Michiel Luyken	ML	Boskalis Westminster
Sue Simmonite	SS	ABP
Hilary Crane	HC	Eastern Solent Coastal Partnership (ESCP)

Stakeholder Organisations (SO)

The Environment Agency	• REACH/ReMeMaRa • Coastal Habitat Restoration • Flood and Erosion Risk Management (ENV) fund for schemes
Natural England	Consenting and HRA Habitat Restoration Conservation Advice and Condition Assessments
MMO Contacts: Christopher Turner	Consenting
CEFAS	Consenting
SCOPAC	interested in research elements and monitoring
HCC/HIWWT	Landowners
Other landowners	At receiver sites to be fully consulted
Hurst to Lymington Flood and Erosion Risk Management Scheme Contacts: Rhian Edwards, Gemma Taylor	Funding of top placement/retention) – Physical placement of material could be funded under FCERM funding rules for Environment Support Projects which are funded outside the partnership funding calculator where there is a clear driver on FCERM to deliver habitat enhancements as a result of impacts of FCERM operations. This funding is unlikely to align until 2027. Applications to be made each May. Application to made May 2021 to show how many properties may be protected etc
Habitat Compensation Programme (Eastern Solent Coastal Partnership) Contacts: Hilary Crane	This programme seeks to find suitable sites to offset coastal squeeze as a result of flood and coastal erosion schemes planned. Principle to look for habitat locally first before looking elsewhere. Part 2 can offset coastal squeeze that will occur in future from Solent/Dorset schemes. Up to £340k sought for part 2 This is funded under FCERM Partnership Funding GIA. It can be matched with other Government funding. This funding may be possible to access now.
Organisations providing Net Gain	Money from marine projects such as offshore windfarms. Explore with Debbie Tann – HIWWT. May not be applicable as all of Solent is designated

Lymington Harbour Commissioners	The value of their ongoing/extended bottom placement work that they are pursuing already. Can work with them on marsh protection techniques and monitoring/sampling benefits. Value £60k in addition to this project
Harbour Authorities and marinas etc	Once the deposit grounds are open, a fee per tonne will be levied. The Nab Tower currently levies 1 pence per tonne capped at £15k per load. This will pay for all on-going funds and an amount will be put towards habitat restoration part 2.
Dredging Contractors	Involve them in costings for Phase 4 and in Phase 3 where relevant. Jenkins Marine Royal Smals Boskalis Land in the Water

2.5 Known Risks

- Cost of consenting process.
- HRA requirements arduous and costly
- Appointed consultant fails to adequately answer the brief.
- Covid 19 disruptions
- Landowner consents

2.6 Approach

This project brief covers Phase 3 of a potentially larger project. Further details and all products from the BUDS project can also be found on the Solent Forum website. http://www.solentforum.org/services/Current_Projects/buds/, where details of Phase 4 can be found in the Expression of Interest document.

3 Outline Project Plan

3.1 Provisional Timescales

Award of contract to consultant by 12th April 2021.

12 months to complete the project from start date, therefore expected 19 April 2022..

3.2 Provisional Resource requirements

- Consultant
- Solent Forum input
- Consultees' time
- Input from partner stakeholders regarding survey methods
- Data and reports

3.3 Provisional Cost estimates

Quotes will be sought and the costs will be provided to the Project Group.

4 Customer quality expectations

The output of this project is to be a formal technical report provided in 2 x hard copy and electronically. It must fully meet the project objectives as laid out above and will be subject to quality assurance by the Project Group All reports will made available in the public domain in due course.

Status of Project Brief

FINAL

Appendix A - Outline tasks for Phase 4 to enable Habitat Restoration detailed in BUDS Phase 2

Overall tasks

The costs below need to be confirmed during Part 1 but estimates have been put at £340k. Please note that this is for top placement

1. Sampling of material for consents for top placement, working with CEFAS and MMO
2. Review Baseline surveys of marshes (using survey material already collected in phase 2 and NE data in Phase 3 + ground truthing work)
3. Obtain consents for deposit grounds - top placement – including HRA and WFD. Expecting no adverse affect HRA
4. Set out detailed site management and monitoring plan, that will be self funding into the future. This will include licence conditions over a number of years.
5. Monitoring year 1-3 and reporting
6. Lessons Learnt
7. Install infrastructure for top placement – Initial trial sites and then rollout
8. Install infrastructure retaining marsh material – initial trails and then roll out

Detailed Tasks by time

Year 1 (Spring to Spring)

- Engage with, and actively involve, the local community, and carry out a non-use local community valuation study (perhaps in tandem with the Environment Agency and NFDC's consultation on flood defence priorities);
- Promote lesson learning and advocate for policy clarifications and changes (e.g. clarity of relevant issues such as compensation, mitigation, conservation management and FCERM/Outcome Measure funding) through regional, national and international forums;
- Apply for consents for top placement;

Year 2 onwards

- Start the first trials of an initial top placement
- On an annual basis, continue all of the above and expand the scale of the work and/or the number of locations where it is carried out in response to findings.