



“Royal HaskoningDHV’s technical expertise and innovative approach enabled us to deliver a visionary and sustainable plan for SMP2 Review coastline. Their focus on both meeting stakeholder requirements and delivering to time and budget meant we were able to meet the deadline for submission of the plan to Defra.”

Dr David Harlow
Coast Protection Manager, Bournemouth
Borough Council

Protecting Bournemouth’s coastline for the future

The UK shoreline has been constantly changing for millions of years, sometimes gradually, sometimes dramatically, and these changes have created some of the coast’s most beautiful and important features. Over the next century the forecast is for more frequent storms, increasing wave heights and rainfall, and rising sea levels. All pose a threat to the coastal environment and the livelihoods of the people who live and work in these areas.

In the past coastal defences were built to protect communities, usually on an ad-hoc basis and over relatively short lengths of coastline, and not always with understanding of the possible impact on other locations.

Since 1994 Shoreline Management Plans (SMPs), funded by the UK government, have provided a more strategic and sustainable approach to coastal defence – and Royal HaskoningDHV has won many public tenders to develop and review these plans.

Between October 2008 and July 2010, Royal HaskoningDHV worked with Bournemouth Borough Council to review the 1999 SMP, contributing its considerable knowledge of shoreline management to provide technical guidance and support to the Steering Committee. This included the Operating Authorities, namely, Christchurch, Bournemouth, Poole, New Forest and Purbeck, and the Environment Agency, and associate partners such as Natural England, National Trust, Dorset and Hampshire County Council, Poole Harbour Commissioners and English Heritage. The revised version was approved by Bournemouth’s Cabinet in June 2010.

Background

The south coast of England has some of the most dramatic and beautiful coastal scenery in the United Kingdom and the new plan covers a 118 mile stretch including Bournemouth, Christchurch and Poole harbours and the local river estuaries between Hurst Spit in the east and Durlston Head in the west.

Tourism is a vital part of the local and regional economy and the coast is important for recreation and leisure activities. While Bournemouth is renowned for its long sandy beaches, Poole has one of the largest harbours in the world and its mainly shallow waters make it ideal for water sports.



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The area is also important ecologically, providing feeding grounds for large populations of bird species such as waders, gulls and waterfowl. The cliffs, dunes and beaches contain sites of local, national and international environmental significance because of their unique or scarce habitat, or geological interest.

The challenge

One of the challenges for Royal HaskoningDHV's project team was to balance the economic, social and environmental costs of continuing to protect this shoreline, while accepting that future coastal management must allow natural habitats and features to adapt to natural changes such as rising sea levels, cliff erosion and flooding. It also had to be realistic about national budgets and priorities.

The team used an innovative and visionary approach to help formulate a plan for the long-term management of flooding and erosion risks in this coastal area. The new plan strikes a balance between these risks, natural processes and the consequences of climate change, and links in with the plans for adjacent coastal areas. It also takes account of existing coastal defences and the social, natural and historic environment.

The document sets out the best management policy for each section of coastline in accordance with guidelines issued by Defra (the Department for Environment, Food and Rural Affairs).

While the original plan aimed to maintain the coastline in its current state, the new plan brought new ideas to the table and focussed on considering what would be the best scenario for this coastline in a hundred years time.

The solution

Royal HaskoningDHV's response was to bring a better understanding of a 'Managed Realignment' policy, where the coastline is allowed to change with the forces of nature. With the project team's expert guidance, the Steering Committee has produced a strategic and visionary plan for coastal flooding and erosion risk management over the next 20, 50 and 100 years, which does not commit future generations to costly and unsustainable management, but aims to balance potential conflicting interests.

For most of Bournemouth's coastline, the recommendation is to 'Hold the Line/Advance the Line (in later epochs)' and maintain the existing landscape, if sustainable. For some areas, such as Brownsea Island, a non-interventional approach has been proposed where only limited maintenance on the deteriorating local defences is undertaken. Controversially, on some sections of the SMP coastline there may be loss of property where there is a major risk of cliff erosion and it could be unsustainable to continue its defence.

The new SMP achieves a balance between the different objectives – accepting that change is necessary and providing a way forward that is both achievable and sustainable given the increasing pressures on the coast. The plan provides a framework which will enable future generations to appreciate the stunning beauty of the Jurassic coast, while protecting the livelihoods of residential communities and wildlife habitats.

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