Land Use and Agriculture

Within the marshland landscapes of the Borough, modern land use patterns have been derived from past activities that in turn have been influenced by the historic rise and fall of sea levels. The quality of agricultural land, known as Agricultural Land Classification, developed by the Ministry of Agriculture, Fisheries and Food (MAFF) (Now overseen by Department of Environment, Food Rural Affairs/Natural England) and is illustrated on Figure 6. Productive loams occurring on the marsh alluvium have encouraged the conversion of extensive areas of former unimproved wet grazing pasture to intensive arable cropping of wheat and barley within the sea walls, although this is now a declining trend. Tracts of traditional, unimproved, wet grassland remain, sheep and cattle mostly graze the grassland although, around the fringes of some urban areas in particular, the grazing of horses is prevalent. The risk of periodic flooding has led to the construction of miles of sea wall defences. These are a vast and looming presence over the agricultural land behind. The mixture of saltings, mudflats, sand and shingle beaches beyond the sea walls is an important habitat for a wide range of waterfowl. Virtually no trees or hedges grow on the exposed marsh except for a few isolated specimens on higher ground and some very localised scrub encroachment along road verges, railway embankments and some sea walls.

The marshland areas themselves are characterised by a lack of major settlements. Farmsteads and villages are located on higher ground within and on the edge of the marshes, whilst the large towns, industry, housing, caravan sites, transport routes and other structures now occupy what are often highly visible sites around the edges.

Historic widespread fragmentation and loss of marshland has largely ended, although threats from development at its fringes remain. Pressures for change have resulted mainly from changes in the agricultural economy and, in the longer term, from global warming and sea-level rise. In some locations pressures to adopt strategies of abandonment of sea-defences may lead to controlled sea inundation. Tourism and formal recreation related uses of the Estuary such as boating, water and jet skiing, new marinas and increasing visitor pressure have acted to influence the general feeling of remoteness and wilderness. Significant pressures on the landscape have resulted from new roads and the development of industrial complexes and their ancillary structures. The Thames Gateway and associated developments including transport are likely to further increase these pressures in the future. Such developments are particularly visible within the flat landscape of the Estuary.

Within the fruit belt, mixed farmland and arable landscapes of the Borough the features of the present agricultural landscape probably began to be developed as the light soils were cleared during the Neolithic period and Roman times. The area is one of the most productive agricultural areas in Kent due to the fine loam soils and favourable climatic conditions and a high proportion of arable land with very little stock rearing dominates the agricultural character of the area. Large and exposed intensively cropped fields are common while hedgerows and individual trees are generally limited with few areas of unimproved pasture. The regular patterns and rectangular shapes of the fields are defined by the various crop types rather than by hedgerows. Limited poplar and alder shelterbelts are associated with small settlements and farmsteads and are also found around orchards of soft fruits and other horticultural crops. A few small woodland blocks add variety to the horticultural landscape. Significant woodland cover with outstanding nature conservation interest is confined to pockets of higher ground around at Newington and, more significantly, at Blean where heavy acidic London Clay soils support one of the largest continuous woodlands in England. The more common species such as sweet chestnut, sessile oak, hornbeam and beech cover are found amongst the enclosed pasture and arable fields.

A dispersed settlement pattern with surrounding fields defined by a dense network of narrow lanes is typical. Roman influence on the landscape and settlement is evident in the present A2 Watling Street. Settlement growth and urbanisation have been primary influences, which have markedly changed the local landscape character. The development of settlements in the A2 corridor has all impinged on the character of the area. Locally distinct materials such as red and yellow brick, timber and reed have left their distinctive and characteristic mark on towns and villages.

Change has and continues to occur, albeit at a much-reduced rate, to woodlands, hedges and hedgerow trees as a result of agricultural intensification. Although historically there has been a dramatic decline in traditional orchards and hop gardens, there is evidence of the re – introduction of top fruit production and hop gardens, to the east and central parts of the borough. New crops and features are also appearing with maize and soft fruit, grown under a sea of polythene or poly tunnels, now appearing across the landscape. Pressures on the wider countryside also arise from increasing urban sprawl, especially for the dip slope and dry valleys within Thames Gateway. As a major communications corridor, with future increases in traffic, there will be pressures for new road schemes and improvements that have the potential for widespread visual intrusion.

Within the dry valley and North Downs landscapes, land cover is relatively homogenous being largely influenced by soil derived from the extensive occurrence of chalk and clay-with-flint. Parts of the area are more wooded than others with the valleys tending to be more wooded than the open plateaus between them. Oak and ash are typical of the upper part of the dip-slope while a mix of beech, ash and maple are commonly found on the chalk soils of the dry valley sides. Although there are pockets of species-rich unimproved chalk grassland, there are also large areas of the chalk grassland on the scarp and valley sides that have been ploughed for arable use.

This is generally a rural landscape marked by a scattering of small villages, often within the valleys and/or on the routes of former droving tracks. The enclosed lanes are narrow, twisting and steep-sided. Overhung with yew, wayfaring tree and whitebeam, they offer only restricted views. Buildings of local materials are a significant feature in the landscape with the use of flint, from the chalk, as a building material providing a link between the physical and cultural landscapes.

Pressures for change in the area come from the expansion of urban areas, new roads, fragmentation of holdings, vandalism and fly tipping. Within woodland the removal and lack of active management of trees and woodlands is a problem. Traffic congestion on rural roads and on routes between the M20 and A2 is likely to increase eroding rural amenity.

Biodiversity

Natural Areas

Swale Borough is rich in biodiversity. Three Natural Areas defined by English Nature (now Natural England) - the Greater Thames Estuary, the North Kent Plain and the North Downs - span the Borough (Figure 7). These areas are identified by their physical, natural and land use features. The boundaries of the Natural Areas are identical to those of Natural England's National Character Areas (previously known as Joint Character Areas), except that the latter do not include the intertidal zone.

- **Greater Thames Estuary:** Most of the land of Swale Borough is within the Greater Thames Estuary Natural Area. Agriculture is dominant in this area as the former freshwater grazing marsh has mostly been drained and converted to arable farmland. Soft sediments, forming extensive salt-marshes and mudflats, dominate the intertidal zone. These are separated along most of its length by man-made sea defences from the low-lying land on alluvial soils. These areas were formerly subject to more frequent flooding, but are now mainly arable land, with grassland. However some substantial areas of grazing marsh remain.
- **North Kent Plain:** This land, derived from the Tertiary deposits, includes some of the most fertile and productive farmland in southeast England. It also includes large areas of woodland (such as the Blean complex) and marshland of outstanding conservation interest. The predominant land uses of the North Kent Plain are intensive arable farming and horticulture including many orchards, but on heavier clay soils there are woodlands and grasslands, while in river valleys, especially in the east, there are extensive wetlands.
- **North Downs:** The North Downs is a land of chalk soils overlain by deposits of clay on higher ground, with a relatively warm and dry climate. The landscape has been traditionally fashioned by its land use to produce an area of outstanding nature conservation interest. Although now limited in extent, chalk grassland is a distinctive feature of downland, along with scrub and woodland.

Designated Sites

A significant proportion of Swale Borough is covered by at least one form of biodiversity designation. Such designations exist at the International, National and Local (County) level, and include:

- **European Sites –** a collective term for sites designated under the Conservation (Natural Habitats &c) Regulations 1994 such as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Often wetland sites designated under the international Ramsar Convention are also included with these in practice. These international sites are almost always covered by the SSSI designation as well (see below).
- **Sites of Special Scientific Interest (SSSIs) –** A statutory UK designation under the Wildlife & Countryside Act 1981. Designated by Natural England, these represent the very best wildlife sites in the country.
- **National Nature Reserves (NNRs) -** are almost always SSSIs thus receiving statutory protection, but are also either owned or controlled specifically for wildlife conservation by Natural England or held by approved bodies such as Wildlife Trusts.
- **Local Wildlife Sites (LWSs) –** a non-statutory County designation, administered in Kent by the Kent Wildlife Trust and ratified by the Kent BAP Partnership. Central Government's 'New Performance Framework for Local Authorities' (2007) contains a number of National Indicators (NIs) by which local authorities' performance is measured. NI 197 (Improved Local Biodiversity) is based on the proportion of Local Wildlife Sites where positive conservation management has been or is being implemented. In addition to LWSs the Kent Wildlife Trust has also identified Roadside Nature Reserves which recognize the important linkages provided by species-rich road verges.
- **Local Nature Reseves (LNRs) -** are designated by local authorities for both people and wildlife. They are semi-natural places that are of special interest locally and can be managed as such. They offer people opportunities for nature study or informal enjoyment. They may include sites that have one of the other designations listed above.

The locations, boundaries and details (including links to citations) for European Sites and SSSIs can be found at: www.natureonthemap.org.uk. LWS details can be obtained from the Kent Wildlife Trust. Such sites are afforded protection in the planning process, either through legislation (for statutory sites such as SSSIs and European Sites) or through planning policy (for local, non-statutory sites such as LWSs). Figure 8 illustrates the main biodiversity designations located throughout Swale Borough. Each relevant designated site is identified and described in the individual character area sections of this document, but a brief district-wide overview is provided as follows. NNRs and LNRs are generally not included in the analysis and discussion as those Reserves that have high value for biodiversity are already covered by the other designations.

One of the major areas of ecological importance within the Borough is the Swale and Medway. Reflecting their international importance for conservation, areas of the Swale and Medway have also been designated as a:

- Site of Special Scientific Interest (SSSI);
- Special Protection Area (SPA) (designated under the European Commission Directive on the Conservation of Wild Birds); and
- Ramsar Site, which means that it is a wetland of international importance.
- National Nature Reserves (NNR), (Elmley NNR and the Swale NNR).

The resulting mosaic of designated land includes some of the largest remaining areas of freshwater grazing marsh and estuarine habitats found on the north Kent coast.

The habitats comprise chiefly mudflats, salt-marsh and freshwater grazing marsh; the latter being intersected by extensive dykes and fleets. The area is particularly notable for the internationally important numbers of wintering and passage wildfowl and waders and there are also nationally important breeding populations of several bird species. Associated with the various constituent habitats of the area are outstanding assemblages of plants and invertebrates.

Other designated areas in the borough include a Special Area of Conservation (SAC) at Queen Down Warren in the south west of the Borough. It is also designated as a SSSI and is a fine example of unimproved calcareous grassland, particularly important for orchids. These grasslands typically occur on shallow soils with a high calcium carbonate content and often have an extremely rich flora with up to fifty species in every square metre.

Swale Borough also shares another SAC with Canterbury District: The Blean complex, which covers three SSSIs: East Blean Wood, Church Woods and West Blean and Thornden Woods, is situated on London clay and gravel drift deposits. These have given rise to a range of free to poorly drained moderately acidic soils. As a whole this area represents a mosaic of ancient semi-natural woodland with mixed coppice with oak standards, sweet chestnut coppice and conifer plantation. The diverse ground flora includes some species indicative of a long history of woodland cover and on the most acidic, gravelly soils, heather is present. The area is also noted for birds with over 50 species of breeding bird having been recorded and for its invertebrate interest including many nationally rare species such as the heath fritillary butterfly.

Other areas, mainly ancient woodland, remnant marshland and former industrial areas, have been designated as Local Wildlife Sites because of their local conservation interest.

In summary, biodiversity within the Borough is varied, ranging from large expanses of open mudflats, salt-marsh and freshwater grazing marsh to the north, some fragmented small woodlands and a loose network of hedgerows to the south, more substantial blocks of woods to the eastern end and small areas of chalk grassland to the south west. All these habitats support varied plant and animal communities including scarce and rare species. This is reflected by the large extent of designated land in the Borough, although the network of hedgerows, trees, old orchards and other habitats outside these areas significantly contribute to overall biodiversity. In contrast, there are also large areas of intensively managed arable land and orchard that are generally of low ecological interest.

BAP Habitats and Habitat Networks

The UK BAP identifies priority species and habitats that are most under threat and develops measures for their conservation. These measures are in addition and complimentary to the process of site designation and protection. The conservation of BAP habitats has a statutory basis under the Natural Environment and Rural Communities Act 2006 and is also enshrined in Government Planning Policy. Swale Borough is rich in BAP habitats, with some notably large expanses of habitat in areas such as the Blean (e.g. ancient woodland), the Swale, Medway and Thames Estuary complex (intertidal and grazing marsh), and the North Downs (ancient woodland and chalk grassland).

In addition to the UK BAP, **Local BAPs** also exist at County and District level. Both the Kent BAP (http://www.kentbap.org.uk/) and the Swale BAP (http://www.swale.gov.uk/biodiversity-action-plan) are informed by each other and the UK BAP, with the aim of providing a local focus for action.

Figure 9 provides a map of Swale Borough's habitats based on the Kent Habitat Survey (2003).

Many of Swale's BAP habitats are also surrounded by land that has the physical potential for the creation or restoration of such habitat. Currently, most of this will be under some form of intensive land use such as arable, horticulture or improved short-grazed pasture that has less value for wildlife and which may present barriers to certain species' dispersal. Most of these land uses are likely to continue into the foreseeable future. However, opportunities may arise in the future which allow some of this habitat potential to be realised through, for example, changes in farming practice and incentives, flood risk management or mitigation for built development. Development planning and other land use decisions should take account of this future opportunity if we are to create robust habitat networks that contribute to the wider region's networks. A principal aim of this study is to highlight such opportunity and identify those areas where it will have the most impact in terms of habitat connectivity.

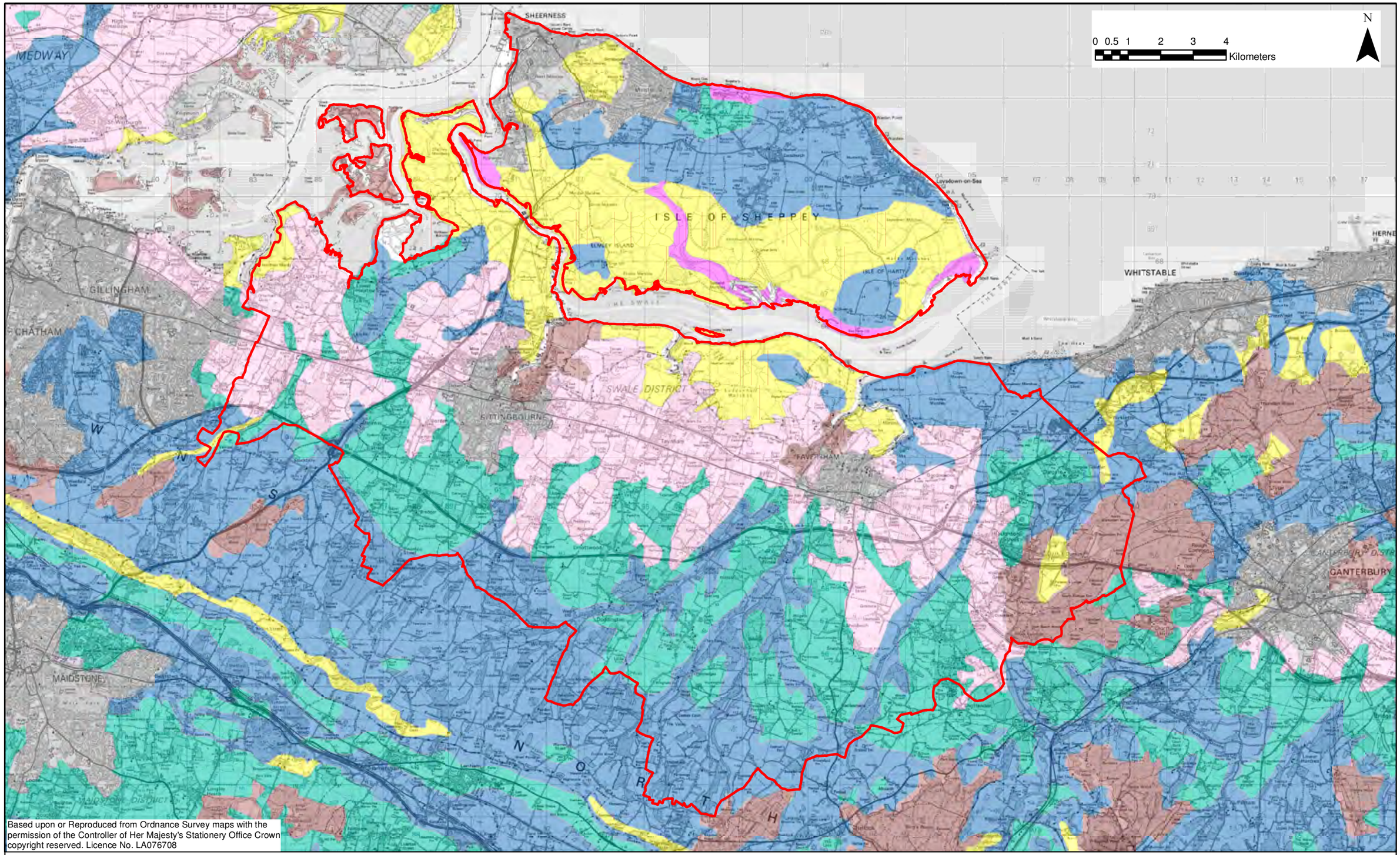
Figure 10 illustrates the BOAs in Swale Borough, which have been derived by the Kent Living Landscapes / BOA project. These include parts of four BOAs, namely The Blean, North Kent Marshes, Mid-Kent Downs Woods & Scarp and the Medway Gap & North Downs. Each of these BOAs has an accompanying BOA statement describing the key elements of the area and these are provided in Appendix C.

Landscape and Heritage

There are a number of landscape and heritage designations that cover Swale Borough (Figure 11). Most of the landscape south of the A2 forms part of the nationally designated Kent Downs Area of Outstanding Natural Beauty (AONB). The Kent Downs AONB Management Plan (First Revision April 2009) 2009 – 2014 should be used as a material consideration alongside the Swale Landscape Character Assessment.

Numerous Conservation Areas are scattered throughout the borough, designated for their special historic or architectural interest. Amongst others, these include parts of Newington, Faversham, Doddington, Newnham, Badlesmere, Sheldwich Lees and Selling. Scheduled Monuments are strewn across the borough, including a Romano – British Villa at Boxted to the west, a World War II radar station at Dunkirk to the east, a gunpowder works at Oare to the west of Faversham and several designated sites across the Isle of Sheppey.

Belmont Park, Lees Court and Doddington Place are on the national register of Historic Parks and Gardens. Belmont Park, Throwley, has been owned by successive generations of the Harris family since 1801. The large 18th century house is set within parkland and the wider Kent Downs, and the estate is open to the public. Doddington Place, south east of Sittingbourne, comprises a Victorian mansion and gardens which are open to the public. Lees Court, south west of Faversham, is privately owned.



Legend

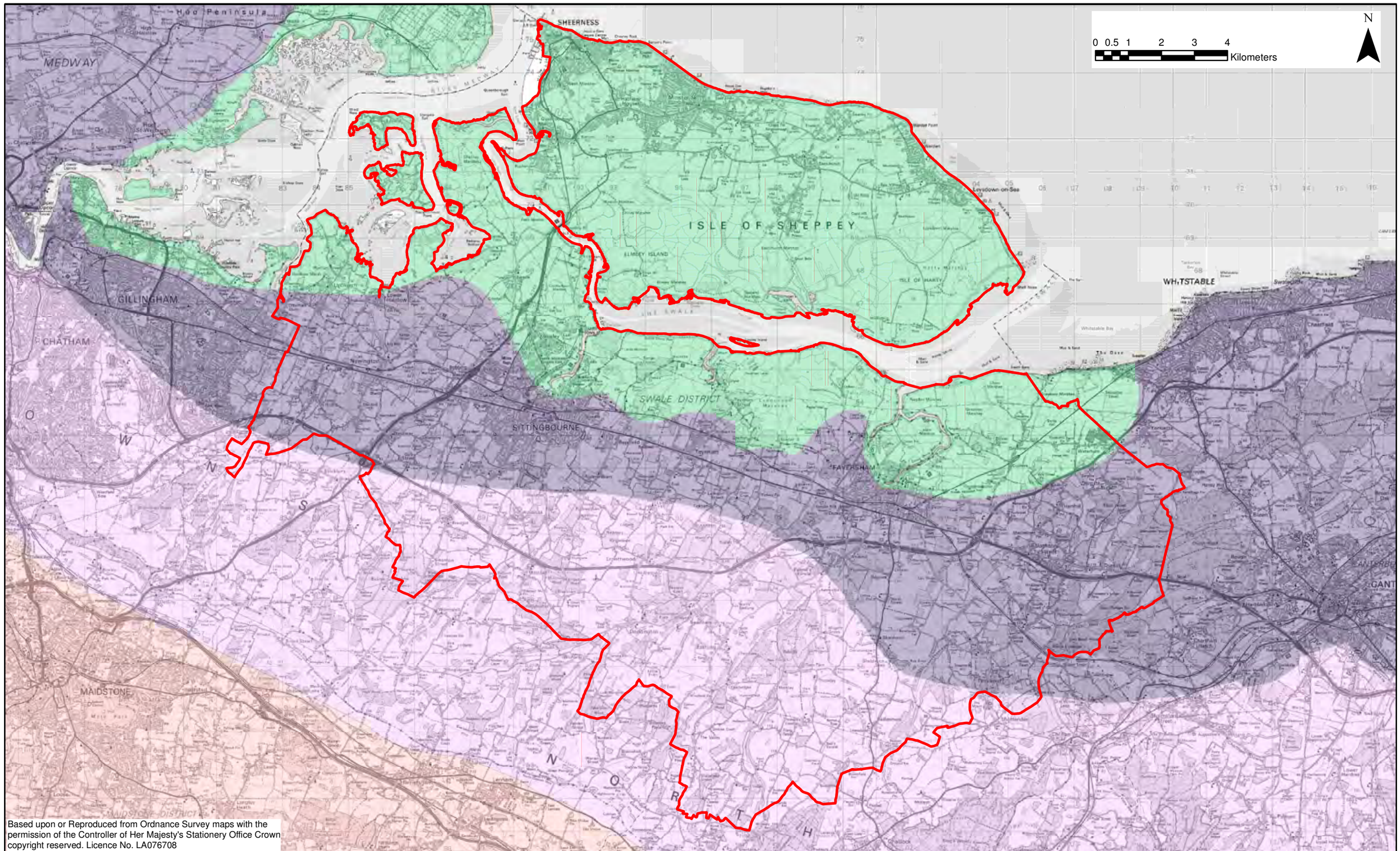
Swale Borough Boundary

Agicultural Grade

- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5

- Non Agricultural
- Urban

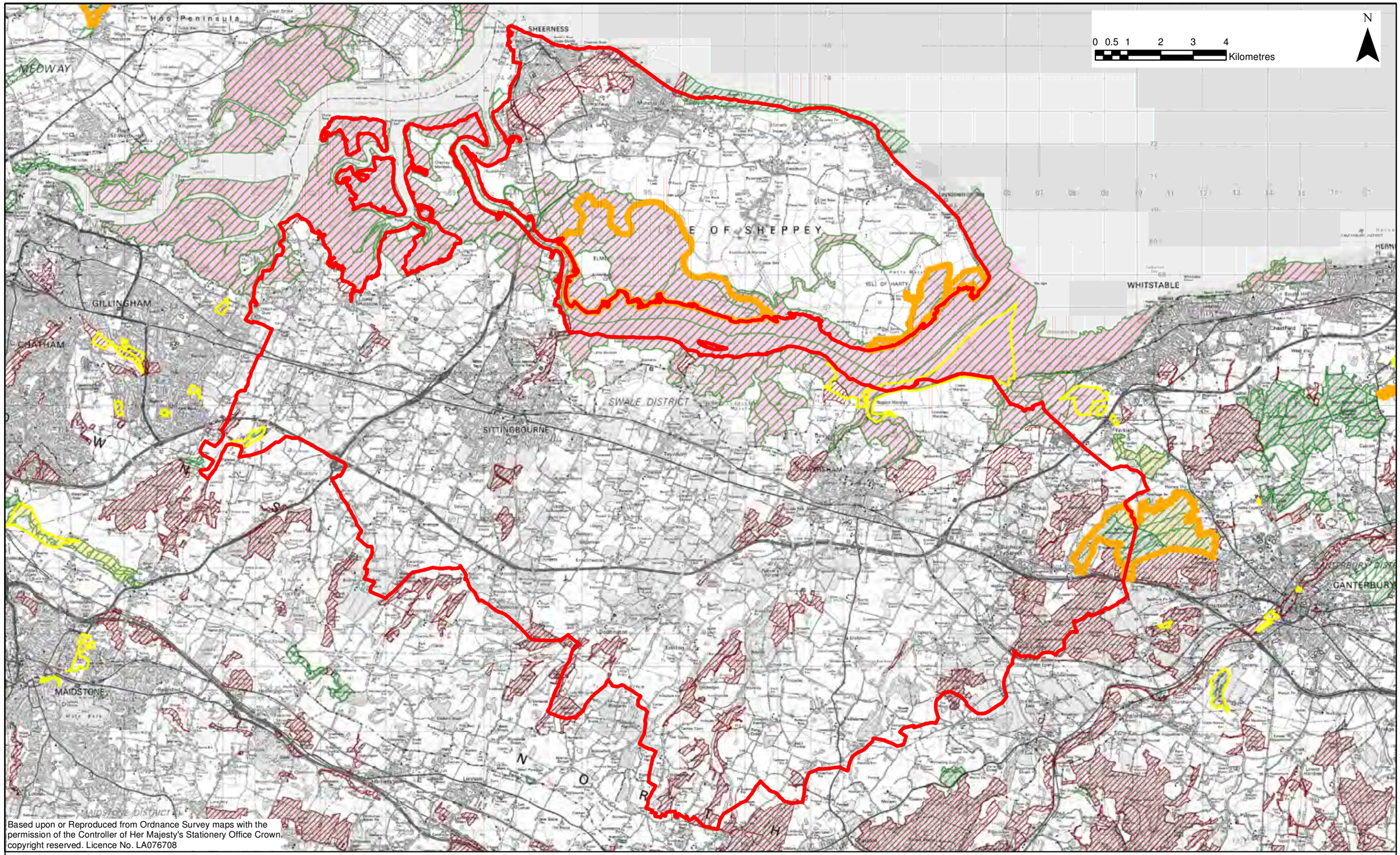
Figure 6: Agricultural Land Classification (Ministry of Agriculture, Fisheries and Food)



Legend

- Swale Borough Boundary
- Greater Thames Estuary
- North Kent Plain
- North Downs
- Wealden Greensand

Figure 7: Natural Areas/ National Character Areas



Legend

- Swale Borough Boundary
- Special Area of Conservation
- Special Protection Area for Birds and Ramsar Site
- National Nature Reserve
- Site of Special Scientific Interest
- Local Wildlife Site
- Local Nature Reserve

Figure 8: Biodiversity Designations