

**Chairman: Peter Barham**

**Vice-chairman: QHM, Portsmouth**

**Beneficial Use of Dredging in the Solent (BUDS)**

**Phase 1 Project Scoping and Partnership Building**

**Solent Forum**

**Project Brief**

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# Background

History

There has been a strong desire amongst Solent Forum members to find solutions to the many barriers which are preventing the effective use of dredged material to augment Solent intertidal sites and, hence, to provide other benefits associated with such restoration work (especially enhanced coastal protection).

For many years now there has been a ‘general desire’ in the UK to carry out beneficial use and there is a requirement to consider such initiatives as part of the Marine Licencing process. However, such ambitions have not been enough to overcome other challenges and, as a consequence, there has been very limited project implementation and the vast majority of dredged sediments are not beneficially used for habitat restoration. A stakeholder workshop hosted by ABPmer in March 2014 identified the barriers as being: cost; absence of Governmental leadership (linked to lack of legislative drivers); risk aversion by regulators over environmental impacts; and both technical and logistical challenges associated with marrying sediment sources to sites of sediment need.

There are signs, however, that more organisations are keen to realise beneficial use projects. For instance the MMO will have a policy in the emerging South Marine Plan to identify disposal sites to re-use arisings, and in the last 5 years there have also been some significant examples of beneficial use of sediments in the Solent, especially at Lymington.

To make such projects happen however they will need to be actively driven forward. The Central Dredging Association (CEDA) have just set up a new commission for dredging management.

Aims of the Overall Project

With this in mind, the Solent Forum now seeks to build on and not repeat past work and lead on the development of a multi-phase project that has the following long term primary aim.

***To bring about beneficial use of dredging within one or more Solent sites, using an incrementally phased approach to scope and cost sediment sourcing and sediment receiver sites, building a system of protocols and guidance.***

More specifically the overall project will aim to:

* To identify a set of criteria (building on criteria already used in the Solent) to help assess the suitability of the sites (including type of material, volume of sediment, accessibility of site, potential partnership funding, value of the site as habitat or flood and coastal management, other engineering challenges)
* Identify the characteristics of suitable sites for beneficial re-use, using the above criteria
* Identify suitable site(s) within the Solent where beneficial use would be most practical and beneficial, providing a high level of cost benefit analysis, aligning costs and benefits to regulatory bodies
* Work in partnership with a range of regional stakeholders to find solutions to known challenges based on their knowledge and existing shoreline strategies. To especially examine regulatory barriers to include smothering of existing habitat and contaminated waste concerns
* Develop a strong feasibility case for undertaking significant ‘regional flagship’ beneficial use project(s) in the Solent, and enable the implementation of that project through further phases.
* Develop a love mapping system so that receiver sites can call for sediment.
* Ensure that there is a collaborative exchange of lessons between the regional work of the Solent Forum and other initiatives being undertaken at a national level by parties such as the RSPB­, MMO, ABPmer or The Crown Estate. Specifically to ensure that the work leads to systems (such as the love mapping system) that can be replicated and that protocols and guidance are developed.

This work is to be conducted using a phased approach and it is envisaged that there will be four phases as follows. This brief is specifically for phase 1.

1. ***Project scoping and partnership building***
2. Working with stakeholders to develop further phases of work and to develop strategic guidance and protocols
3. Feasibility study and detailed cost benefit analysis
4. Beneficial use projects

Full details of the overall project can be found in the BUDS Terms of Reference on the Solent Forum website BUDS Project pages http://www.solentforum.org/services/buds/.

The importance of partnership building

The BUDS project, and in particular the first phase, should build on a wealth of information much of which relates to the Solent including amongst others work from River Hamble Harbour Authority and the University of Southampton, Lymington. It is important that the work does not replicate previous work and that the budget is used to build upon it.

It will only be possible to make real advances in the Solent if the benefits of re-use of dredging is really understood and costed, and these benefits are aligned to objectives of regulatory bodies and coastal managers. This will need to be brought about by careful understanding of the roles and drivers of all partners. Partners will come together in this project via an established Project Group to steer the project (this group has met once and the minutes can on the Solent Forum website project pages http://www.solentforum.org/services/buds/) and a wider stakeholder group which will need to be formed and which should be used to identify opportunities and barriers in phase 1 and if necessary subsequent phases of the project.

The Solent Forum’s role

The Solent Forum has brought together the project group for BUDS and has coordinated the Terms of Reference. It will manage the first two phases of project, as well as provide coordination and facilitation to hold necessary project group meetings to bring this about. After that the project may be managed by others as appropriate, although it will continue to facilitate communications thereafter. Whilst the Solent Forum managed the project, all outputs must acknowledge the Forum’s role.

# Project Definition

## Objective, Deliverable & Acceptance Criteria

### Objective

1. **Provide a high level scoping of beneficial use of dredging in the Solent using a partnership approach.**

This objective is to be assessed against the following elements:

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| **1.Basic literature review and context building** |
| 1. Literature review of issues, challenges and constraints, including understanding of national context and drawing upon past review work – this element to be very light touch; it is very important that this phase does not just repeat old work, but describes how it can be built upon. |
| **2.Identify criteria for assessment** |
| 1. To identify a set of basic criteria at a high level to help assess the suitability of the sites (including type of material, volume of sediment, accessibility of site, potential partnership funding, value of the site as habitat, value of the site for flood and coastal management, and other engineering challenges). 2. Criteria for evaluating sites to build on work from previous work in the Solent (by HCC and RHHA) and crucially develop a survey of relevant Solent Authorities and stakeholders to identify opportunities. Ideally develop a multi criteria analysis but recognise that the budget would not allow any detail on this. 3. Criteria to Focus on fine materials for re-use on mudflats and saltmarsh in the Solent (including north Isle of Wight); consideration to coarser material can be given 4. Criteria to cover all elements leading to the suitability of sites including: suitability of material to sustain new habitat; to assess the existing habitat at the re-use site and whether it has reduced previously and for what reasons; environmental impacts on re0sue and neighbouring sites 5. Characterise suitable sites for beneficial re-use, using descriptors to help identify actual sites |
| **3.Provide high level GIS mapping of potential areas in the Solent for beneficial reuse and areas where material can be sourced and begin working towards a “Love Mapping” system** |
| 1. Create a high level strategic GIS planning map of Solent dredge locations and disposal sites and areas of potential value for recharge work, using the criteria above and providing some element of prioritisation, updating previous extensive information provided in the Solent 2. Consider whether beneficial use can be regularly repeated from donors to recipient sites 3. Build a database on both the donor and receiver side 4. Receiver information to include: suitability of sites, material required, timing and for what reason), reason for requiring sediment (habitat or flood/erosion management). 5. To detail sources of sediment by type and amount (Donor information to include: type of material, amount and timings) 6. To describe how the work above can feed into a “Love Mapping” system, whereby receiver sites can call for sediment, scoping out and costing such as system for future phases |
| **4.Building a stakeholder network for the exchange of information** |
| 1. Build a stakeholder network for the exchange of information and use a variety of methods such as surveys and workshops to elicit information from relevant Solent Authorities and stakeholder network for potential donor material and receiver sites. 2. To examine at a high level both national (build on those that are known) and local opportunities and barriers regarding beneficial re-use. Also identify policy that leads to opportunities. More specifically to list a) physical and b) regulatory opportunities and barriers and detail actions to address them in order to help the project move forward over the next phase. Physical barriers may include suitability of material, smothering etc. Regulatory barriers should specifically address the waste regulations and the role of CEFAS in interpreting and influencing beneficial re-use. 3. List all assessments required to bring about beneficial re-use and pre-application discussions advised 4. A forward policy look, using partner input, to show how the future of policy could be developed. Consideration of financial incentives to beneficially re-use (using assessments of benefits of re-use and benefits of the habitat created to create pathways to funding from Government and partners) |
| **5. Measuring Efficacy and cost benefit analysis** |
| 1. High level cost benefit analysis of sites to show benefits using ecosystem service benefits 2. Align costs and benefits to regulatory bodies 3. Description of how measure efficacy, and some context building on measuring efficacy using best practice and lessons learnt in evaluating efficacy of projects elsewhere |
| **6. Evaluation and Recommendations** |
| 1. Recommend of a number sites (large and small) for further analysis with some indication of future costings to develop feasibility and finally implementation. 2. Consideration of sites that will help the development of future guidance and protocols for both large scale and small scale dredging and large and small scale requirements. 3. Some consideration of costs of further phases to complete project, including the building of a “Love Mapping” system |

### Deliverable

1. Production of a report, based on the findings of the study, setting out conclusions regarding viability and recommendations.
2. Report to be delivered within agreed timescales and within budget.

### Acceptance Criteria

1. Report to be endorsed by the Project Steering Group and accepted by Solent Forum.

## Scope

### Inclusions –

1. A light touch literature and data review, including of relevant sediment management and beneficial reuse projects.
2. Collation and analysis of existing information which has specific relevance to the elements set out in 2.1 above.
3. An element to include the exchange of information between partners, building a stakeholder network and a forum for exchange. Explore techniques such as surveys and workshop meetings
4. Identification of potential areas of contra-indications in the conclusions of existing research findings.
5. A firm indication of the viability of a habitat management project reusing dredged material sourced either within or outside the Solent

### Exclusions

### No new field research to be undertaken at this stage, with the exception of partner surveys and workshops

### No unsubstantiated assumptions.

## Assumptions

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

## Proposed Project partners and stakeholders.

**Project Group (PG)**

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| Karen McHugh | KM | Chair, Solent Forum (SF) |
| Adam Cave | AC | Environment Agency (EA) |
| Hilary Crane | HC | Natural England (NE) |
| 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 |
| ?? | SC | Eastern Solent Coastal Partnership (ESCP) TBC |

**Stakeholder Organisations**

* Marine Management Organisation
* The Crown Estate
* Solent Harbour Authorities
* Solent Local Authorities
* Eastern Solent Coastal Partnership
* Southern Coastal group/SCOPAC (research budget)
* Channel Coastal Observatory (CCO)
* Environment Agency
* Natural England
* Dredging contractors (e.g. Westminster Dredging, Boskalis, Hanson, ML Dredging)
* Owners/operators of dredge sites (harbour authorities, yards, marinas, clubs etc)
* CEDA
* RSPB – (Horsea Island)
* Solent Protection Society
* Landowners of potential receiver sites
* Environmental consultancies
* Academic & research sector
* Coastal Partnerships and Coastal Partnership Network

## Known Risks

* + Data and/or literature are not made available.
  + Data or literature incurs an excessive fee.
  + Appointed consultant fails to adequately answer the brief.

## Approach

This project brief covers Phase 1 of a potentially larger project. Phase 1 relates to the identification of relevant sources of information, associated analysis and production of a report. Potential future stages, which are dependant of the findings of the viability report, are set on the Terms of Reference (See weblink http://www.solentforum.org/services/buds/)

# Outline project plan

## Provisional Timescales

Award of contract to consultant by January 2016

Four months to complete the desk-top study.

## Provisional Resource requirements

* Consultant
* Solent Forum input
* Consultees’ time
* Input from partner stakeholders vi survey methods
* Data and reports

## Provisional Cost estimates

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

# 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 and will be subject to quality assurance by the Project Group It is likely to be made available in the public domain in due course.

***Status of Project Brief***

*Final*