

2018

Ecological Report to assess the impact of the insertion of wooden stakes to retain mudbank to protect existing slipway at Emsworth Sailing Club



HAVANT BOROUGH
COUNCIL

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Emsworth Sailing Club Ecological Report

1. Introduction and Terms of Reference

- 1.1. The purpose of this report is to describe the habitat of the beach and foreshore mud land being eroded adjacent to the slipway at Emsworth Sailing Club. The cause of erosion is identified and an acceptable solution is offered to prevent further erosion to the foreshore from taking place whilst safeguarding protected species and habitats. This report will provide supporting information for submission with a planning application to Havant Borough Council.
- 1.2. The club wishes to protect the existing mud bank to the northeast of the existing concrete slipway. To achieve this, the club proposes to insert wooden stakes along the line of the existing mud bank at the same height as the existing mud bank. They then wish to backfill mud from the eroded bank to its original level to protect the existing concrete slipway owned by the club and prevent it from being undermined.
- 1.3. **This report has now been amended** and concludes that use of a digger to install a timber post revetment would provide minimal impact upon marine sediments from being disturbed. This would be achieved by operating from either slipway or on a matt on top of the stable section of the beach.

2. Location of site and designations

- 2.1. Emsworth Sailing Club is located in Chichester Harbour A.O.N.B. and the mud bank/channel is below mean high water. A site and location plan is provided with the planning application attached to this report. For information the site for the proposed works lies within International Ramsar site; a designated Special Protection Area for birds, (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest, (SSSI). The proposal seeks to maintain the existing mud bank and slipway for an existing harbour user with least impact to protected species and habitats within Chichester Harbour AONB as recommended in Chichester Harbour Conservancy's Planning Principles First Edition Policy, PP11 Intertidal structures. This proposal recognises the value of this habitat and assumes a principle of ensuring no habitat loss or alteration occurs as a result of works undertaken, complying with the Havant Borough Core Strategy 2011 Policies CS11, CS12 and DM9.

3. Methodology – Survey

- 3.1. I undertook a site visit early morning on Saturday 13th May 2017 in fair weather conditions at low tide. This was to assess the existing level of erosion of the bank and the whether the

proposals outlined in paragraph 1.2, will have any impact on the ecological features of the designated sites listed in paragraph 2.1. And if any mitigation is required. I took photos of the existing area to enable good analysis.



4. Discussion and Analysis of Results

- 4.1. Photos 1, 2 and 3 show how water from the tidal mill pond outfall has become channeled over time towards the side of the slipway causing erosion to a clay bank as the tide goes out. This channel is now starting to undermine the foreshore beach and mud bank that supports the base of the slipway.
- 4.2. This erosion will have the effect of increasing the depth of water alongside the slipway and may increase the hazard to users launching from this facility. It may ultimately undermine the concrete base to the slipway. The movement of this channel has clearly resulted in erosion to the foreshore shingle and clay deposits forming an earth bank alongside this slipway.
- 4.3. This channel has historically cut through the designated intertidal mud land habitat recognised for its importance for marine macro invertebrates used by winter waders and breeding seabirds as feeding grounds. There has been no loss of any vegetated shingle or spartina beds from the foreshore as this habitat is not present (as clearly shown from the photographs of the site in Appendix 1).
- 4.4. The erosion to the foreshore beach is eroding clay earth not previously exposed to sea water. Photo 1 shows a large lump of clay earth that has fallen into the outfall channel. Loose shingle provides a small foreshore beach between the slip way and the seawall covering the clay earth deposit which is being undermined by the discharge water from the tidal mill pond.

5.0. Conclusions.

- 5.1. There are some positives to be concluded which are:
- Discharge water is not causing erosion to the lower mud flat habitats or causing vertical scour (deepening of this channel). Therefore placing proposed wooden stakes to fix the location of this channel will not result in any habitat loss of mudflats but help to maintain the current location of this channel.
 - The proposed wooden stakes will then protect/prevent erosion or scour to the foreshore beach and clay earth bank deposits (occurring as a result of this historic man made outfall).

- The proposal of installing a row of wooden stakes in front of this vertical bank will not impact the existing open mudflat habitats which are the key habitat in this location.
- Over time the foreshore may recover and allow the establishment of marine vegetated shingle or lower spartina beds currently not present. However it should be recognised this is unlikely because of the exposed nature of this site and there is a historic loss of such habitats in this location.

6.0. Recommendations

6.1. To enable a minimal impact on the habitat and disturbance to species the works would need to be:

- Undertaken outside of the bird wintering period October – March.
- Restoration work needs to have minimal disturbance upon the mud banks and shingle beach where it exists. Careful use of an excavator with an auger could avoid a lot of disturbance to the surrounding sediments (significantly less than by trying to install by hand). The proposed wooden stakes should be driven into place with the use of a long reach excavator to push posts in from Emsworth Sailing Club slipway without impacting marine sediments and mudland. The use of a mat or plywood sheeting would provide an acceptable method of reaching the middle section of posts further away from the slipway. This would prevent compaction and slippage of sediment adjacent to the slipway.

6.2. The installation of wooden stakes will help to fix the position of the outfall channel and therefore prevent erosion to the foreshore beach and slipway bank. The mudland to the east of the channel will remain unaffected by this work.



Appendix 1

Photo 1. Existing channel from the slipway looking due north back towards club house and mill pond outfall.



Photo 2. View of existing channel in its wider context from Sailing Club to the southwest showing slipway and outfall channel.





Photo 3. Existing channel from the foreshore to the east

