



# Marine <sup>update</sup> 52

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## Abbotts Hall Farm

Coastal wetland  
restoration on  
a working farm

Picture the mist rising slowly over a swathe of sea green saltmarsh. Saline creeks meandering between bursts of pink sea lavender. Bubbles rise in the water where mullet, bass and flounder feed on algae, snails and worms. Flustered redshank defend their nests, while shelduck paddle in the muddy tidal fringes. Hear the lazy whisper of wings as a grey heron floats overhead...

Scenes like this are under threat as never before, especially in the south and east of the United Kingdom. Here, for hundred of years, the character of the coastal landscape, its saltmarshes and mudflats, has fashioned a way of life for local communities that is now our heritage. Yet our grandchildren could be the last generation to know the saltmarshes in Essex.



## Doing nothing is no longer an option

We are losing around 100 hectares of saltmarsh in the south and east of England every year, just by doing nothing. The European Habitats Directive bestows a legal duty on the UK to counter this loss and maintain the favourable conservation status of these very special coastal wetlands. However, it is not just for legal reasons that we need to maintain and improve our natural coastal buffers.

## UK Biodiversity Action Plan: Coastal saltmarsh

The overall objectives of this plan are to:

- offset the current losses due to coastal squeeze and erosion;
- maintain the existing extent of saltmarsh habitat of approximately 45,500 hectares; and
- restore the area of saltmarsh to the total area that existed in 1992.

Given space, intertidal wetlands need very little management. They provide great benefits for both wildlife and people at no expense. The problem, however, is that we have taken the space away – and in doing so, we have prevented our coastal wetlands from being naturally self-sustaining. We have taken land from the intertidal zone, drained it and prevented the movement of the high tide line by building seawalls. Where these sea defences protect major



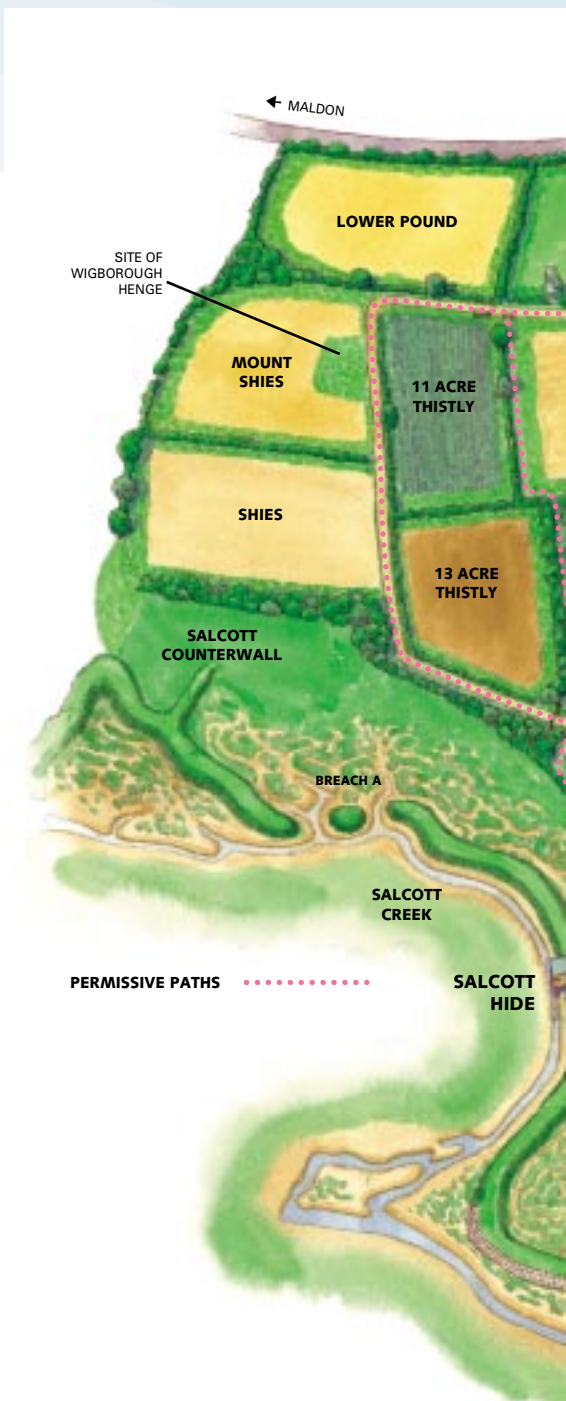
urban settlements, it is vital that they are maintained. However, in many rural areas the case for intertidal habitat recreation as a long-term solution is now well recognised – if little practised.

Four hundred years ago, before we defended the land with sea walls, there were 40,000 hectares of saltmarsh in East Anglia alone. Now we are left with only 2,600 hectares – and further huge losses of coastal wetland and vital wildlife habitat (40-50 per cent globally) are predicted for the next century. To address this major concern, coastal restoration and management have been a key element of The Wildlife Trusts and WWF UK's Joint Marine Programme since its inception in 1997. It is predicted that the UK's saltmarshes, coastal marshes and intertidal mudflats could be radically changed or lost altogether if sea levels rise as predicted, due to global climate change.

## Why Abbots Hall Farm?

During the 1990s, the UK government's coastal policy was held up for scrutiny: evidence was presented by WWF and The Wildlife Trusts to an Agriculture Select Committee, reporting on the likely impacts of climate change on coastal wetlands and research into the economics of coastal flood defence policy. The case was well made for the restoration of coastal wetlands as part of a programme to reduce the risk of flooding, improve the coastal landscape and conserve nature. The scale of the losses described above indicates the magnitude of what is necessary to prevent further losses and what it would take to meet the UK's commitment to biodiversity. However, in order to realise flood defence benefits, the defence realignment that is necessary to create habitat must be in the right location. A demonstration of sufficient scale was desperately needed to trigger a sea change in attitudes and demonstrate coastal defence benefits. Abbots Hall Farm – 283 hectares of arable farmland, saltmarsh, coastal grassland and mudflats on the Blackwater estuary in Essex – is this project.

*A quarter of the salt marshes of Essex have already been lost to erosion and man-made sea defences in the past 25 years. Sea level rise threatens to accelerate these losses.*

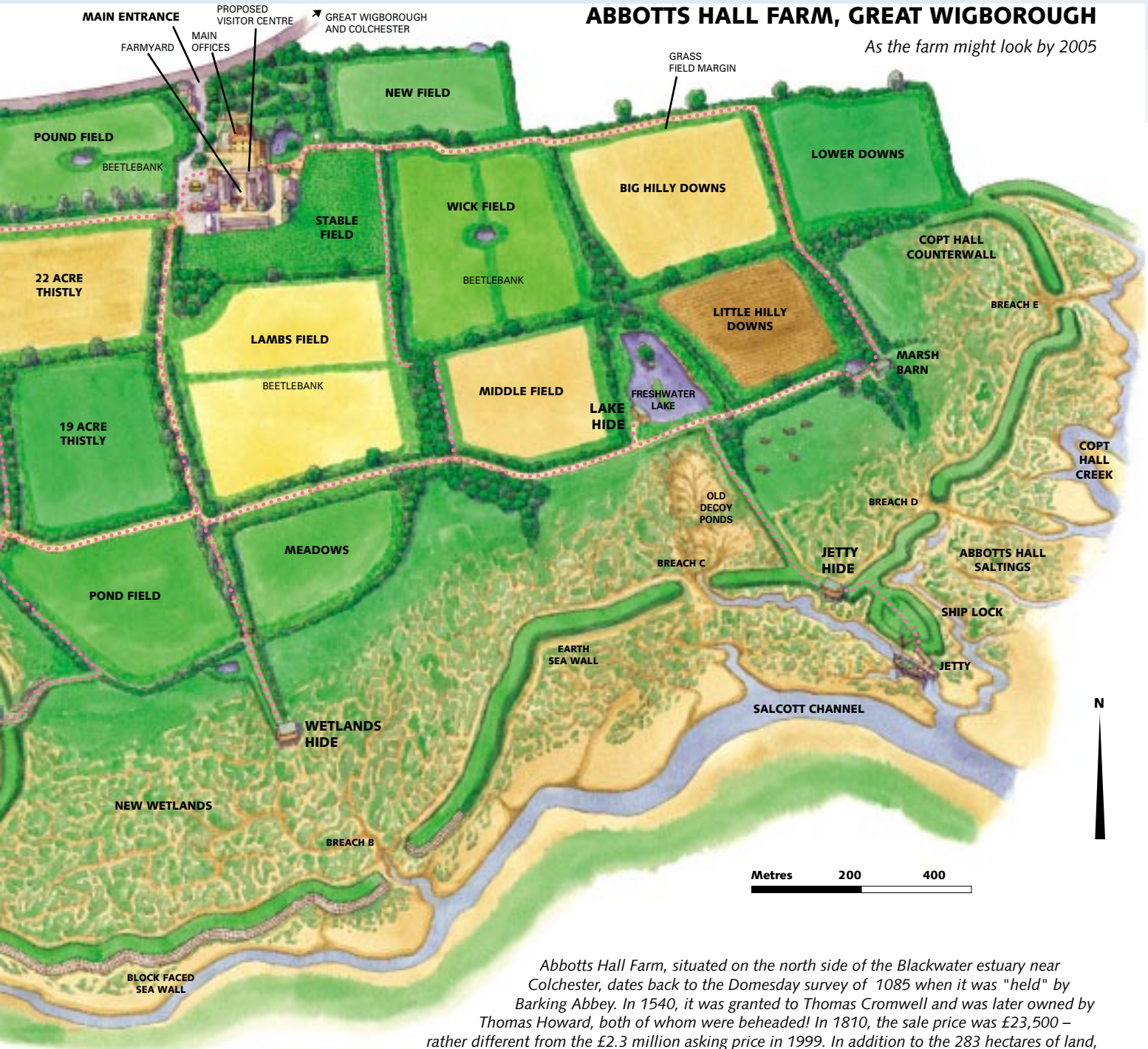


## Meeting the challenge

The Abbots Hall Farm project is special, and different from all previous coastal realignment schemes, because the site occupies a large area in a small sub-estuary and it is an integral part of a larger project which will demonstrate how farming and nature conservation can work side by side on the coast. The size and location of the project will allow experts to learn more about the hydrodynamic and geomorphological effects of coastal realignment in estuaries. The lessons learned will teach us more about how to operate the multi-benefit dynamic coastal management practices that have been developed throughout the 1990s.

## ABBOTTS HALL FARM, GREAT WIGBOROUGH

As the farm might look by 2005



*Abbots Hall Farm, situated on the north side of the Blackwater estuary near Colchester, dates back to the Domesday survey of 1085 when it was "held" by Barking Abbey. In 1540, it was granted to Thomas Cromwell and was later owned by Thomas Howard, both of whom were beheaded! In 1810, the sale price was £23,500 – rather different from the £2.3 million asking price in 1999. In addition to the 283 hectares of land, Abbots Hall comprises farm buildings and three tied cottages*

Abbots Hall Farm is particularly suitable for a coastal realignment programme – moving the coastal defence inland in order to recreate natural coastal defences in the form of tidal wetlands. The current 3km of sea wall defends a relatively narrow, linear strip of arable land between the sea wall and the five-metre contour. The natural gradient of rising land is such that a considerable proportion of the area that can be flooded would be expected to regenerate as natural intertidal habitats.

This coastal restoration scheme involves the Environment Agency





*Estuaries and creeks, saltmarshes and mudflats have fashioned a way of life for coastal communities in Southeast England.*

planning a more sustainable solution to the 3km sea defences by breaching the sea wall. With the help of the Environment Agency and the combined expertise of its partners, Essex Wildlife Trust plans to revert more than 80 hectares of arable land back to saltmarsh, mudflat, coastal grassland and transition habitat. The new habitats will help support wildfowl such as Brent geese, which overwinter here, wading birds such as redshank and lapwing which nest here, and birds of prey including the merlin and short-eared owl. The recreated marshes, saltwater channels and mudflats will also offer habitats for fish spawning and nurseries and for marine invertebrates on which the fish and waders will forage. In addition to nature conservation gains, the recreated coastal habitats will form natural sea defences and act as a sink for nutrient run-off from the surrounding land.

More than 120 hectares of Abbots Hall will remain as arable land. It is the intention of Essex Wildlife Trust to farm this in as wildlife-friendly a way as possible by restoring hedgerows, copses,

ponds, ditches and grass strips to demonstrate how farmland wildlife such as song thrush and skylark can flourish alongside profitable arable farming.

The Environment Agency has worked with Essex Wildlife Trust to complete the new freshwater lake inland of the planned tidal wetland. This will replace the old decoy pond as a new habitat for water voles and other species when the sea wall is breached. The new freshwater lake will

be even better than the old area, with newly planted reed beds to clean water that passes through from a water treatment works nearby. This means that the Abbots Hall site will be helping to make the estuary cleaner. Because of the quality of the local clay soil, the lake did not have to be lined.

In addition to the benefits of adopting managed retreat principles on-site, the project is being carefully monitored to



*The new coastal wetland at Abbots Hall will provide much-needed breeding grounds and a refuge for waders such as this curlew.*



*Swathes of sea lavender thrive on a healthy saltmarsh in summer.*

help the development of realignment techniques. This project provides an ideal opportunity to model the effects of realignment on a small contained estuary. By working through the complex planning procedures necessary for the coastal realignment work, Abbots Hall Management Group will identify the main problems facing land owners dealing with coastal realignment, and we hope to offer advice and possible solutions so this procedure can be reviewed.

### **Working in partnership**

With Essex Wildlife Trust spearheading the joint venture, WWF has committed substantial funds to the purchase of Abbots Hall Farm. The other conservation partners closely involved in this project are The Wildlife Trusts, the Environment Agency, the Heritage Lottery Fund and English Nature.

There are multiple benefits to be gained by WWF and The Wildlife Trusts investing in Abbots Hall Farm. It will provide a vivid and tangible demonstration of the purpose of our coastal policy work. It also relates strongly to our objectives of sustainable rural development and mitigating the

impacts of climate change. As part of a wider strategy for the Essex coast, it will also provide a powerful lever to press for radical change in the implementation of government policy on flood and coastal defence.

Abbots Hall is a partnership project where we can do more by working together than we can in isolation. The Wildlife Trusts and WWF are committed to seeking more innovative solutions for the benefit of people and wildlife at the coast but we cannot do all that is necessary. To keep up with biodiversity targets alone, the

UK needs three or four projects the size of Abbots Hall to go ahead every year. While the Environment Agency is likely to be involved in most tidal defence problems, at other sites we may find ourselves working with other partners, setting new examples.

### **Sharing our experience**

It is not only the technical experts who will be able to watch the changes taking place at Abbots Hall. Farmers, the public, children and politicians will all be welcome to visit and learn about the work and its benefits. Essex Wildlife Trust's new



*The edible marsh samphire or glasswort is one of the first plants to become established on a new saltmarsh*



*By working in partnership, we can restore our coastal wetlands for future generations to enjoy.*

headquarters will be established in the site buildings. As well as managing the working farm and looking after the wildlife, Trust staff will be on hand to arrange visits and give guided tours. Abbots Hall offers tremendous potential for education about managing our coastal countryside. Essex Wildlife Trust and its partners at Abbots Hall are also raising funds for a new visitor centre, where thousands of people can be catered for in the years

ahead. Hides are planned near the new saltmarsh, where visitors can watch the bird life without fear of disturbing it.

Abbots Hall Farm is an example of how things can be done differently, demonstrating how sustainable farming and coastal wetland restoration can work together, how the countryside can be improved and money saved – money which can then be invested in protecting towns and cities against the effects of sea

level rise. It will provide a real window on our ideas that we can share with the community. By showing what is possible we hope to inspire others.

Many organisations and the farming community are watching this innovative project with interest. Lessons learned from Abbots Hall will lead the way for better coastal management where the effects of climate change and sea level rise threaten our rural areas.

Abbots Hall Farm is owned and managed by Essex Wildlife Trust and supported by WWF-UK, Environment Agency, English Nature, Heritage Lottery Fund and The Wildlife Trusts



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