

6 Future

6.1 Local Development

Naturally, the future of the Braunton Marshes will be shaped by the external pressures of the coming years. As previously mentioned, the historic agricultural landscape on which the Marsh wildlife depends has, and continues to be, influenced by changes within the agricultural industry as a whole. Alongside this changing agricultural context, environmental resources have become increasingly valued, albeit at odds with the intensely competitive market forces, which continue to drive down the wholesale price of agricultural produce. With narrowing profit margins, schemes such as Environmental Stewardship are helping to marry together the two contradictory forces, together with an emphasis on farm diversification across the UK. On the Marshes themselves, only the future will reveal what impact these influences will have in the long term.



Picture by courtesy of Miranda Coleman-Cooke

It is already evident that the area has become increasingly important for its recreational value through the last century, and the North Devon tourism industry continues to flourish. On the Marshes, there is a strong feeling by landowners that increasing visitor numbers and a demand for extended recreational access must be moderated relative to environmental and agricultural concerns. Today, visitors have access to the fringes of the Marsh via the Toll Road, and the public road adjacent to the great field, known locally as the Braith. Visitors can also use the coastal path which runs along the embankments beside the Braunton Marsh pastures, and the car parking area close to the White House, which also provides access to Broadsands, Crow Point, and to Braunton Burrows. There are concerns by landowners, however, that a significant increase in popularity would destroy the tranquillity that makes the Marsh so special and would create further disturbance to wildlife and livestock alike. As such, any moves to promote the area actively, or to encourage extended access to the internal areas of the Marsh, are likely to prove unpopular.

A further implication of the tourism industry has been the use of the public road skirting the Marsh as a local “rat-run”. The overall increase in traffic during the summer months led to proposals over a decade ago for a Braunton Bypass, which would pass along the edge of the Great Field. Fortunately the proposal was turned down at a public enquiry¹. The current Braunton and Wrafton Action Plan contained within the North Devon Local Plan 2006 states a clear policy against any development which would harm the archaeological heritage or setting of the Great Field. However, with the opening of the Barnstaple Western Bypass and Downstream Bridge in 2007, there are fears that the traffic problems faced in Barnstaple will relocate in Braunton, and may consequently result in renewed calls for measures to reduce summer congestion in the village. With the maintenance of existing policies, it is unclear what alternative options might be available. However, the impact on the Marshes must be carefully considered and consulted upon during any future developmental policy reviews.

6.2 Climate Change, Shoreline Management Plans and Estuary Modelling

Natural climatic and geological processes have resulted in a gradual sea-level rise in the South West since the end of the last Ice Age, and it is now widely believed that this sea-level rise is likely to accelerate in the coming century. The intensity of rainfall and windstrength is predicted to increase, along with Atlantic storms producing increasingly powerful waves. Historical development and sea defences have often served to enhance the current impact of sea-level rise, reducing the overall area over which the tidal waters and energy might otherwise be dispersed. Human development has been particularly focused around estuaries due to the services that estuaries can provide, resulting in the loss of many of the natural coastal systems that would otherwise help to mitigate the effect of climatic change. Over the past decade, nationwide Shoreline Management Plans (SMP) have been developed to determine a strategic framework for dealing with the sea-level rise and climatic changes that will increasingly threaten vulnerable parts of our coast. Such strategies include the restoration of natural estuarine systems, where appropriate, in order to reduce the overall risk to more economically significant developments, such as houses and businesses.

With regard to the Braunton Marshes, although embankments held under the trusteeship of the Marsh Inspectors stretch from Velator to the White House, the most significant embankments with regard to sea defence are those at Horsey Island. Unlike the sheltered embankments of the Braunton Pill, the Horsey Island embankments are more exposed and, as mentioned in earlier sections, required reinforcement soon after their construction. The storm of 1910 served to indicate the potential devastation and financial implications when serious damage to sea defences occurs.



THE EMBANKMENTS WERE ONCE ENTIRELY COVERED BY INTRICATE STONE COBBLES



TIDES ERODE BENEATH MODERN CONCRETE REPAIRS

At the time of the Storm, the Horsey Embankment, which receives the brunt of the tidal energy, was owned by wealthy landowners, and the embankment was traditionally maintained with the help of estate tenants. However, the construction and maintenance of sea defences have become increasingly uneconomic, particularly with the increases in labour and material costs during the Twentieth Century. Although the Horsey Embankments remained the responsibility of the landowner in the latter half of the Twentieth Century, it appears that, for a while, the maintenance was also supported by the local water authority. Since this support ended, the expensive task of maintenance has once again become the sole responsibility of the landowner. Today the stone facing, which helps to diffuse the tidal and wave energy, has been washed away in many places. The modern use of concrete reinforcement has proved wholly ineffective, as the tide has simply continued to erode beneath the repair materials. It now appears that parts of the coastal path which run along the top of the Horsey Embankment, maintained by the Northern Devon Coast and Countyside Service, are beginning to subside. The increasing refusal of cattle to drink from the freshwater ponds on Horsey Island over the past two decades suggests salt water intrusion across the embankment is now a problem. In the last year, a problem with the sluice at Horsey Island has also resulted in a return to a tidal regime along the old river channel, and a shift in many areas towards a transitional, brackish-water habitat.

A draft SMP produced in February 1998, suggested that Horsey Island should be deliberately breached, on the grounds that this was the 'only viable long-term option on economic grounds'. As Horsey Island is already an important area for over-wintering birds, the investigation of a retreat option was supported by the RSPB. However the historical significance of the area and the existing resistance capabilities of the Great Bank, which would then become the main sea defence protecting the Marshes and the Great Field, were highlighted by the Braunton Marsh IDB. The original stone facing, which reinforced this Great Bank, was removed following the reclamation of Horsey Island (Appendix 6), and as such, the embankment is now comprised of little more than soil and clay. The SMP pointed out that a far more detailed examination of the technical, economic and environmental implications of breaching the Horsey Island Embankment would be necessary. The final version of the SMP² eventually recommended that the cobbled Horsey Embankment should be observed and monitored.

The most significant move towards this goal of observation and monitoring has occurred within the past year, through the commissioning of a coastal management study by the Taw Torridge Estuary Coastal Officer working group. The study includes geomorphological modelling of the estuary, and the production of a predictive model to indicate the future response of the estuary to climate change. A review of the existing flood and coastal defence systems, including function, performance, condition and residual life, is also anticipated, and is likely to have implications for the recommendations of subsequent SMPs. Ultimately, the Environment Agency and the Local Authority hold the powers of coastal defence, and should the Horsey Embankment be breached, it remains to be seen who would finance any subsequent reinforcement of the Great Bank.

1 - Department of Environment, 1993; Braunton and West Coast Local Plan: Inspectors Report

2 - North Devon and Somerset Coastal Group, 1997; Bridgewater Bay to Bideford Bay Shoreline Management Plan



Picture by courtesy of Maranda Coleman-Cooke

FLOODING OF HORSEY ISLAND DURING SEPTEMBER SPRING TIDES, 2006