



Time: 15 mins Region: Scotland Landscape: coastal



#### Location:

West Sands, St Andrews, Fife, KY16

### **Grid reference:**

NO 50400 17200

#### **Directions:**

Stand at the viewing point on Bruce Embankment, St Andrews and look out over West Sands beach. Alternatively take a walk down West Sands beach itself and wander up one of the boardwalks into the sand dunes.

Take a deep breath and savour the salty bite of the sea air. To one side, the North Sea rushes back and forth up the sweep of the beach. To the other, the manicured greens and venerable clubhouse tell us we are in the home of golf.

West Sands beach is the golden paradise where these two worlds meet. The sea is a beautiful but challenging neighbour for the golf courses of St Andrews. Forecasts suggest that large sections of the greens could be lost to the sea over the next couple of decades.

To prevent this from happening, the sand dunes hold a secret which helps to protect the golf courses and the town's heritage.

# What festive solution has come to the aid of St Andrews' famous golf courses?





St Andrews is known as the home of golf because the game has been played here since the 15th century. The town is located on the East Neuk (bend of coast) of Fife, with a long stretch of beach and plenty of sand dunes. The dunes that make an ideal environment for playing golf and explain its long history here. The sandy soil means the land drains well while the firm, gently undulating surface provides an enticing challenge for golfers but means the land is not generally wanted for farming.

Today there are seven internationally renowned courses around the town. However, the New, Old and Jubilee Courses, which adjoin West Sands beach are at increasing risk of flooding. A combination of factors are to blame, including global warming, rising sea levels and an increase in extreme weather events. Waves wash sand up the beach and winds strip it from the dunes in a process called erosion. This leaves the greens at the mercy of storm surges and high water. Some predictions claim that the Old Course could be lost entirely by 2050!

Golf is a central part of St Andrews' heritage. Records show that locals played the game here from at least 1552. Golf is also vital to Scotland's economy; when St Andrews held the Open Championship in 2015 it generated over £140 million for the country. Besides offering enjoyment, the courses are also a mosaic of habitats for a range of wildlife. Giving up the land to the sea is just not an option.

West Sands Beach acts as a natural buffer between the golf courses and the sea. So the best way to protect the courses is to protect the beach and dunes from erosion. The course managers, St Andrews Links Trust, work with a series of partners including Fife Coast & Countryside Trust (FCCT) and Scottish Natural Heritage to do this. They have tried a range of methods including 'hard' (technical) and 'soft' (more natural) approaches.

Hard approaches have included installing 100 metres of metal caging in the north of West Sands. The metal cages are filled with stones and covered with sand so they look like a long dune. This protects the real sand dunes behind it. The Trust also collected sand from Out Head (at the mouth of the River Eden) and moved it further south down the beach, a process called beach feeding.

Soft approaches have included using chestnut paling fences and planting Marram grass. Both of these trap sand and help stabilise the dunes. Once plants start colonising them, the dunes become more stable and protect the land behind from the waves and wind. But what about the 'festive solution'?

## Treeing off

In Winter 2010 a storm surge wreaked havoc on the dunes in West Sands. Waves breached the dunes in several places and storm winds blasted through them, creating 'blowouts' (holes and depressions). Such bare and exposed stretches of sand encourage more dune loss and let water through to the golf courses beyond. The key to protecting the courses is to fill in any holes and allow the dunes to start regenerating themselves. The Links Trust and FCCT had an ingenious idea about how to do it.

Since it was the festive season, they put out a call for residents to donate their discarded Christmas trees. About 100 trees were gathered and volunteers used them to fill the holes in the sand dunes. Gradually the trees became covered with sand and have become part of the dune system, protecting the golf courses behind them.

Understanding and enhancing the natural processes at work here has proved the most effective way to sustain the beach and dunes, and therefore the golf courses beyond. The dunes protect the golf courses by acting as a buffer to the sea. And now the golf courses protect the dunes through conservation and restoration work. Golfers have realised the important role the dunes play here. This is teeing up to be a great partnership.

Viewpoint created by Helen Rawling.