

GC2030



Golf Course 2030

Supporting Golf Courses in Addressing Coastal Change



Golf Course 2030 was established to support practical research for golf courses to remain accessible and enjoyable in the face of sustainability pressures and to better communicate the role that golfing venues can play in a sustainable future for our planet.

Climate action remains a priority for the golf industry. Various projects have sought to develop better understanding of how golf courses can measure and improve their climate impact, and which mitigation and adaptation measures will be required in the future.

With this in mind, a series of projects exploring the relationship between climate and coastal golf courses were developed under Golf Course 2030 in close collaboration with the industry.

Coastal golf courses in the UK and globally can be extremely important in terms of economic, social and biodiversity value. Many are integral to the heritage of the sport and are at the heart of their communities.

As coastal stakeholders they can contribute to the ongoing sustainability of their own and neighbouring communities in the short, medium and long term.

The Golf Course 2030 projects, produced by leading researchers and consultants in their field, are designed to help coastal golf courses develop a strategic long term approach to coastal management. Through better understanding of the coastal processes they are part of, the relationships they have and the options available to them, golf courses can secure their sustainable future as part of thriving coastal communities.

The R&A has worked with national governing bodies to develop these resources for coastal clubs.

To discuss how your national governing body can support your club contact:



ENGLAND GOLF

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Scottish Golf

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In many areas, golf courses are at the forefront of coastal management and adaptation to climate change as a result of their location and through their recreational, environmental and landscape value. The toolbox of templates, tools and guidance documents from Golf Course 2030 enables golf courses to engage with the broader societal process of managing coastal change, sustaining their essential function of providing an exhilarating opportunity for playing the sport.

A toolbox to help coastal golf courses take a pro-active approach

Coastal change is threatening various golf courses around the UK and Ireland, while climate change further increases the threat. Like most private landowners, it is often difficult for golf courses to address these issues, which are technically complex, while the legal framework can be hard to understand. The best way for golf courses to meet the challenge is to take a pro-active role in a wider coastal change management process that is coordinated by public bodies in each of the nations of Great Britain and Ireland.

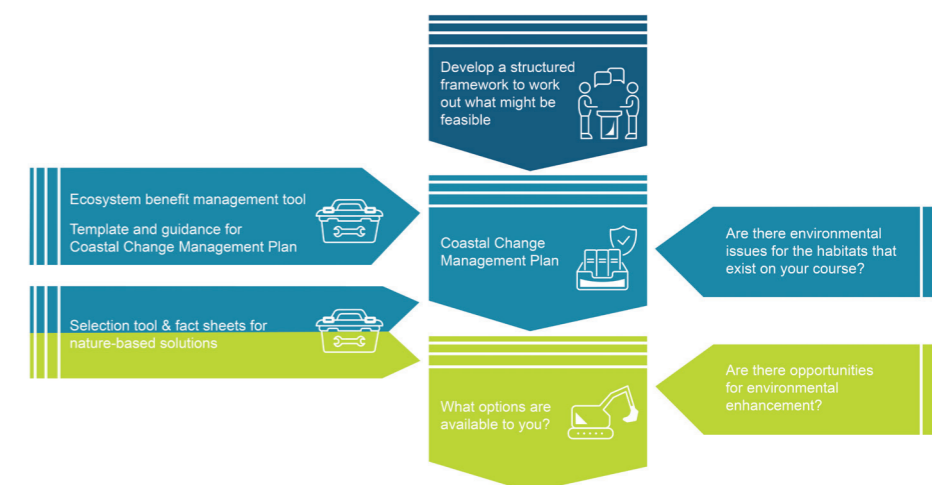
Coastal management means trying to achieve a balance between the need for management (to sustain existing land use) and the natural shoreline's ability to adjust to change. This requires a long term perspective to consider how the golf course can adapt within its

naturally dynamic environment while sustaining its essential function of providing an exhilarating opportunity for playing the sport.

For many courses, this includes a strong historical connection and the desire to sustain particular holes, greens and tees in their historic state.

Golf courses cannot do this on their own. The R&A Golf Course 2030 Initiative aims to establish a sound framework for taking forward future management of golf courses. As part of this initiative, Royal

HaskoningDHV has developed a toolbox of templates, tools and guidance documents which aim to help clubs get ahead of the game in planning for change and addressing concerns about coastal change. This toolbox includes a template for a **Coastal Change Management Plan** and an associated guidance document, a **Selection Tool for Nature-Based Solutions** and associated fact sheets, and an **Ecosystem Benefits Management Tool** and associated background information and guidance.



This figure summarises how the toolbox (on the left of the figure) can help address coastal golf course's challenges.



Coastal Change Management Plan

The coast is where many different interests come together and overlap, which is reflected in its governance. Management approaches are progressing towards a more integrated approach that aims to balance all values and features on the coast. Another area of progress concerns adaptation to coastal change, recognising that holding the line in its current location is not always possible everywhere, while it is important to plan early for any future transition. Finally, there is a move toward adaptive planning. Precise future trends are uncertain, even if the direction of travel is known. Therefore, it is important to ensure that coastal management can prevent regrettable solutions and be adapted over time.

In many areas, golf courses are at the forefront of coastal management as a result of their position and recreational, environmental and landscape value. Golf courses can and must engage with this process of change and way of thinking. This can pose significant challenges.

The important features of a course often interact with the dynamic zone of the shoreline and are therefore under pressure. In some areas, golf courses are already at risk of erosion and/or flooding, or will become at risk in the future as a result of climate change. They often rely on natural features such as beaches, dunes and saltmarshes for their defence against coastal erosion and/or flooding.

There is a critical balance to be achieved between the need for management (to sustain existing land use) and the natural shoreline's ability to adjust to change. This requires a long term perspective which considers how the golf course adapts within its naturally dynamic environment while providing an exhilarating opportunity for playing the sport. For many courses, this includes a strong historical connection and the desire to sustain particular holes in their historic state.

Golf courses cannot do this on their own. The process of developing a Coastal Change Management Plan will help to identify opportunities for partnering with other organisations, businesses and stakeholders.

This can bring opportunities for co-funding whilst also facilitating an integrated approach to managing the features and values of the coast.

On the other hand, golf courses can add value to wider coastal management because of their knowledge, understanding and experience of the local coastal processes and specific challenges for coastal management. When combined with existing evidence, there is real opportunity to realise win-win and pro-active solutions for a golf course's future and the sustainable management of the wider coast.

The Coastal Change Management Plan aims to provide a structured framework to allow the coastal golf course manager to gain an understanding of what might be feasible. It will help them to determine realistic opportunities, highlighting how this could enable collaboration with other stakeholders and provide a platform for meaningful engagement.

By going through the process of preparing the Plan, the golf course manager will establish practical routes for engagement with the wider coastal management community.

Golf Course 2030 has developed a template and accompanying guidance document which lead the golf course manager through the process of considering:

- The club's context
- How management of the golf course fits within broader coastal management
- What aspects need to be considered and how
- What the issues actually are.

Once completed, the overall aim of the template and guidance is to provide the framework for a Coastal Management Plan that is tailored to the golf course.



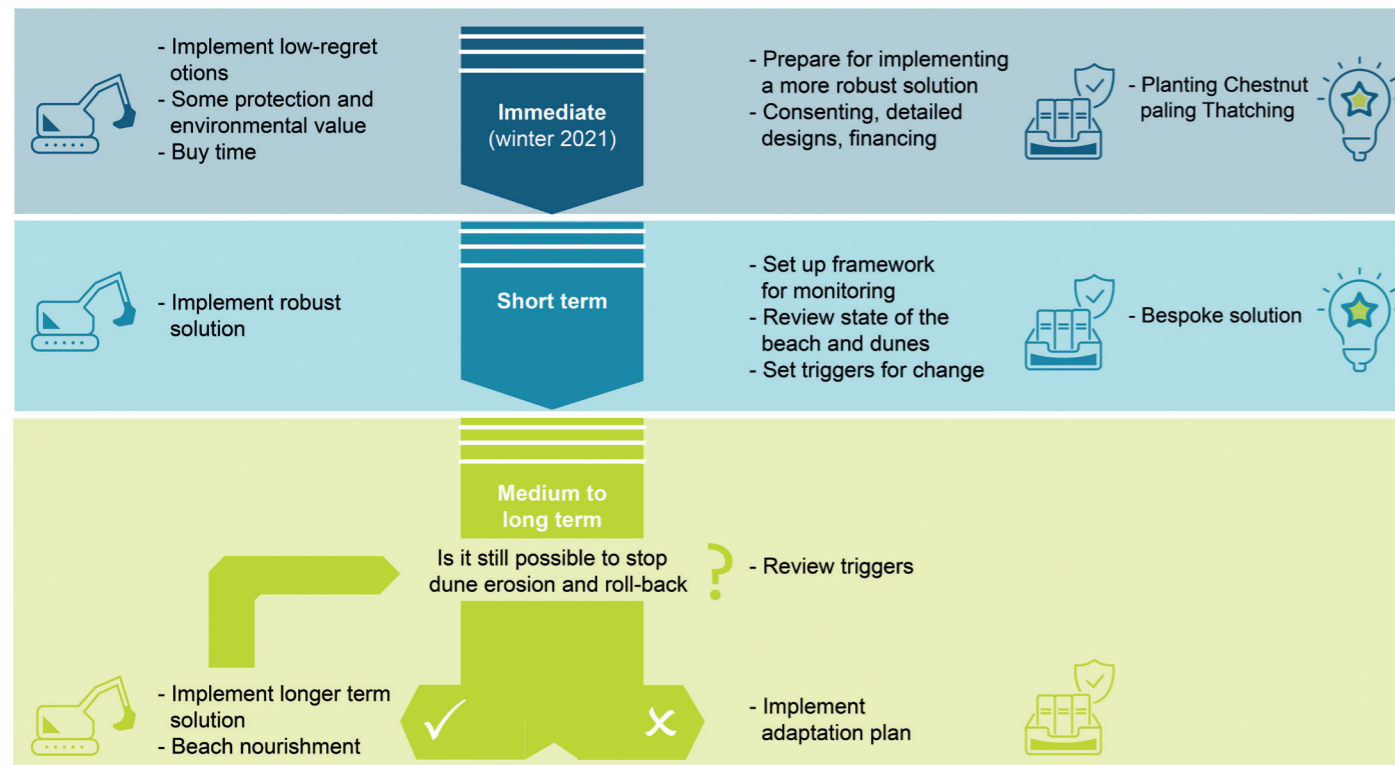
Making the best decisions despite an uncertain future

Developing and implementing a Coastal Change Management Plan gives golf courses the opportunity to contribute to more integrated, progressive and sustainable management of the coastal zone while maintaining their own values. It's a chance to be in the driving seat, being pro-active rather than reactive to coastal processes, events and wider coastal management.

A tailored plan is likely to highlight uncertainties around certain aspects into the future. This might include uncertainties about how the coast will respond to future changes in climate (which are also uncertain in their magnitude) or whether certain options/solutions will obtain the necessary permissions or consents,

plus uncertainties around the future plans for the course itself. Management decisions to address these uncertainties can either be developed following a 'precautionary approach', such as assuming the worst in terms of coastal change and investing in measures to ensure a high level of protection, while accepting the other negative impacts of potentially overdesigned measures. Usually, the preferred alternative is to follow a 'managed adaptive' approach. This involves investing in low-regret measures whilst undertaking monitoring or further studies/assessments to provide clarity around the uncertainties and based on predefined triggers.

The graphic below visualises a managed adaptive plan that Royal HaskoningDHV developed for St Enodoc Golf Course in Cornwall.



Selection Tool for Nature-Based Solutions & Fact Sheets

Currently, there is a strong perception within the golfing community that coastal management measures are always hard structures. This goes hand in hand with a broad preference for a hold-the-line approach. Unfortunately, these solutions are typically expensive, and often come with negative wider impacts, making it difficult to get consent. There are, however, numerous alternatives.

Innovative nature-based coastal management solutions and ecosystem benefits have been emerging in coastal management over the last 10 to 15 years, but are still not fully embedded in the coastal management profession. They are still seen as 'different', and requiring promotion to ensure a level playing field compared to more traditional approaches. If this is the case for coastal management professionals, then it is certainly also the case for the non-expert coastal landowners of the golfing community.

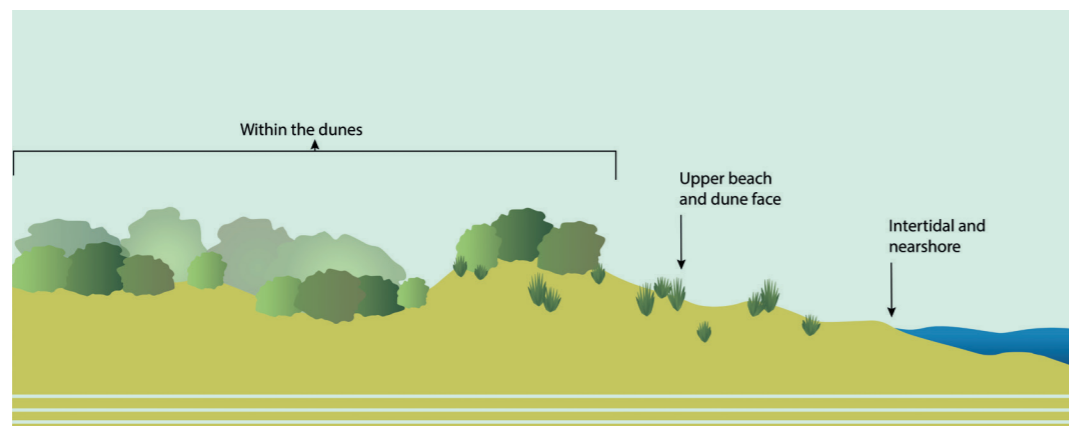
Coastal golf courses are at the forefront of coastal change. They have direct experience of the need to balance the social, economic and environmental functions of the coastal zone, having to find win-win solutions and consider how to adapt to coastal change in an affordable

way to sustain the features that work. These are the drivers that have spawned innovative coastal management solutions, so it is important that the wider golfing community also adds them to its portfolio of management approaches.

Our Nature-Based Solutions aim to expand the golf course manager's knowledge by presenting a range of innovative options for coastal management. Their main characteristics include conditions where they are applicable, their pros and cons, ecosystem benefit considerations and ballpark costs.

Using the Selection Tool enables the golf course manager to get an overview of innovative solutions that could work for them, based on a set of questions that characterises their golf course's situation. Most of these questions are in line with and can be answered using the Coastal Change Management Plan. The nature-based options offered within the Selection Tool are included alongside traditional, hard solutions to show where they can add benefit. Some of those benefits can be explored further and more explicitly in the Ecosystem Benefits Management Tool described on the following page.

Using the Selection Tool for Nature-Based Solutions, the coastal golf course manager can get a first overview of innovative solutions that could work for them, based on a set of questions that characterises their golf course's situation.



Ecosystem Benefits Management Tool

Natural features of the coast, such as dunes, beaches and saltmarsh, can help reduce risk, create benefits for the club and even generate co-funding. We have developed an Ecosystem Benefits Management Tool and accompanying guidance to help coastal golf course managers recognise these ecosystem benefits and use them as part of golf course management.

The Ecosystem Benefits Management Tool provides a greater understanding of coastal ecosystems from an ecological perspective and outlines how healthy ecosystems can provide wider benefits in a multitude of ways. It helps assess the value of different habitats present in coastal golf course environments, including the coast protection value, carbon capture and sequestration, recreational value and overall value for ecosystem services, plus the benefits that enhancing these services would bring.

These benefits can apply directly to the golf course or they can apply to wider society. In some cases, these wider benefits could generate co-funding for the golf course's management activities, if they help to create or maintain those benefits. The tool enables early assessment of possible benefits and also highlights instances when expert opinion should be sought to ensure a thorough understanding of the ecological interactions when requiring greater detail. The tool gives bespoke information for each of the nations of Great Britain and Ireland, providing links to habitat designation mapping for each nation and explaining which legislation applies to each part of the coastal zone.

Piloting

We have piloted the Coastal Change Management Plan at Aberdovey and Formby Golf Clubs. The piloting process was essential in providing a practical steer in the development of the Coastal Change Management Plan's guidance and template. The piloting process resulted in a Coastal Change Management Plan for both golf clubs which they are now taking forward.

The role of the Reference Group

The development of the toolbox of templates, tools and guidance documents was supported and guided by a Reference Group, consisting of representatives from both the coastal management and golfing communities. These people have agreed to be available as a sounding board for golf courses with coastal change challenges.

Representatives from the Coastal Management Community

- Dr Alistair Rennie – Dynamic Coast & NatureScot, Scotland
- Bryan Curtis – Coastal Groups, England
- Ceri Seaton – Natural Resources Wales
- Dr Joanne Hanna – Department of Agriculture, Environment and Rural Affairs, Northern Ireland
- Jim Casey – Office of Public Works, Republic of Ireland

Representatives from the Golfing Community

- Sandy Reid – St Andrews Links Trust (Scotland)
- Stuart Leech – Secretary/ Manager of Formby Golf Club (England)
- David Tomkinson – Chair of Greens of Aberdovey Golf Course (Wales)
- David O'Donovan – County Sligo Golf Club, Rosses Point (Ireland)
- David Hopkins – Formby Golf Club (England)

If you would like to discuss how to access specific guidance on coastal management for your golf course, you can contact these project team members:

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