

drained coastal marshes



Integrated landscape character



MAP 14a - Drained Coastal Marshes Key Plan

A flat, open landscape underlain by chalk but dominated by coastal drift deposits. The Drained Coastal Marshes have been claimed from the coastal saltmarshes to form calcareous silts and clay soils. The area is protected from inundation by extensive sea walls (facing the Wash), a shingle bank (at Cley), clay banks and a 16m high extensive dune system at Holkham - the 'Holkham Meals'. Beyond these natural and man-made defences, the Open Coastal Marshes and tidal mudflats stretch out to the sea.

The Drained Coastal Marshes is an evocative landscape, highly valued for its distinctive character and for its ecology. Existing areas of freshwater marsh are important for breeding birds such as redshank and lapwing, and the combination of wetland, grazing marshes and saline lagoons are valuable for wintering wildfowl such as pink footed geese. But it is a transitional landscape - its character and the balance between freshwater and saline habitats is shifting in response to rising sea levels. The proportions of arable farmland: wet pasture: wetland will depend on levels of coastal defence, the threat of coastal flooding and policy decisions for their management. The result is likely to be an evolving landscape mosaic, where the balance gradually shifts (over a long timescale) towards inter-tidal and wetland habitats.

The Drained Coastal Marshes are flat, with only minor variations, and drained by a combination of straight drainage ditches and meandering rivers and creeks, many of which have been diverted during the drainage process. While most early settlers lived on the higher land on the fringes of the inter-tidal marsh, there are the remains of a simple Iron Age Fort on a defensible 'dry' enclave at Holkham. Change has long been a characteristic feature of the Drained Coastal Marshes and the area has been subject to repeated reclamation since Roman times. Mapped evidence suggests an unstable process, with periods of intensive agriculture followed by temporary reversion to marshland and periods when grazing was dominant. Linear 'ladder-type' field patterns and the sites of isolated farmsteads reflect the stages of enclosure; the farmsteads are often located at the intersection of reclamation periods and are on higher, more stable land. Faden's Map (1797) shows that the majority of the marsh was common land, used as grazing for cattle, sheep and horses and to supply sedge and reed for building and for animal bedding, as well as habitat for fish, eels and wild birds. The Domesday Book records salt pans on the marshes within this area - saltwater flowing in tidal creeks was diverted into special basins where it evaporated. There is also evidence of medieval fisheries and water mills.

Integrated landscape character (continued)

Strong contrasts in land use pattern reflect this long history of intervention. In areas protected by a sea wall, the Drained Coastal Marshes has a simple repetitive pattern with large geometric arable fields bordered by grassed banks, drainage ditches and low gappy hedges. But a smaller scale pattern of more textured and irregularly-shaped pastures predominates on the inland fringes of the drained farmland, alongside watercourses and in the vicinity of the wetland nature reserve near Cley. The rush-lined drainage ditches which criss-cross the larger arable fields form an inter-connected network of valuable wetland habitats. There are also strong contrasts in tree cover. The vast areas of open arable land in the North Wootton area are interrupted only by occasional shelterbelts, but woodlands are more a feature of the Drained Coastal Marshes near Holkham and Wells, with some conifer and mixed plantations on the dunes near Holkham. These woodlands are ecologically valuable and contain fragments of heathland.

Overall, this is an open landscape. Woodlands are concentrated towards the inland boundary of the landscape type and there are typically long views from the more elevated landscapes inland. Beyond the woodland fringe, the skyline is uninterrupted by vertical elements. The panoramic views are defined by wide skies with a simple horizon and the apparent lack of subdivision in the landscape exaggerates the overriding sense of expanse. The vast majority of the area is a remote, peaceful landscape, but there are pockets of intense activity – at the beach areas near Holkham, Wells and Cley.

Landscape sensitivity and change

The open, expansive character of this landscape and the potential for long views from the adjacent, more elevated inland landscape types ensures that any interventions are likely to be prominent, particularly if the change involves interruption to the skyline and the dominant horizontal plane. However, the strong contrasts in landscape character mean that there are also strong contrasts in landscape sensitivity:

- The 'engineered' open arable land near North Wootton is a man-made landscape, with a long history of change, so ongoing interventions could be seen as part of the continued evolution of its character.
- The beaches, farmland and marshes of the Drained Coastal Marshes in the Holkham and Cley areas are highly sensitive to change
 which could disrupt the high ecological value of local habitats and views across the vast expanse of open coastline that so many visitors come
 to enjoy.







Landscape sensitivity and change (continued)

Key environmental assets which are particularly sensitive to change are listed below.

- The simple, open, expansive character of the landscape and its remote, peaceful nature.
- the network of boundary drainage ditches which are of ecological value and which also record historic sequences of reclamation, the **mosaic** of wetland habitats (many of which are priority BAP habitats). For instance coastal sand dune, coastal and floodplain grazing marsh, saline lagoons and reedbeds are exceptionally sensitive and vulnerable to change. They encourage breeding waders, overwintering wildfowl and aquatic plants.
- The balance of freshwater to saline marshland habitats, which is in flux and is sensitive to changes in water level (eg due to groundwater abstraction and or coastal realignment).
- The naturally evolving sand dune systems, whih contain a great diversity of plant species and important transitions from pioneer to mature, established dune environments.
- The Cley Weybourne shingle ridge, which supports a range of rare plant species and is of great physiographic interest. The ridge (part of the Blakeney Point spit) is valued as a site of extensive scientific research on the formation of coastal shingle spits and saltmarsh.

Variations in character

Variations in character and inherent landscape sensitivities are highlighted in the following distinctive landscape character areas within the Drained Coastal Marshes (AONB area):

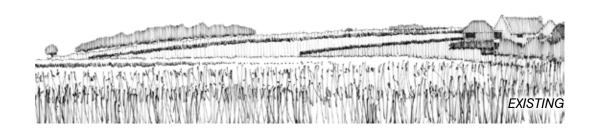
Landscape character area	Distinctive character	Inherent sensitivity
North Wootton - DCM1	A flat, open engineered landscape delineated by extensive sea walls, which date from the 17th century. The Babingley River meanders across DCM1 to the north of Castle Rising, but is diverted along the sea wall to the Lynn channel within an engineered channel. Simple, repetitive landscape pattern dominated by large arable fields bordered by straight drainage ditches. There are few trees and only gappy hedgerows, but some dispersed shelterbelts which offer little overall sense of enclosure. The wooded slopes of the adjacent Wooded Slopes with Estate Land provide a wooded skyline and backdrop to the east. Small areas of roughly grazed pastures with fragmented hedgerows are locally distinctive and are of ecological value in an otherwise man-made landscape. The sea defence walls along the entire (seaward) western border are a distinctive feature in the landscape. They often form a prominent line on parts of the skyline and prevent local views to the sea. This is a flat, open landscape with vast skies and complete lack of built structures & vertical elements.	 Open views across simple, expansive arable landscape Few vertical elements Predominantly isolated & rural character Local areas of smaller-scale wetland and rough pasture (valuable in ecological and landscape terms) eg along the Babingley River Areas with a distinctive 'ladder-pattern' of field boundaries are of value as a record of local landscape history The rush-lined drainage ditches which criss-cross the arable fields form an interconnected network of valuable wetland habitats Scheduled monuments and settings at Castle Rising and medieval settlement of Babingley

Landscape character area	Distinctive character	Inherent sensitivity
	There are no settlements, with only occasional isolated farmsteads accessed by long unmade roads. Some urban fringe influences (paddocks, gardenboundaries and views to a residential skyline) to the south – towards North Wootton & North Lynn.	
Old Hunstanton to Holme (DCM 2)	Flat area of rough grassland and dune vegetation bordered to the north by a series of gently undulating sand dunes. To the north A golf course behind the dunes and 'ribbon' development and a caravan park along Beach Road and Broadwater Road dominates the character of the area and introduces a manicured more developed character than other areas of Drained Coastal Marshes	Patchwork of saltmarsh, scrub & grassland along landward side of the beach provides key ecological habitat
Holme to Thornham (DCM 3)	A former area of intertidal creeks that has Series of fields inland have been reclaimed to form wetland habitats with some drained arable fields & pastures on the fringes. Enclosed by dunes to the north, with some planted pines, and a sea bank to the east. Remnant sinuous features e.g Broadwater are supplemented subdivided by a network of straight ditches & creeks. The only building is Broadwater House, now the NWT visitor centre. The fields are fringed by sand dunes, saltmarsh and mudflats, from which there are long views across Brancaster Bay. The Peddar's Way & The Norfolk Coastal Paths follows the coast.	 Strong sense of openness, with open panoramic views in all directions from the Norfolk Coast Path Isolated, rural character Important wetland habitats for breeding and wintering birds

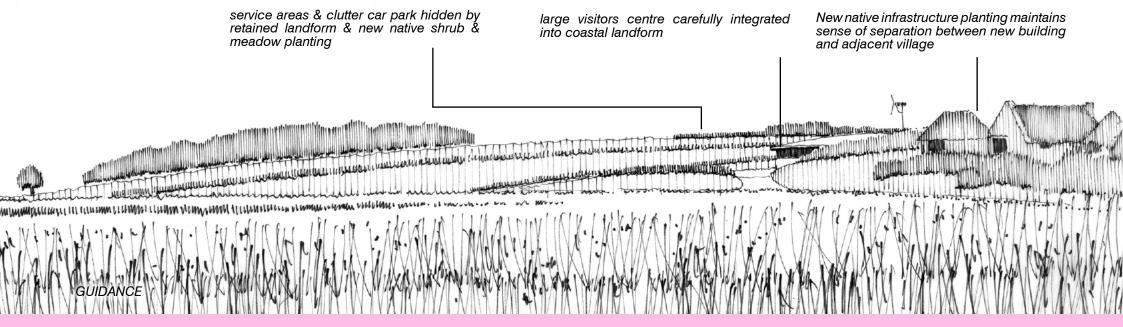
Landscape character area	Distinctive character	Inherent sensitivity
Thornham and Titchwell (DCM 4)	Two relatively small areas reclaimed from the intertidal marshes, protected by sea banks, which provide extensive views of the surrounding marshes and inland ridge from the banks. The western section is part of the RSPB Titchwell Marshes reserve, organised as lagoons and wetland habitats including extensive reedbeds, with a number of hides. The eastern section has a more natural appearance in general with a lagoon, seasonal wet areas and grazing marsh. The Golf Club House and practice ground in the northern part of this area, the former is a prominent landmark.	 Long, uncluttered views along the coast from sea banks Important wetland habitats for breeding and wintering birds
Overy Creek (DCM5)	Mainly wet pasture with remnant creek features to the east, arable farmland to the west. Sense of enclosure from the long, curving sea bank on three sides and the backdrop of the rising Coastal Slopes to the south. Open panoramic views from the sea bank. Includes the wetland habitats of the valley of the River Burn to Burnham Overy. Tracts of Overy and Norton Marshes have been reclaimed to form drained land used for grazing cattle and Overy Marshes are protected from the sea by vegetated sand dunes. The coastal marshes are sparsely populated with only occasional farm buildings.	 Long-distance, panoramic views over the undeveloped salt marshes towards the sea, and inland over the reclaimed marshes, from the sea bank Relatively remote and tranquil & wild

Landscape character area	Distinctive character	Inherent sensitivity
Holkham (DCM6)	The Holkham Drained Coasta Marshes lie behind a line of dunes known as the 'Holkham Meals'. The dune crests reach a height of 16m and, with prevailing winds from the north, sand is blown off the beach surfaces very soon after they are exposed. The dunes may have originated as an offshore bar of shingle that became stabilised by dune building. The extensive belt of pine woodland (planted during the mid 19th century) on the western part of the inner dune system is a distinctive and unusual local landscape feature. Documentary evidence suggests that a channel flowedthroughHolkhamGapbeforethesaltmarshes were drained and reclaimed. The marshes are protected by the dunes to the north and sea banks to the west and east. There are partly arable and partly flooded areas of grazing marshes, with an old railway embankment and sea defence banks in the eastern part of the area. The Pinewoods caravan park and car park are relatively well screened. The beach huts at Wells beach and the avenue of poplars and car parking at Lady Anne's Drive are local but highly influential landscape elements. Development along the A149 Coast Road in the adjacent landscape type is prominent.	 Long open views and a simple landscape structure which is sensitive to the visual impact of parked cars, litter and equipment associated with the large numbrs of visitors who frequent the area year round Distinctive dune system, which is a fragile habitat sensitive to erosion by people trampling and recreational pressures Distinctive pine woodland, which is locally an important landscape feature and which screens the caravan park and its associated buildings Important wetland habitats for breeding and wintering birds Iron Age fort and setting on Holkham marshes
Cley/Salthouse (DCM7)	The drained coastal marshes at Cley and Salthouse have been claimed from saltmarshes behind part of the shingle ridge which extends from Blakeney point to Kelling Hard. The size of the shingle increases from Blakeney to Kelling Hard. This is a relatively simple landscape structure, strongly influenced by adjacent landscape types. Freshwater wetlands, small pastures, reed fringed ditches and open water scrapes in the nature reserve. Area is overlooked but has fairly limited public access	 Long-distance, panoramic views inland to the settlements of Cley and Salthouse against the backdrop of the Walsey Hills Shingle ridge forms backdrop and shelter to north, blocking views to the sea Wetlands - pools, ditches and wet pasture provide a valuable complex of wetland habitats Remote, tranquil & wild Nesting ringed plovers on shingle bank vulnerable to disturbance

Key forces for change



- New small-scale development, which may impact upon the characteristic sense of remoteness, openness and exposure.
- Potential flood risk from the dynamic and ever-changing nature of the adjacent coastline changes to the sea walls, sea banks and the shingle bank at Cley as a result of flood protection or natural forces, will alter the length and nature of sea views.
- Changes in cropping and or water management regimes, which would alter the 'texture' and habitat value of the landscape scope for positive and negative change.
- Potential eutrophication of rivers and dykes as a result of run-off from adjacent agricultural farmland.



10

Key forces for change (continued)

- Loss of hedgerow field boundaries and drainage ditches as a result of agricultural intensification.
- Potential loss of grazing marsh, but increase in inter-tidal habitats as a result of changing levels of coastal defence, in combination with managed realignment schemes.
- Extension of urban/ urban fringe character around the fringes of the area and on immediately adjacent landscape types which could have a visual impact on landscape character, particularly in areas where the settlement is on elevated land overlooking the Drained Coastal Marshes.
- Extension of 'urban fringe' character (such as lighting, pony paddocks and domestic garden fences and hedges) into this landscape at settlement edges.
- Off-shore wind farms, which could have a negative impact on the remote, wild qualities of the Drained Coastal Marshes.

20 year vision

managed change

An expansive, transitional coastal landscape, which is undergoing a gradual long-term transition from farmland to inter-tidal environment. Key features of geomorphological and habitat value are conserved within an increasingly natural, shifting mosaic of marsh and wetland habitats fringed by pasture. Flocks of redshank and curlew, swirling from one wetland to the next, will be part of a dynamic panorama enjoyed by visitors who come to experience views across a natural wilderness.



Integrated landscape guidance

- Work in partnership to develop a strong vision for the future coastline management which accepts managed transitions in character and habitat. Within the mosaic of habitats, key features of geomorphological and habitat value are:
 - coastal vegetated shingle beaches along the North Norfolk Coast and lining The Wash (both core habitat areas 1);
 - · dune systems along the coast as habitats for a rich diversity of flora and salt-tolerant species; and
 - areas of natural brackish lagoons (for example at Holme), and artificial lagoons (for example, at Titchwell), as valuable habitats for invertebrate fauna and feeding sites for wintering and passage waders and waterfowl.

The location and scale of these components may change, but they should be key features within the Drained Coastal Marshes landscapes.

- 2 Encourage and support an increase in the proportion of wetland habitat with conversion from arable farmland to pasture, grazing marsh and wetland so that the Drained Coastal Marshes gradually becomes a more natural, shifting mosaic of habitats
- 3 Create and enhance the range of habitats associated with farmland areas, linking habitats and making connections between coastal habitats and habitats on the inland fringes of the Drained Coastal Marshes so that habitats connect to woodlands and semi-natural habitats on the adjacent slopes.
 - Protect, enhance and where possible expand, habitats of purple moor grass, rush pastures and lowland meadow habitats.
 - Retain small transitional areas of heathland and grassland where these emerge from the marsh and buffer agricultural land.
 - Conserve and enhance scattered, mixed shelterbelts, which delineate fields, as corridors of ecological value.
 - Conserve the courses of drainage ditches, and minor watercourses (which are lined in places with grassy banks, reeds and reedmace) as key landscape features and wildlife corridors.
 - Seek strategies to minimise the risk of eutrophication of rivers and dykes as a result of run-off from adjacent agricultural farmland.
 - Conserve the distinctive small-scale field pastures, bounded by water-filled ditches.
- 4 Conserve the relatively strong sense of remoteness and tranquillity
 - Any further development associated with 'pockets' of concentrated visitor activity requires exceptionally careful design to ensure that it is unobtrusive and does not detract from the expansive, remote coastal character that people have come to enjoy.

Norfolk Wildlife Trust on behalf of the Norfolk Biodiversity Partnership, July 2006, Ecological Network Mapping Project for Norfolk

Integrated landscape guidance (continued)

- Avoid lighting associated with roads, security and buildings as this has a severe negative effect on the sense of remoteness; lights can be seen from many miles along the coast.
- Conserve the open, rural character of local roads, which are often bordered by ditches with reed fringes; avoid clutter of signs and reinstate small-scale roadside hedgerows, ditches and verges following minor changes to road alignment.
- Avoid small scale, bitty interventions, which would be totally out of place in this simple, large-scale landscape.

5 Conserve panoramic and open views across the area and beyond to adjacent landscape character types

• Identify and enhance the setting for key views across the Drained Coastal Marshes from roads and rights of way on elevated adjacent landscape types.

6 Conserve the generally scattered and isolated settlement pattern throughout the area

Avoid new built development generally. In particular:

- · avoid new vertical structures which affect or impinge on open skyline views; and
- consider carefully designed planting as part of settlement edge schemes in locations which border and form a visual backdrop to the Drained Coastal Marshes

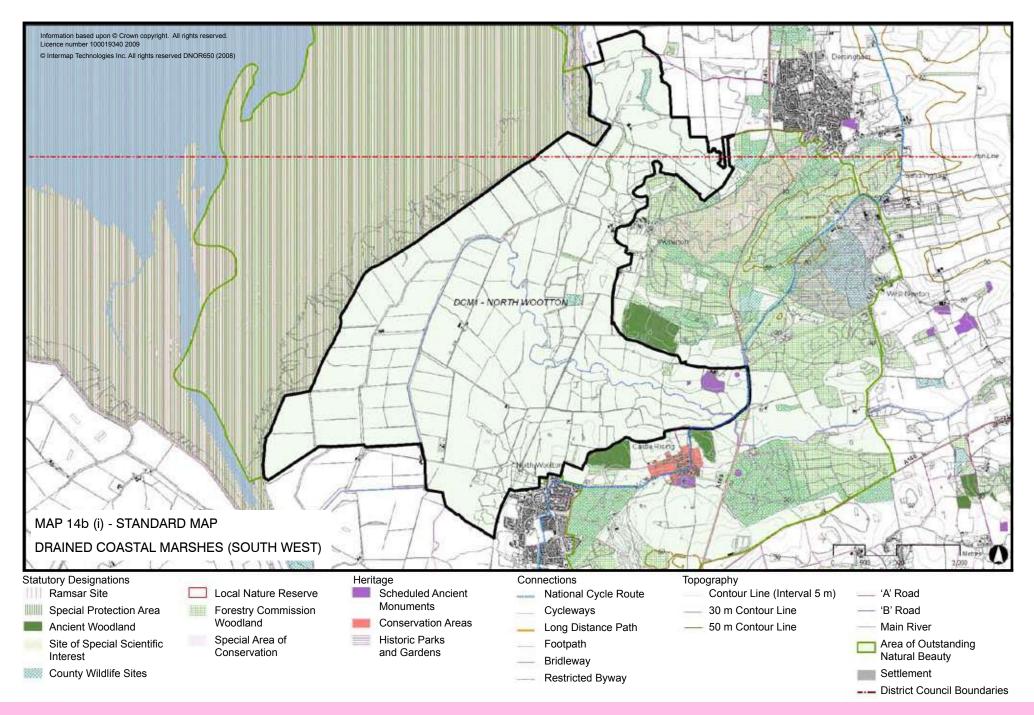
Detailed maps

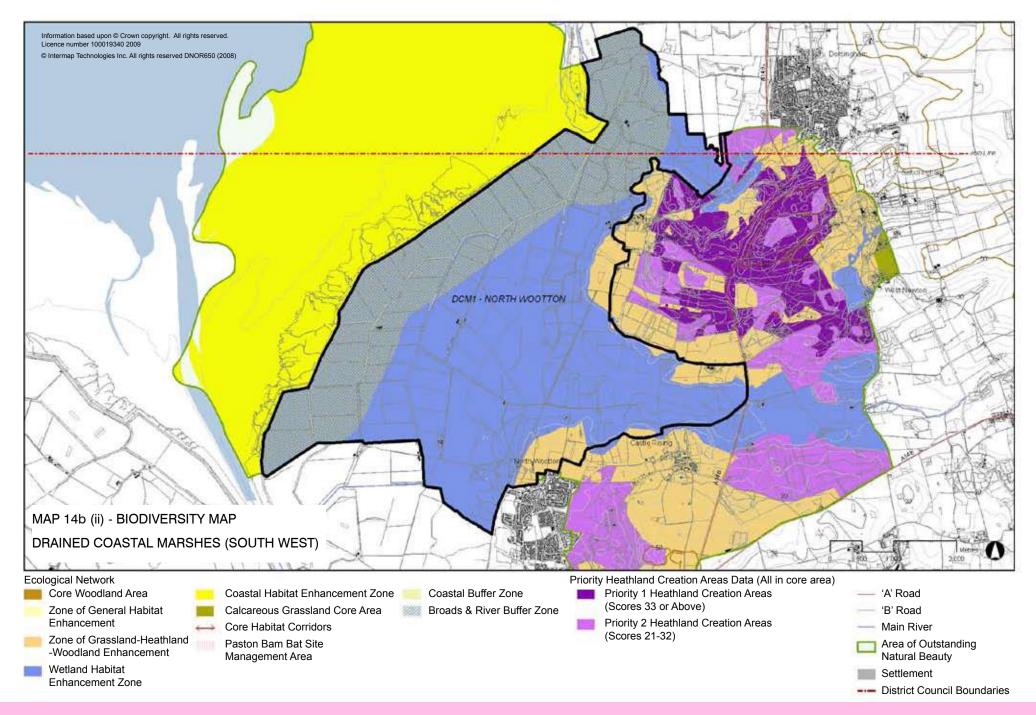
- Standard landform, drainage, rights of way and statutory designations
- Biodiversity ecological networks²
- Historic landscapes broad historic landscape character types 3 and data from the Historic Environment Record 4

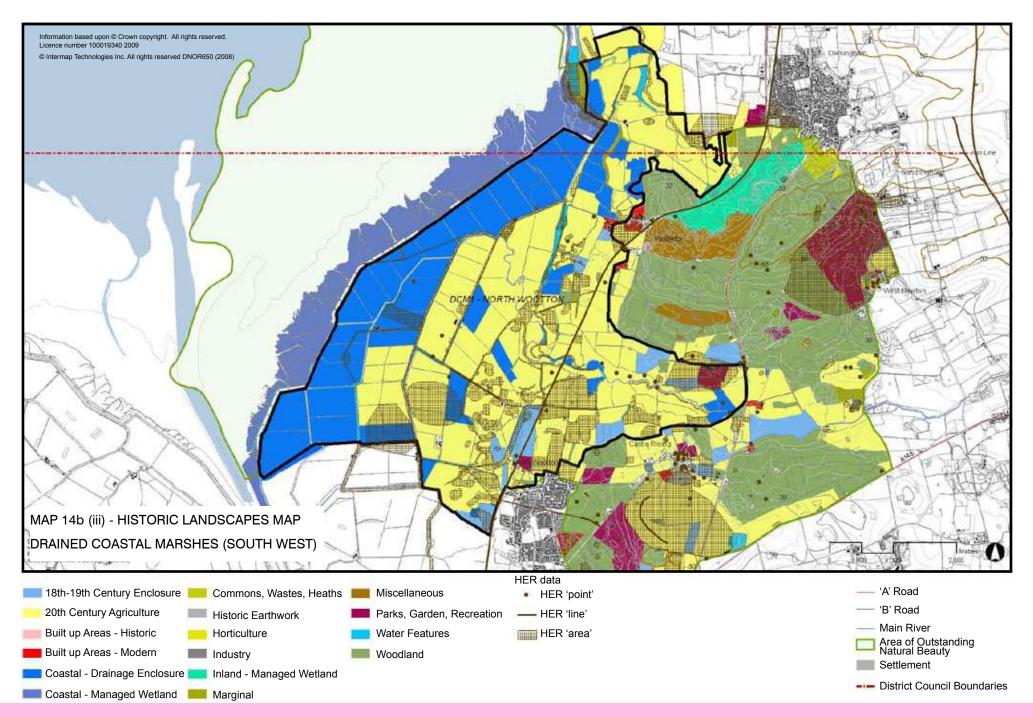
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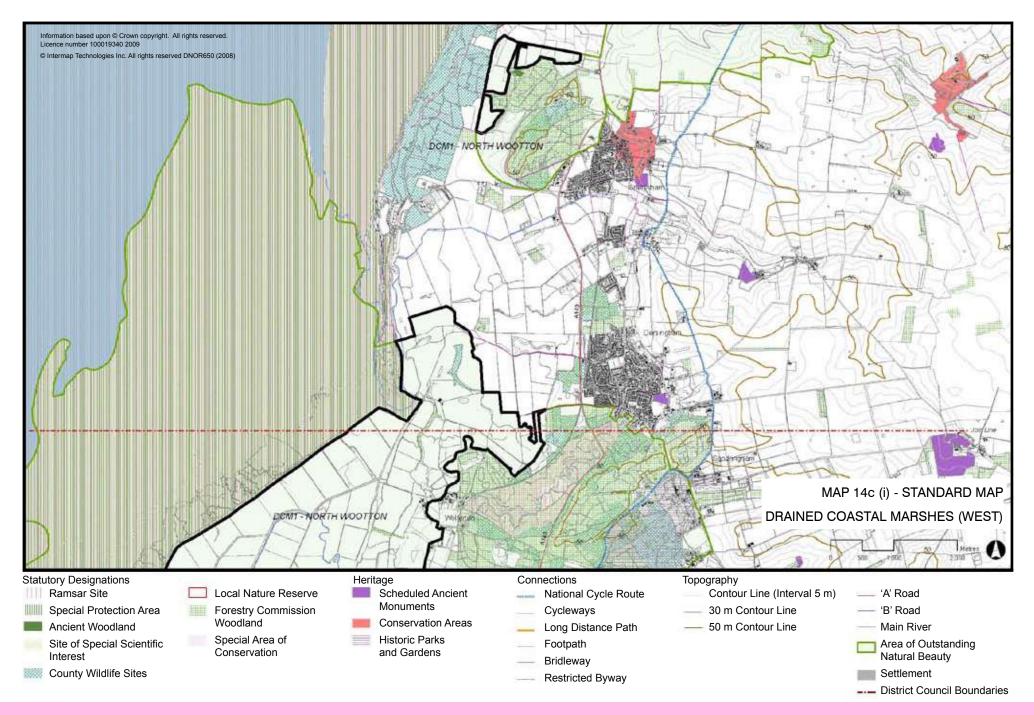
Norfolk Landscape Archaeology, January 2009, Norfolk Historic Landscape Character - a report on the Norfolk Landscape Characterisation (HLC) Project

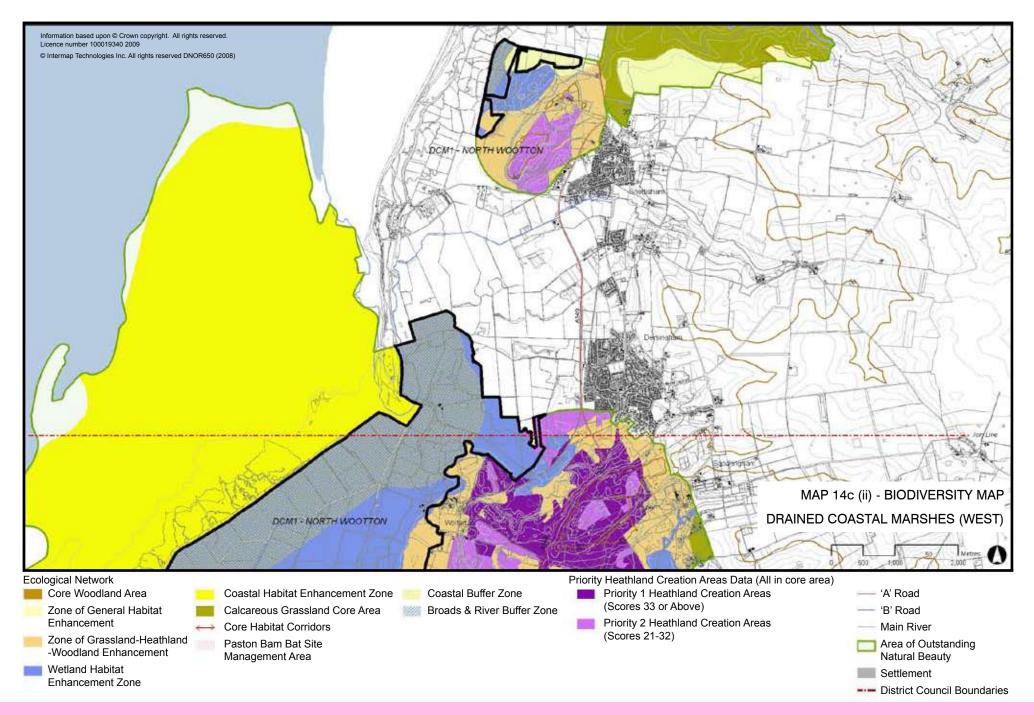
www.heritage.norfolk.gov.uk - provides a computerised, searchable database (with integrated digital mapping) of all areas of known archaeological activity, sites, finds, cropmarks, earthworks, industrial remains, structures and historic buildings in the county

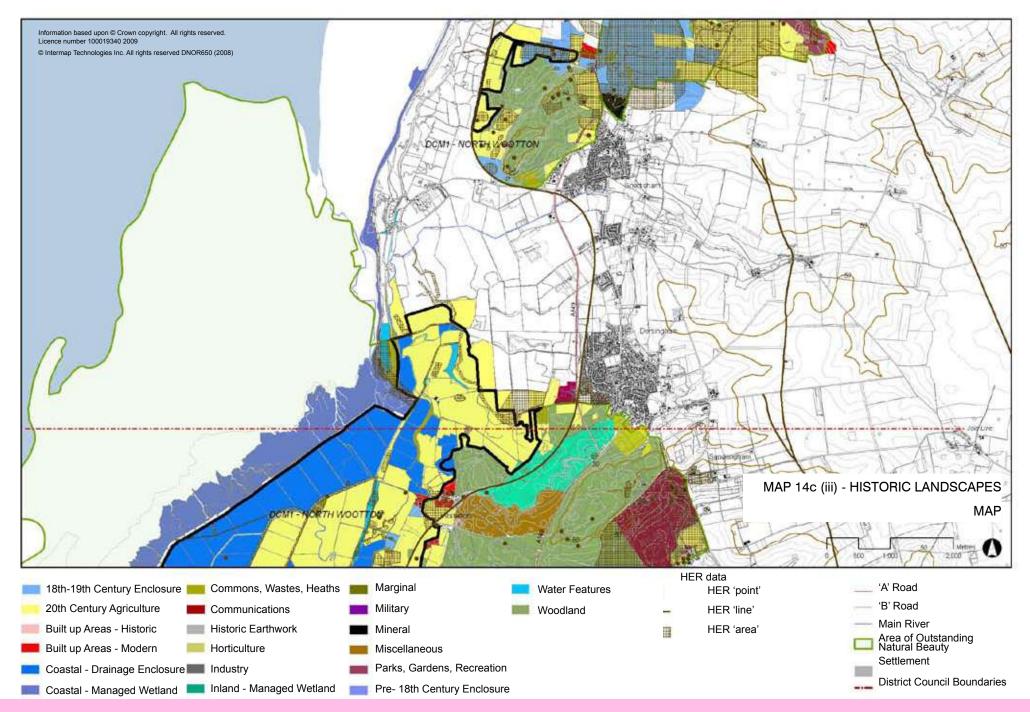


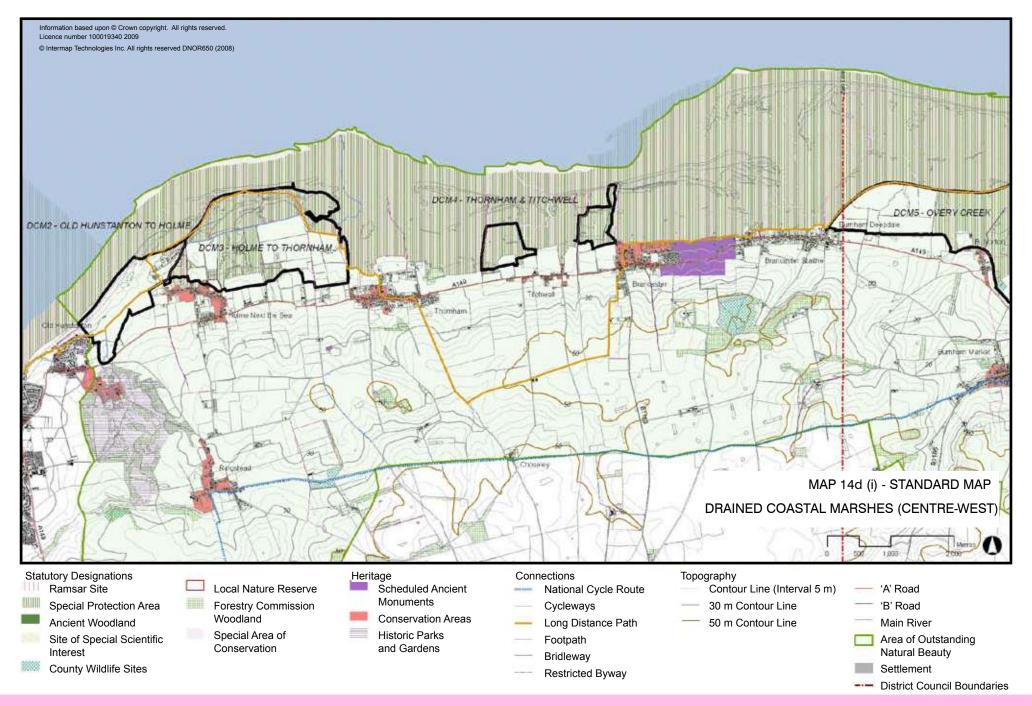




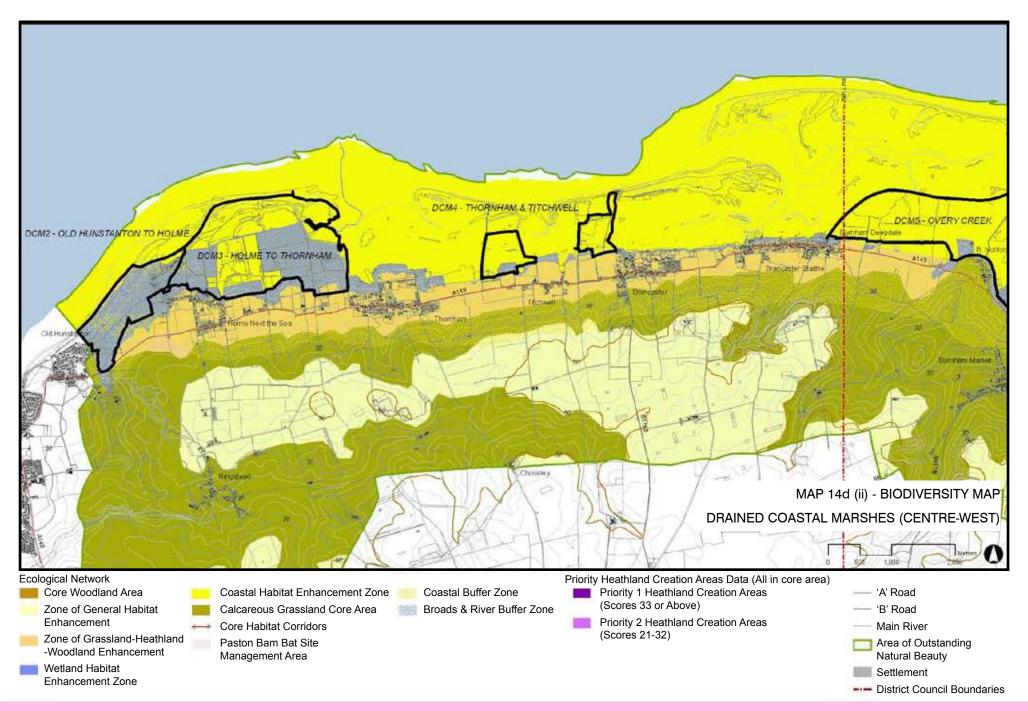


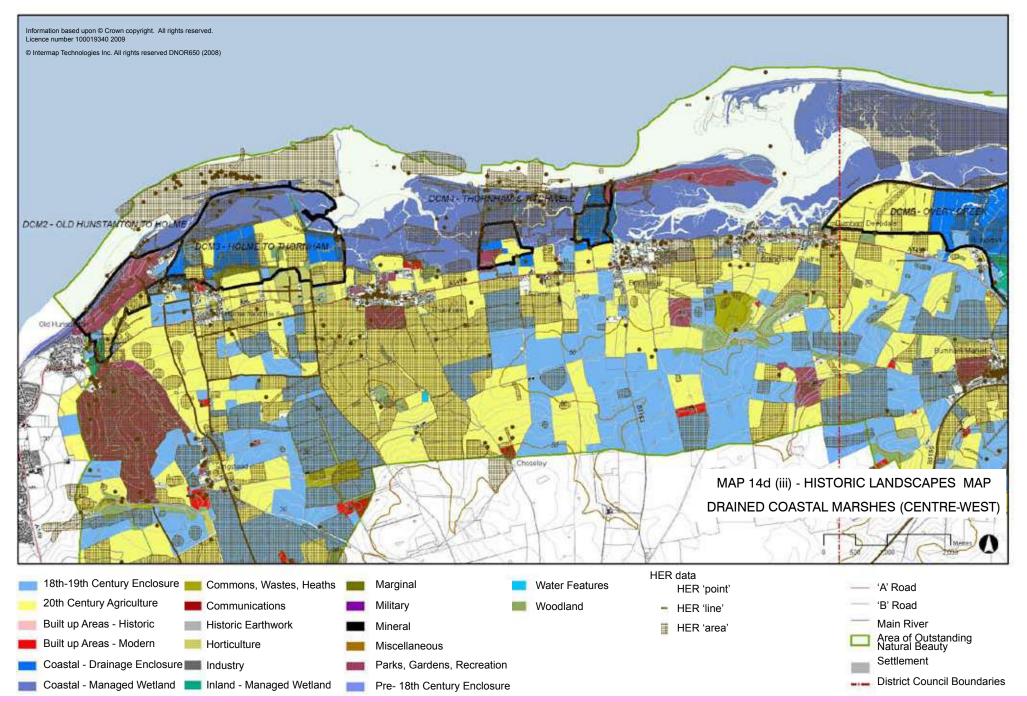




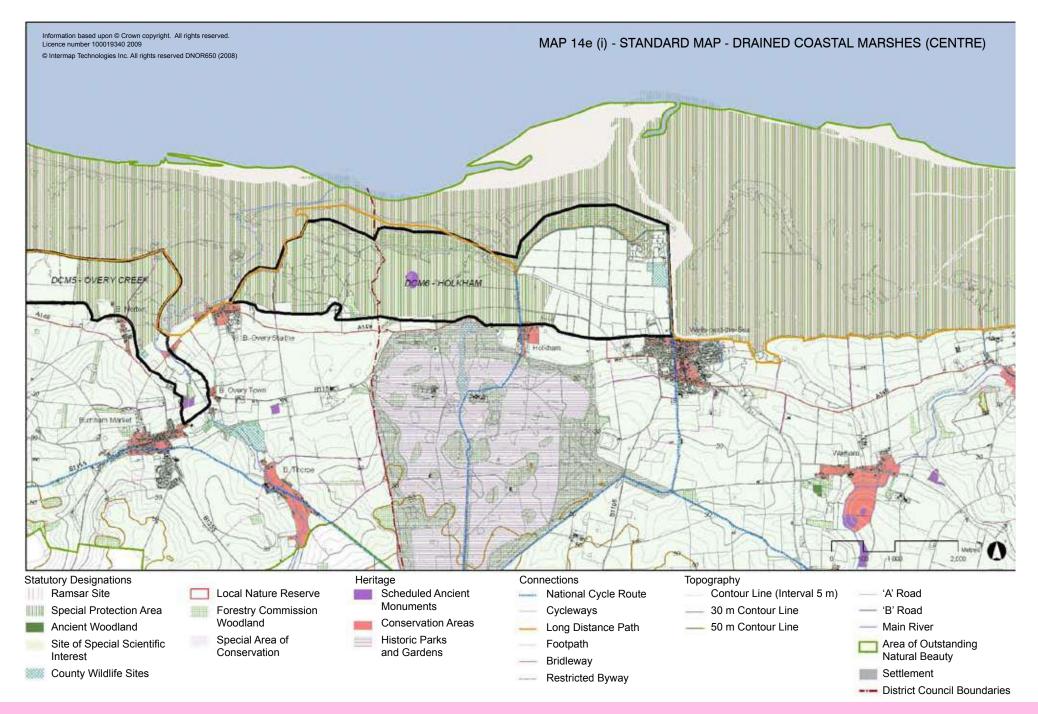


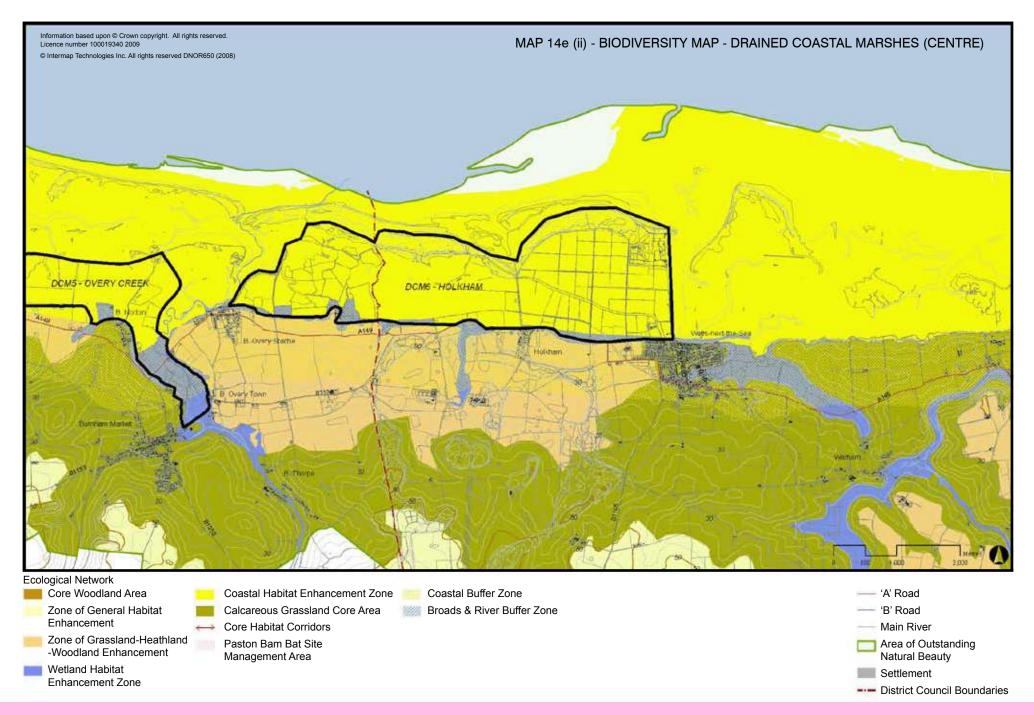
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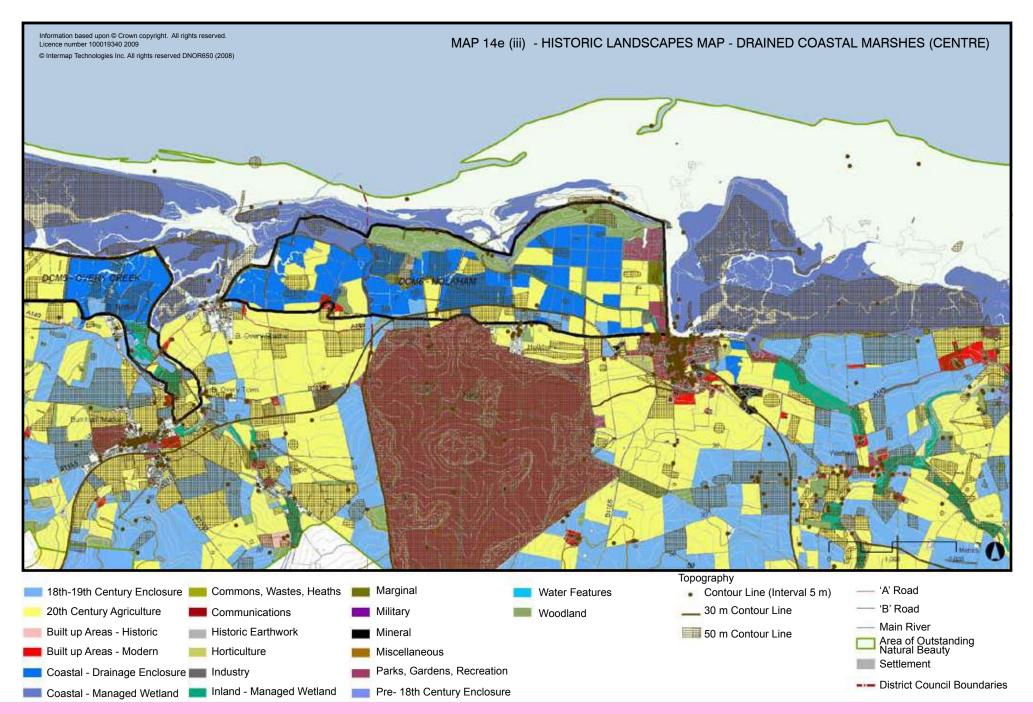




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