

9 Conclusions and Recommendations

The study has identified that the maintain and repair until failure option is the preferred management strategy for Mullion Harbour for the next 100 years. The study is endorsed by the stakeholder group, which has made a significant contribution to the project and its findings. This option is also supported by the Mullion Harbour Association, the Mullion Parish Council and the Trust's Projects and Acquisitions committee.

The option provides a viable management strategy for the future which enables the community and the Trust to balance the environmental, technical, risk and economic considerations associated with Mullion Harbour. It will allow the community, visitors and Trust members to enjoy the harbour for as long as practicable while recognising that the Trust does not have the resources to sustain the harbour indefinitely and that there will come a time when the harbour is damaged beyond repair.

It is therefore recommended that the maintain and repair until failure strategy be implemented by the Trust. The following initial works identified for this strategy in Section 3.5 should be undertaken:

- Concrete repairs to the end of the Western Breakwater where scour has occurred.
- Bagwork to the seaward side of the Western Breakwater.
- Pressure pointing to the end and the seaward side of the Western Breakwater.
- Grouting of the Northern Quay in the north west corner.
- Local areas of repointing to the walls (including the parapet), paving and slipway.

It is also recommended that the following inspection and maintenance programme (refer to Section 3.5) be established:

- Inspections
 - Annually: visual inspections, including inspection from a boat to guide the maintenance programme on a year-to-year basis.
 - Five-yearly: detailed visual and dive inspections to guide the general and structural maintenance programme.
- General maintenance (provisional, based on the present condition of the structures, the loadings on each element and the history of defects)
 - Annually: repointing to the walls, copings, setts and slipway.
 - Five-yearly: Local areas of pressure pointing to walls, bagwork to seaward face of Western Breakwater, concrete toe repair to end of Western Breakwater, handrail, ladder and fender maintenance/repair.
 - Ten-yearly: bagwork to seaward face of Southern Breakwater, localised grouting, based on observations, local areas of copings, setts and slipway re-laid.
 - Twenty five-yearly: widespread grouting.

- Structural maintenance (provisional, based on the present condition of the structures, the loadings on each element and the expected deterioration of the structures)
 - Within 10 years: rebuild 30m of parapet (the remaining length not done in 1998), refurbish lamp house.
 - Within 50 years: re-pile toe at end of Western Breakwater, rebuild Western Breakwater steps, replace Southern Breakwater ties, replace concrete access bridges to Southern Breakwater.
 - Within 100 years: replace some Western Breakwater ties.

It is further recommended that the management strategy should be reviewed at five-yearly intervals, taking into consideration developments in climate change science, changes in the harbour structures and changes in the community and environment.