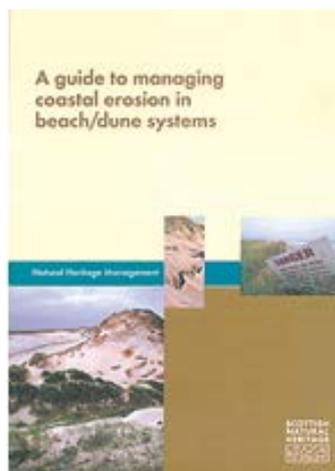


Coastal Erosion

Scotland's beaches and dunes are an attractive and important element of our natural heritage and an integral part of many of our golf links courses. Most of Scotland's beaches are constantly changing and eroding as part of natural hydrological processes, but as our climate changes and our severe weather events increase, many golf clubs are finding erosion or storm deposits are having an increased impact on their courses.

The removal and clearance of storm deposits on the golf course back to the area they came from on the beach and the different techniques to manage further erosion can be varied and we recommend the following approach:

- First, to define responsibilities and duties regarding the management / maintenance of the coast the club needs to confirm exactly where their boundary extends to and what is Crown Land by consulting deeds / land registry.
- Consult Scottish Natural Heritage's publication: [A guide to managing coastal erosion in beach/dune systems \(SNH 2000\)](#)



- The club must ensure they have considered adaptive management prior to any further defence operations (see page 45-48 SNH Guide) and it may be necessary for the club to prove it is worthy of defending in terms of its economic/social and environmental value to the local community.

- Pay particular attention to SNH Guide pages 20-23 for the requirements for **consents and permissions**. (Coast Protection Act consent from SNH / SEPA, Planning permission etc.)
- The SNH Guide pages 49-60 details many alternatives to hard rock defences - all of which should be considered. These softer options are much less visually obtrusive and more economically viable for golf clubs. Fencing may also be an option.
- Re-seeding of dunes may also be another option – some funding may be available for this from your local authority.
- Following consultation, prioritise areas of work and start costing work before deciding on timetable of work. Various consents / approvals may take time.



Artificial reef to minimise wind erosion may be one possible solution



Some re-seeding and/or transplanting of dune grasses can help dune stabilisation behind an artificial reef

Further information / contacts

- **Speak to other clubs** that have experienced similar issues e.g. St Andrews Links Trust (see case study), Crail Golfing Society, Elie Golf Club and Montrose Golf Links.
- **Speak to your Local Authority** to discuss how they can help and other works in the area.
- **Scottish Natural Heritage (SNH)**
 - Coastal geo-morphologists can advise on potential solutions, legislative requirements etc: Alistair Rennie, Policy and Advice Directorate Tel: 01463 725231.
E-mail:
 - Also see <http://www.snh.gov.uk/land-and-sea/managing-coasts-and-sea/coastal-development/>
- The Scottish Government led **National Coastal Change Assessment (NCCA)** project is conducting a national survey and assessment into the changes to our coastline and details can be found at www.dynamiccoast.com
- **Scottish Environment Protection Agency (SEPA)**
 - Read the Controlled Activities Regulations (CAR) regarding legislation for working on burns/watercourses
http://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf
 - You may need to consult SEPA under the Coastal Protection Act (Your local authority and SNH will advise on this).
- **Crown Estates**
 - They will need to be consulted if solutions are on foreshore or below High Water Mark of Ordinary Spring Tides (HWMOST).
- **Sand Dune and Shingle Network – Liverpool Hope University**
 - You may also visit this website for some useful advice regarding technical advice

Funding

Scottish Golf is unaware of any funds and grants currently available for coastal erosion works. We suggest you contact your local authority and the other contacts above to discuss funding as well as technical advice and man-power/tool hire, etc.