

# Beneficial Use of Dredging in the Solent

## Phase 3

### Expressions of Interest Request

June 2020

#### 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 restore and protect its deteriorating intertidal habitats. 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 (silts mainly) 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 involved investigating 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. In order 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.

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/](http://www.solentforum.org/services/Current_Projects/buds/)

#### BUDS Overall Objectives and Phases

The overall objective of BUDS and the final Phase 3 of the project is:

- Open and enable a suite of deposit grounds in the Western Solent for beneficial use of dredgings to be made into the future, providing valuable lessons learnt to enable work to be replicated.

More specifically the following aims are as follows:

1. Identify and obtain licences for disposal at a number of deposit grounds in the western Solent for bottom placement dredgings, as an alternative to other deposit sites. Licences to be made into the future and under what conditions
2. Identify and obtain licences for disposal at one or more sites in the western Solent suitable to deposit dredgings at the top of the marsh using a platform with pumping facilities or by cutter suction. Licences to be made into the future and under what conditions
3. Identify the specific areas for the placement marsh edge protection material/structures either on or around eroding marsh edges and or around the above site(s) where top of the marsh dredgings placement takes place. This may be in the form of trials in the first instance.
4. Ensure that a coordination body is set-up to manage decided systems of on-going monitoring and maintenance of licencing, as well as critical infrastructure in-perpetuity
5. Provide monitoring and lessons learnt to enable similar practices to continue in the Solent and elsewhere

It is envisaged that Phase 3 (which concludes the BUDS Project) is led by the BUDS Technical Group, and that the Solent Forum will continue to manage the project overall, as well as enable continued partnership working; continue to draw out lessons learnt and communicate on a regional and national strategic level. At the same time, the Environment Agency will be embarking on consultations for the coastal defence strategies also the Hurst top Lymington frontage. Given how important this process will be (for identifying action and for engaging and involving the community), there will be a need for close links between BUDS and the Environment Agency programme.

To move for overall objective of Phase 3 is to:

### **Location of sites**

BUDS 2 made specific recommendations on the suitability of sites in the western Solent for beneficial use of dredgings. It is recommended for Aim 1, consents are gained for a number of sites (approximately 6). For Aim 2, it is recommended that consents are gained and infrastructure provided for 1 or 2 key sites that would be of greatest efficacy and conservation value. Aim 3, will gain consents and enable the placement of suitable materials to retain sediment on marshes.

Aims 2 and 3 may start from an initial trial basis and then roll-out to include more sites.

### **Monitoring and building progress**

It is envisaged that the phase 3 programme will include a monitoring programme over a number of years, to help users and regulatory bodies understand the effects of deposits as follows:

- Bottom placement – how much material is retained; where it has drifted (by state of tide); effects on marshes
- Top placement – how much material is retained; cost benefit

The above monitoring will provide information to inform future progress of BUDS and lessons learnt

## **Broad Tasks**

Tasks need to take place sequentially and within at least 2 contracts. All of the money has not yet been obtained, and part 1 will culminate in a detailed Request for Funding

### **Part 1**

- Sampling of material for consents for bottom placement and top placement, working with CEFAS and MMO
- Obtain consents for deposit grounds - bottom placement
- Obtain consents for deposit grounds - top placement – including HRA and WFD. Expecting a no adverse affect HRA
- Baseline surveys of marshes (using drone survey material already collected in phase 2 but then on site ground truthing work)
- Set out detailed monitoring plan
- Detailed request for funding for part 2.

### **Part 2**

- Monitoring year 1 – 3 and reporting
- Lessons Learnt
- Install infrastructure for top placement – Initial trial sites and then rollout
- Install infrastructure retaining marsh material – initial trails and then roll out

Please see Appendix A for more detailed breakdown of tasks

## **Building habitat and its value**

The part 2 tasks will enable the building of new habitat, and it is at this stage that this can deliver habitat for a number of key existent plans – a) flood risk and erosion risk management plans between Lymington and Hurst (currently being consulted by the EA) and b) The Regional Habitat Creation Programme (habitat currently being sought by ESCP). c) On-going work by Lymington Harbour Commissioners to retain dredgings on the marsh. This will un-lock funding of the timing and commissioning is properly linked.

A general aim should also be to avoid focussing on a single technique but instead apply and test multiple techniques across different locations (as well as combinations of techniques at specific locations) to maximise benefits. It is also recommended/expected that BUDS is progressed 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). 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.

## **Lessons Learnt**

As part of the lesson learnt, it will be also be vital to improve understanding about the value that can be placed on these specific marshes, rather than having to rely only on generic valuations. This should include determining the particular value that is placed on these habitats by those who live nearby and visit this site. This value (referred to as 'non-use') was not included in the CBA for this project and could be very high given the location and history of these marshes. The process of obtaining such as a local valuation would not only help clarify the project rationale but could also help facilitate the active involvement of local people in the decision making about the valuable resource on their doorstep.

Application of strategically-driven lesson learning, communication and monitoring (including possible citizen science approaches) to inform future projects. 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 in order to crystallise them into more distinct and deliverable projects that have the potential to attract investment and engender stakeholder participation.

This process needs to continue in the West Solent to engage and involve the local community and deliver projects. As part of this strategic oversight, it will also be important that completed projects provide a clear audit of the costs incurred as this will greatly help to inform planning of local recharge projects as well as other proposals for the rest of the Solent and other parts of the UK.

## **Partnership and funding**

### **Estimated ballpark costs**

#### **Part 1**

Sampling, licences and consents  
Base line survey and monitoring plan  
Clarification with HAs the amount of material available  
Engage local community and carry out non-use valuation  
Detailed costed proposals for funding

#### **Part 2**

Infrastructure for top placement  
Marsh edge material infrastructure  
Monitoring and lessons learnt

#### **TOTAL**

### **Potential funding partners**

Lymington Harbour Commissioners - ongoing/extended bottom placement work that LHC are pursuing already. A business case for developing an Option 2/3 fencing  
SCOPAC interested in research elements and monitoring

SPS – Sarah Freemantle

EA REACH/ReMeMaRe – Roger Proudfoot, Eve Leegwater

EA WIEF

Crown Estate

Hurst to Lymington Flood and Erosion Risk Management Scheme (funding of top placement/retention) – EA and NFDC

Regional Habitat Creation Programme (ESCP) (funding top placement/retention)

MMO – Test case for efficient licencing for environmental benefit (Christopher Turner)

### **Expressions of Interest Required from**

ABPmer

Jenkins Marine

Royal Smals

Boskalis

Land in the Water

Please can you write to the Solent Forum to state whether you would be interested in this work. It would be useful if you could provide a page/paragraph on what you could bring to the project.

### **Next Steps**

Feedback from BUDS Technical Group	17th July
Expressions of Interest	17th July
Technical Group on-line meeting	22nd July 10am
Brief for funding bid	15th August

## **Appendix A**

### **Detailed Tasks**

#### **Year 1 (Spring to Spring)**

- o Seek funding and in-kind supporting roles across partners, regulators and advisors;
- o Discuss further with all the relevant harbours and marinas to agree and develop a strategic plan for future recharge work. This should include clarifying the annual dredge volume contributions that they would be able to make to: Option 1 (bottom placement), and/or Option 2/3 (fencing and recharge);
- o 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);
- o Seek permission (starting with a sampling plan) to licence more local deposit grounds for bottom placement work, including all/most sites detailed in Phase 2 study
- o Carry out bottom placement work during winter period
- o 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;
- o Continue full-Solent oversight through work of the Solent Forum and maintenance of the BUDS online map;
- o Agree, among partners, the detail and the timing of an Part 2;
- o Develop project detail and a business case/plan and then begin procurement work for Part 2 to be done at next opportunity

#### **Year 2 (Spring to Spring)**

Most above actions are ongoing and will need to continue. The key tasks for this year to include

- o Carry out monitoring and continue engagement work (including lessons from bottom placement);
- o Apply for consents for top placement;
- o Start the first trials of an initial top placement; and

#### **Year 3 (Spring to Spring)**

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.