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Thurrock Integrated Landscape Character Assessment

Part 2: Landscape Character Profiles

Final Report
Prepared by LUC
October 2018



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Client: Thurrock Council

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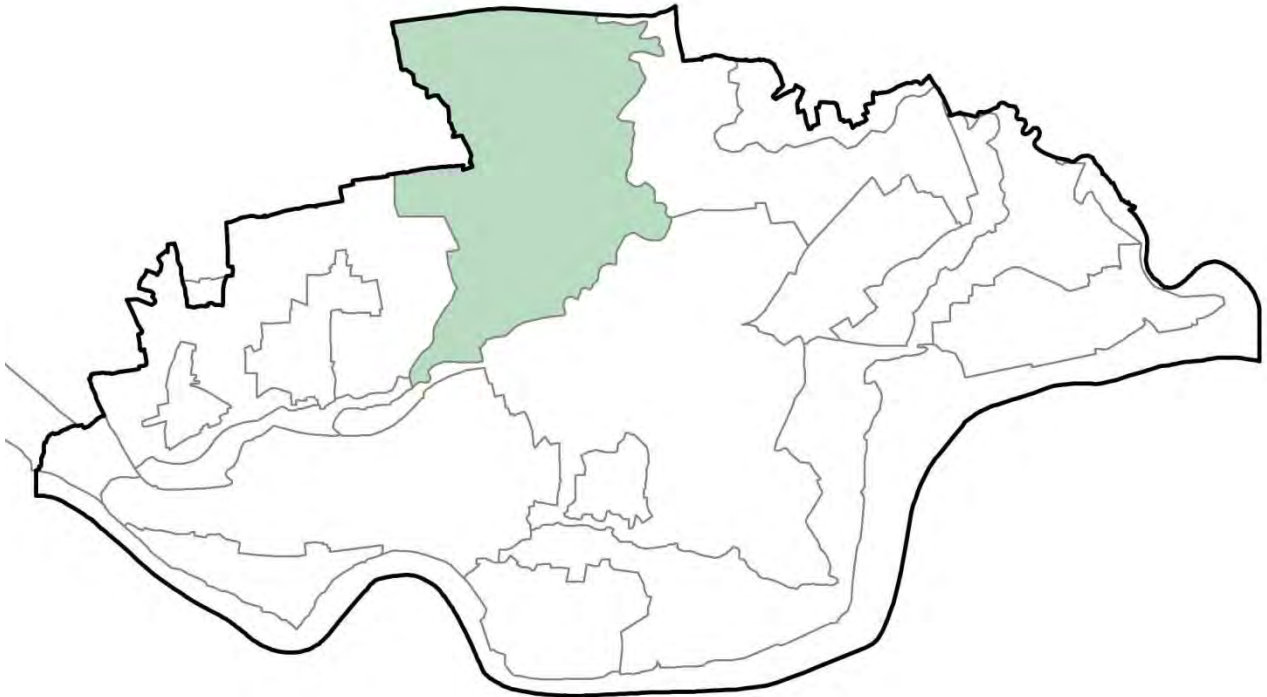
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Landscape Character Type and Area Profiles

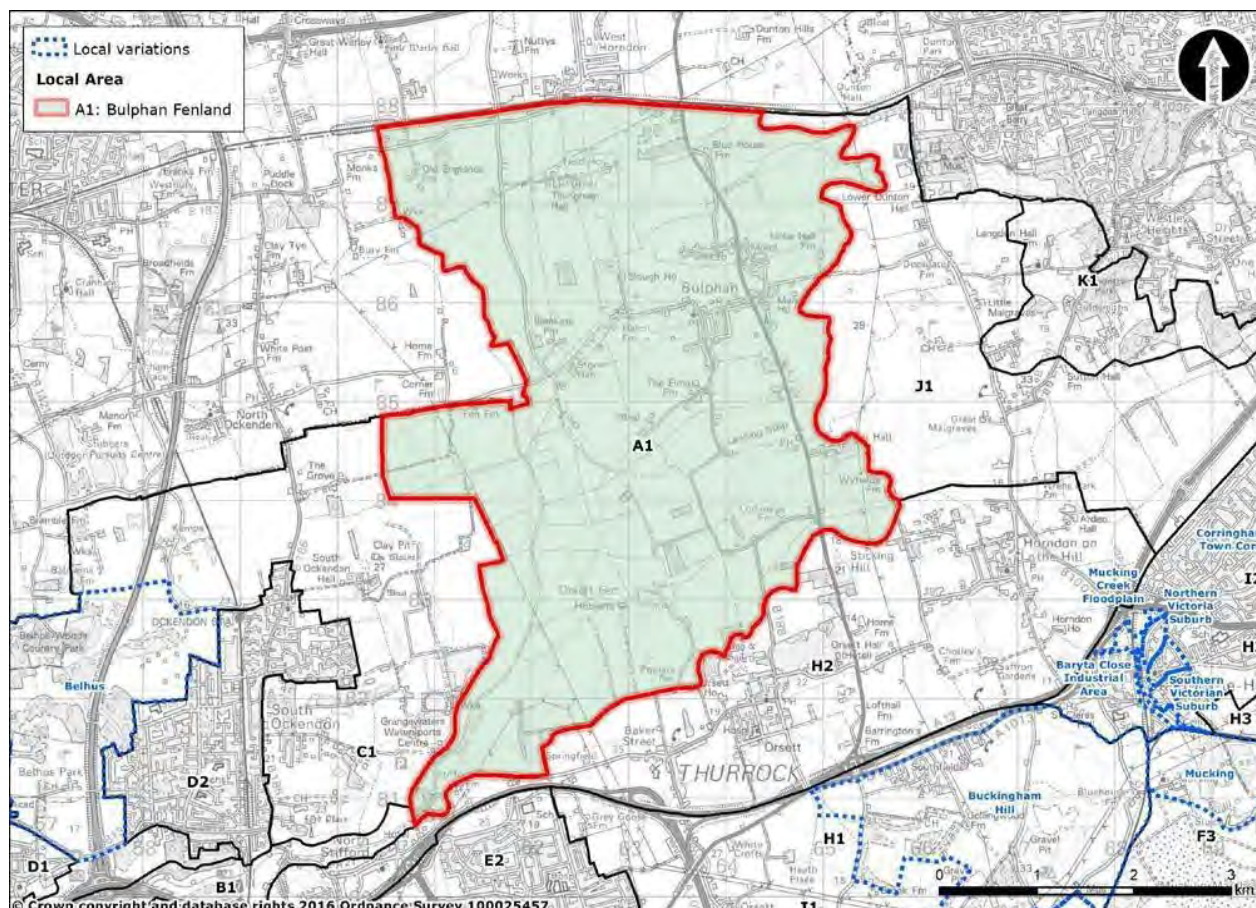
This section contains the landscape character type and area profiles including descriptive and evaluative information packaged by Local Landscape Type.

LCT A: Fenland



- A1.1 This landscape type is defined by the upper catchment of the Mar Dyke river which lies within an area known as the Bulphan basin marked by a fan of alluvium overlying clay geology that supports a cultivated landscape of former fenland. From here the river flows south into the more contained landscape of the adjacent **LCT B: River Valley** and eventually on to the Thames at Purfleet. The area is low lying, mostly less than 10m above sea level. The catchment continues north-west outside of the borough into Havering and Brentwood districts.
- A1.2 There is one character area associated with the 'Fenland' character type in Thurrock:
- **LCA A1: Bulphan Fenland**

A1: Bulphan Fenland



Location and Boundaries

- A1.3 The Bulphan Fenland extends from the northern edge of Grays along the Mar Dyke and up to (and beyond) the administrative boundary of the Borough of Brentwood at West Horndon. The settlement of Bulphan is situated in the centre. To the west is a gradual transition to the **LCA C1 Belhus Farmed River Terrace Gravels**, drawn along field boundaries. The southern edge also forms a gradual transition, this time to **LCA H2 Orsett & Horndon-on-the-Hill Open Undulating Farmland**. The 15 metre contour marks the eastern extent and provides the boundary between the Bulphan Fenland and the lower slopes of the Langdon Hills (**LCA J1 Langdon Lower Hill Slopes**).

Photos



Isolated cottages and farmsteads located to the outer edges of Bulphan are made up of red brick, white render and weatherboarding and create a blurring of the settlement edge.

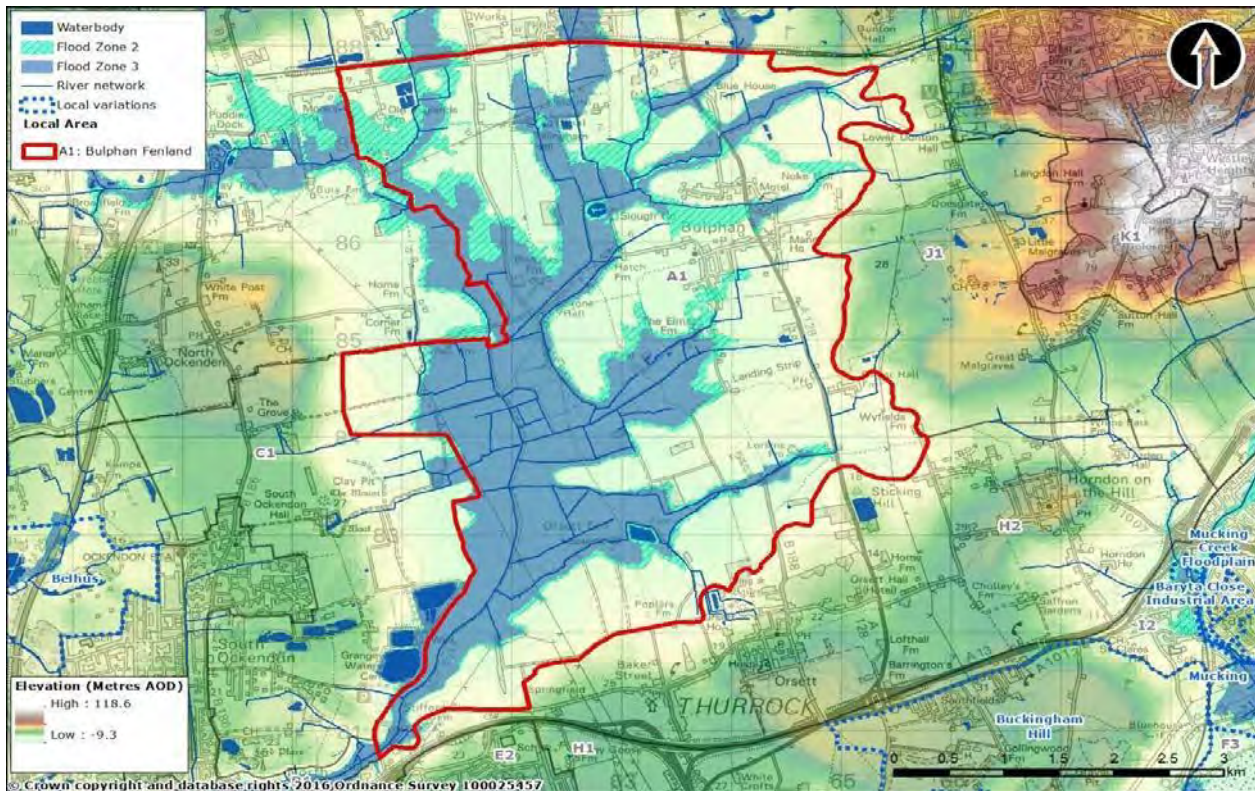


Large-scale fields have been subject to considerable boundary loss but are defined by drainage ditches and hedgerows where country lanes are present.

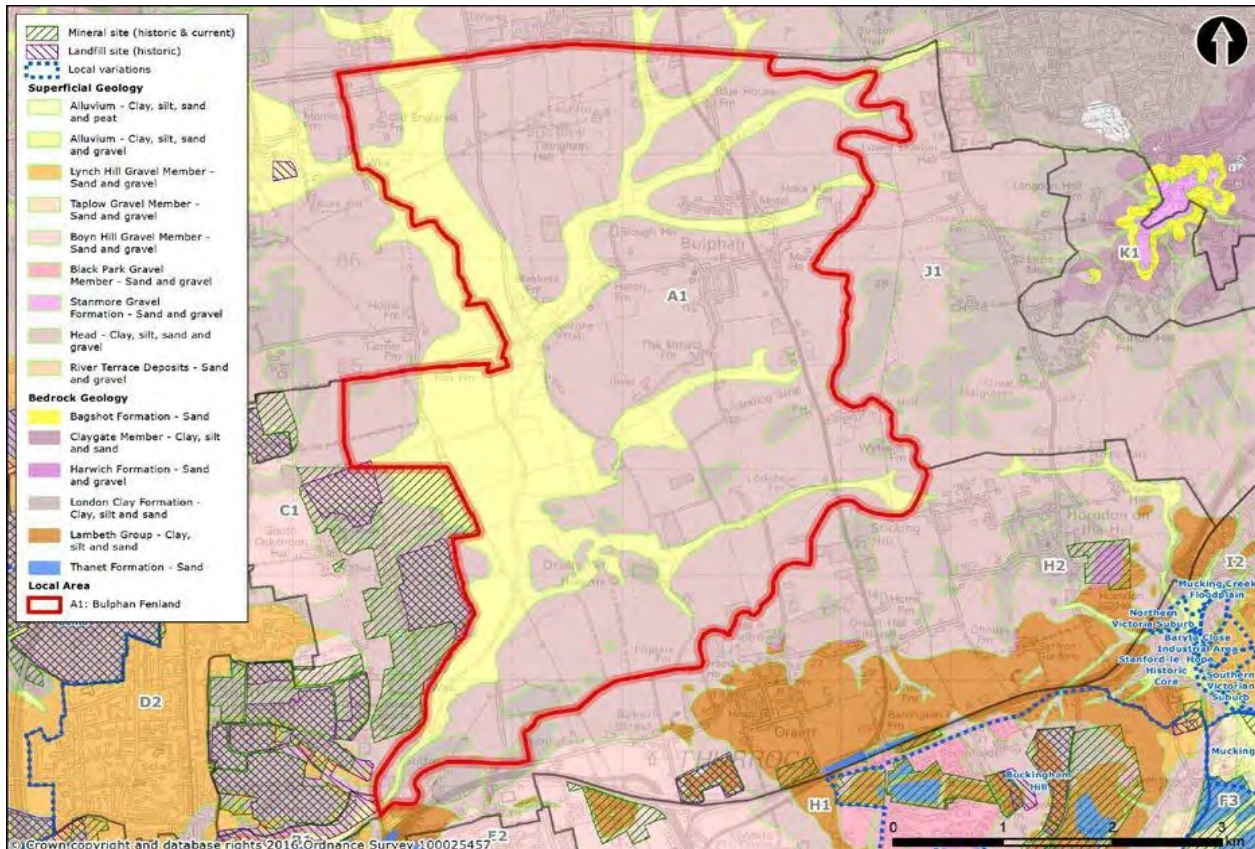


Open expanse of arable and pasture fields throughout the fenland allow for long-ranging views towards the conurbations of Thurrock.

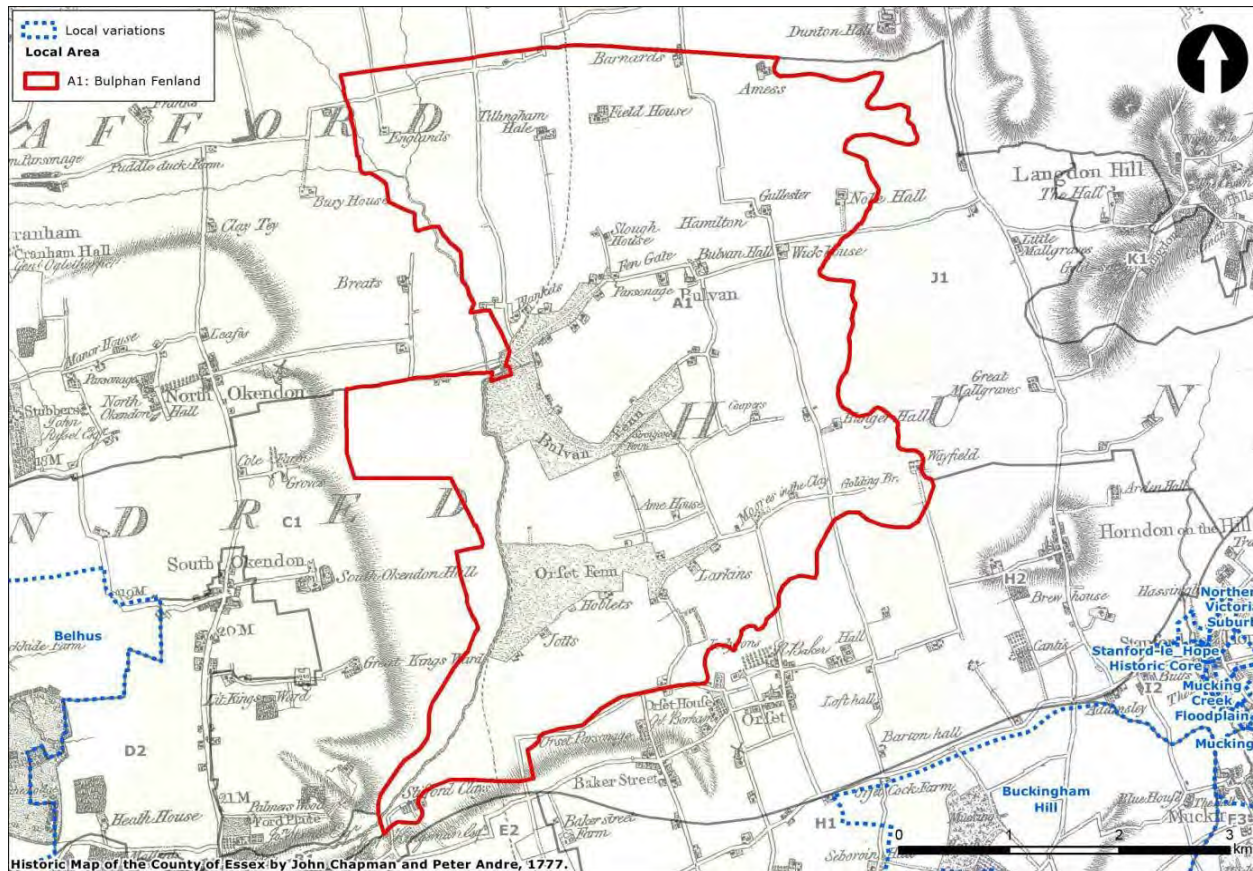
Topography and Drainage



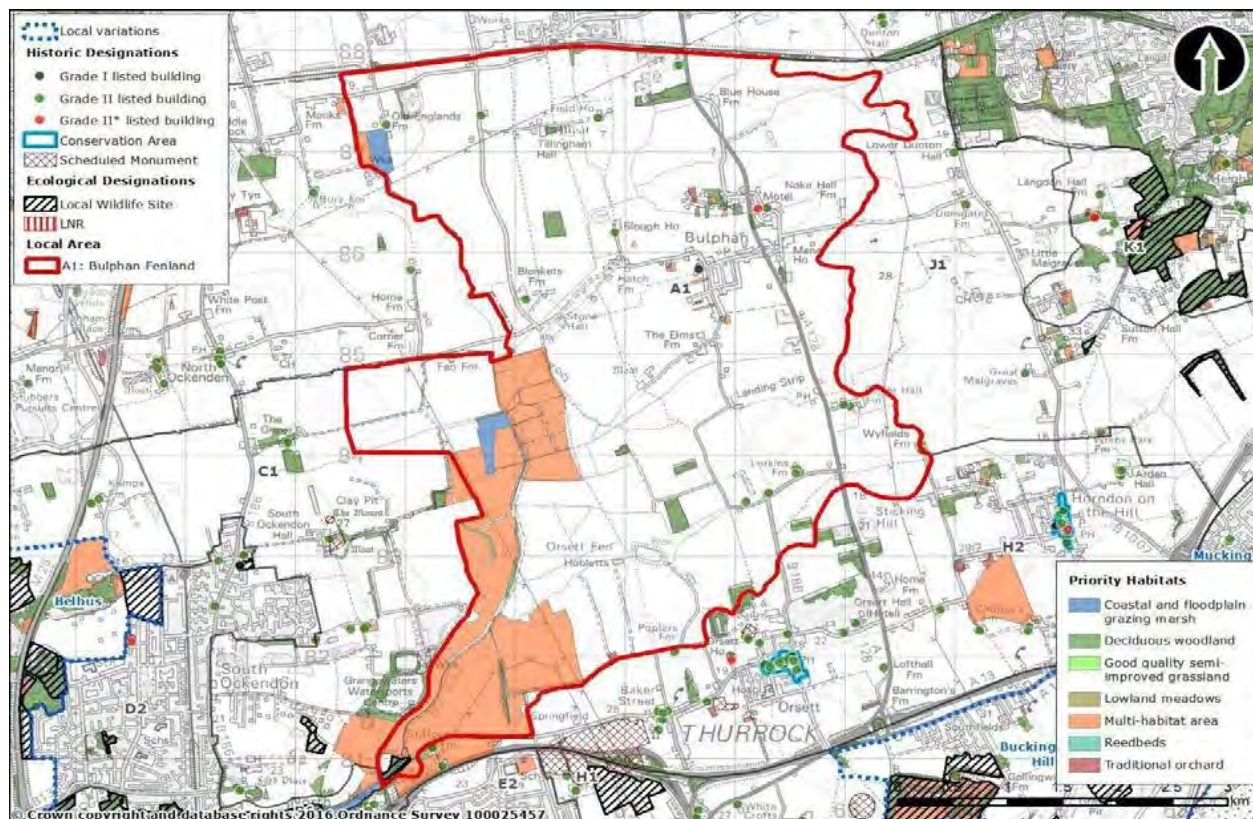
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- A1.4 The former fenland of the upper Mardyke is a low lying, intensively cultivated landscape contrasting with the adjacent distinctive wooded lower valley. Fields are subdivided by drainage ditches or hedges with a strong, geometric field pattern aligned on a north/south axis, probably of pre-Roman origin. Relict drainage features are evidence of the long history of land drainage and agricultural land reclamation.

Key Characteristics

- An open flat and low-lying landscape, contained within a gentle bowl-like landform that contains the upper catchment of the Mar Dyke which is marked by a line of wetland vegetation.
- Superficial deposits of alluvium of Head cover the whole area (underlain by clay), giving rise to fine silty over clayey soils affected by ground water which in turn gives rise to moderate quality agricultural land.
- A mixture of arable and pasture farmland predominates with a few scattered coverts of deciduous trees (a priority habitat) interspersed throughout.
- Many waterbodies including infield ponds and small reservoirs are situated throughout the landscape.
- A considerable portion of the area is Flood Zone 3 and the area has a long history of being drained, with a strong, geometric field pattern aligned on a north/south axis, probably of pre-Roman origin.
- Many field patterns have been lost to 20th century intensive farming – some smaller rectilinear pasture fields around Bulphan are more well-defined by field boundaries.
- Few remaining areas of fenland, although there are some small areas of floodplain grazing marsh (a priority habitat) and an area of Open Access Land at Orsett Fen.
- A sparse pattern of settlement with individual farmsteads and halls located close to existing rural roads, typically constructed from red brick or white rendered with clay tile roofs and weather-boarded barns and many recognised by listed status.
- The area has a tranquil, rural character and a feeling of remoteness with relatively dark skies which contrasts with the built-up and industrial parts of Thurrock.
- Long distance views from the edge of Bulphan across the fenland towards Thurrock and London in the south with tall industrial chimneys and buildings prominent on the skyline.
- A well-wooded ridge running between Romford and Basildon provides a subtle but distinctive backdrop to views from this area.
- St Mary the Virgin Church in Bulphan forms a local landmark to routes through the village.
- Intervening mature hedgerows and lack of street lighting allows Bulphan to assimilate into an otherwise remote and rural landscape although Bulphan By-Pass and associated street lighting have a minor urbanising influence.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock is comprised predominantly of clay, silt and sand of the London Clay Formation, but this is almost totally masked by superficial deposits. Alluvium (formed of clay, silt, sand and gravel) covers a wide area around the Mar Dyke and connecting tributaries whilst Head (comprised of clay, silt, sand and gravel) covers the remaining area.
Topography	The character area is low-lying and generally flat but is situated within a bowl-like landform, sloping gradually to the south. The land at the southern and eastern boundaries reaches a modest height of 10-15m AOD where it transitions to the Lower Langdon Lower Hill Slopes and Orsett & Horndon-on-the-Hill Open Undulating Farmland, and rises to 5m AOD at the western edge where it transitions to the Belhus Farmed River Terrace Gravels.
Hydrology	The Mar Dyke flows through the area eventually leading to the Thames in the south west. A considerable portion of the Fenland character area is Flood Zone 3 and a large number of drainage ditches following field boundaries draining into the river from east to west.
Soils	Soils are largely influenced by the river and its deposits which have resulted in stoneless clayey, fine silty and fine loamy soils affected by groundwater along the route of the Mar Dyke with an isolated area of deep stoneless silty soils also affected by groundwater around Bulphan. The remainder of the area is characterised by slowly permeable seasonally waterlogged clayey soils mostly with brown subsoils. Some fine loamy over clayey soils and fine silty over clayey soils are also present. This gives rise to Grade 3 Agricultural Land (i.e. land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield).
Land Use	The Fenland is made up of predominantly mixed arable and pastoral fields with a few scattered coverts interspersed throughout. A private landing strip is an anomaly in the east and sits within a patchwork of agricultural fields.
Land Cover and Biodiversity	Intensive farming has resulted in a relatively weak field pattern creating a sense of openness across the fenland. Smaller rectilinear pasture fields around Bulphan are more well-defined by field boundaries. Farmsteads are interspersed throughout the area and generally have a degree of containment from adjacent tree planting. There are small areas of floodplain grazing marsh and occasional blocks of deciduous woodland (which are both recognised as priority habitats). There are no areas designated for their biodiversity or nature conservation value.
Settlement Pattern/ Form	The area has a sparse pattern of settlement with a few individual farmsteads mainly located close to existing rural roads. The exception is the remote village of Bulphan situated in the centre. The settlement is small in size and the old part has an irregular and dispersed layout pattern with a Manor house, Church and Farm spread out along historic roads. A small concentration of 1970s housing is arranged in a rectilinear form along 3 parallel roads adjacent to the village church, with linear branches extending from the edge. Back gardens of properties make up the outer edge of Bulphan although isolated cottages and farmsteads, located along rural lanes and leading from Bulphan, create a blurring of the settlement edge.
Building Style	Buildings within Bulphan comprise a mixture of semi-detached and detached housing of varying ages and styles. Render and brickwork facades and mock Tudor facades are commonly found in the same streets. Several historic buildings are also situated in the village dating back to the medieval period and older buildings are typically set within newer development. Buildings in the wider landscape and older parts of Bulphan are typically farmsteads or detached houses. The typical local materials seen in older buildings include red brick, white render, red clay tile roofs (or slate on some buildings) and weatherboarding.
Historic Landscape Time	The landscape has changed considerably since the 1950s, mostly as a result of boundary loss related to intensive farming. Although the landscape is mostly now '20th century agriculture' (as classified in the historic landscape character assessment), there are some areas of 18th-19th century enclosure and areas of Common, for example at Orsett Fen. The village of Bulphan has origins dating back to the pre-medieval and medieval

Landscape Component	Description
	period and was predominantly based on individual farm plots dispersed in an agricultural landscape up until the early 20th century. It did not attract the overspill from London during the interwar and immediate post-war period and still retained its rural character with houses dispersed along the three roads which traverse the village. A housing estate was built in the 1970s south of Bulphan Hall which would have likely tripled the village's population. Further development to the north of the village occurred towards the end of the 20th century, at the same time as Bulphan by-pass was constructed. A few moated houses are located within the village including Ye Olde Plough House Motel, formerly Garlesters and Appleton's Farm dating from the 15th century. Several listed buildings are also scattered throughout the area, including farmsteads, halls, barns and St Mary The Virgin Church in Bulphan.
Cultural Associations	Bulphan is recorded in the Domesday Survey as Bulgenen, which means marshland in a fortified place. Phan relates to the word fan, which is the Saxon word for fen. The land at Bulphan was owned and farmed by the Abbey of Barking.
Scenic Qualities	The long distance, panoramic views across the sparsely settled landscape including up to the wooded hills contributes to a relatively high scenic quality. The small amount of urbanising features such as the Bulphan bypass is relatively well-integrated into the landscape.
Perceptual Qualities	The fenland has a strong sense of rurality and tranquillity as a result of the open and mostly undeveloped landscape. Long views to a well-wooded skyline create a feeling of remoteness. The little human influence within the landscape gives rise to dark skies for much of the area.
Visual Character and Views	Long distance, expansive views can be achieved across large scale fields and facilitated where hedgerow loss has occurred. The settlement edge of Bulphan is generally well-contained by tree planting but expansive views out can be obtained in the south around the recreation ground and in the north through gaps in the hedgerows. A well-wooded ridge running between Romford and Basildon (including 'Type F-Wooded Farmland' within Brentwood District; 'Wooded Hills and Ridges' within Basildon District; and 6F 'Langdon Hills and Ridges Higher Farmland and Woods' within Thurrock) provides a subtle but distinctive horizon in views from this area.
Landmarks and Skylines	Langdon Hill provides a distinctive wooded backdrop to the east whilst St Mary The Virgin Church forms a local landmark from in and around the village of Bulphan. Industrial chimneys and buildings provide vertical features in long distant views across the area and from the edge of Bulphan. These are viewed in a largely rural context being situated on largely wooded skyline.
Landscape Function and Green Infrastructure	This large area essentially provides a rural setting to the north east of Thurrock with an existing network of recreational routes dissecting the landscape. The Orsett Fen is proposed as a Strategic Semi-Natural Greenspace whilst a number of Strategic Green Links are proposed through the fenland connecting with the neighbouring settlements and Langdon Hills. The Mar Dyke is also highlighted as an existing Green Corridor as identified within the Thurrock Green Infrastructure Plan.

Character Evaluation

Landscape Quality/ Condition

- A1.3 Landscape quality (condition) is influenced by the condition of landscape components. The landscape is generally intact due to the consistency of land use as agricultural land. The remnant field boundaries are gappy and some are missing which weakens the field pattern. Arable fields and surrounding hedgerows are well managed and the landscape retains its rural character. Buildings within Bulphan and isolated farmsteads are in good condition. Built features are relatively well integrated, with trees softening the settlement edge to the wider landscape. An exception to this is the Bulphan By-Pass and associated street lighting, which has a minor urbanising influence where hedgerows have been removed or are not as strong. Views to the Langdon Hills provide a relatively strong scenic quality with glimpses to industry in the south having a minor influence.

Past change

- A1.4 Loss of field boundaries and increased drainage due to intensive farming has resulted in the destruction of the fenland's semi-natural habitats, reduced tree cover and hedgerows and resulted in larger scale fields during the 20th century. The landscape remains largely unsettled although the introduction of housing estates in Bulphan and the Bulphan By-Pass and associated street lighting has also had an influence on the rural character of the landscape.

Key sensitivities and valued attributes

- A1.5 The value of some features is recognised through designations, such as listed status that protects some of the historic farmsteads, halls, barns and church in Bulphan. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The landform that remains relatively intact compared to other areas of Thurrock (except in the area of the clay pit).
 - The course of the Mar Dyke with its wetland vegetation which provides visual interest and a green corridor comprising wet land habitats.
 - Field ponds which provide further visual and biodiversity interest.
 - The coverts of deciduous trees (a priority habitat) which provide visual interest and biodiversity interest.
 - The strong, geometric field pattern and particularly survival of older field systems, which provide a sense of history and time depth.
 - Remnant areas of semi-natural fen such as floodplain grazing marsh (a priority habitat) which provide visual interest, historic continuity and a biodiversity interest.
 - The area of open access land at Orsett Fen which provides a sense of history.
 - The sparse pattern of settlement that could be vulnerable to change if new development is proposed.
 - The historic farmsteads, halls and weather-boarded barns that represent the local vernacular, provide scenic interest and provide a sense of history.
 - The tranquil, rural character and dark skies that make the area feel remote from the industrial and urban areas of Thurrock.
 - Local views to the St Mary The Virgin Church within Bulphan village provides a sense of history and forms a local landmark

- Flat, open landscape with long ranging views across the fenland with prominent industrial features on the skyline create visual interest

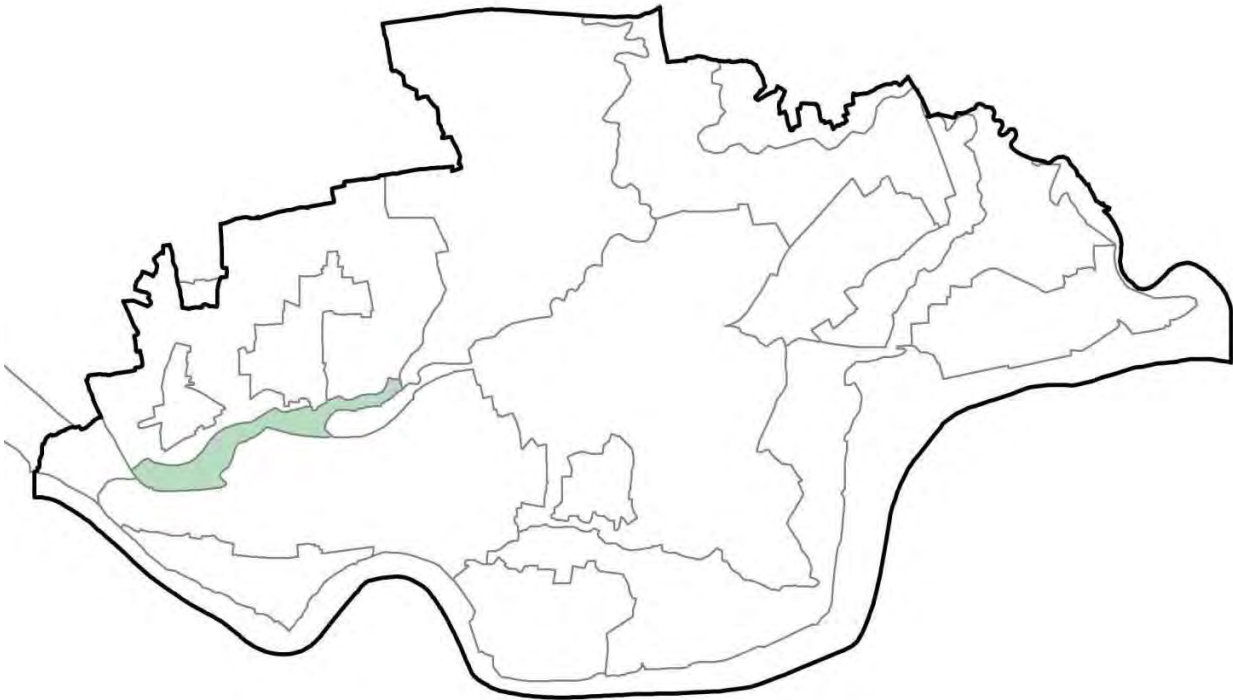
Vision

The vision for this character area is: A well-managed and actively farmed rural landscape with a joined up hedgerow and woodland network and with a dispersed settlement pattern of individual rural buildings, and an attractive and naturalistic river course fringed by areas of restored fenland (including floodplain grazing marsh).

Guidance to conserve and enhance character

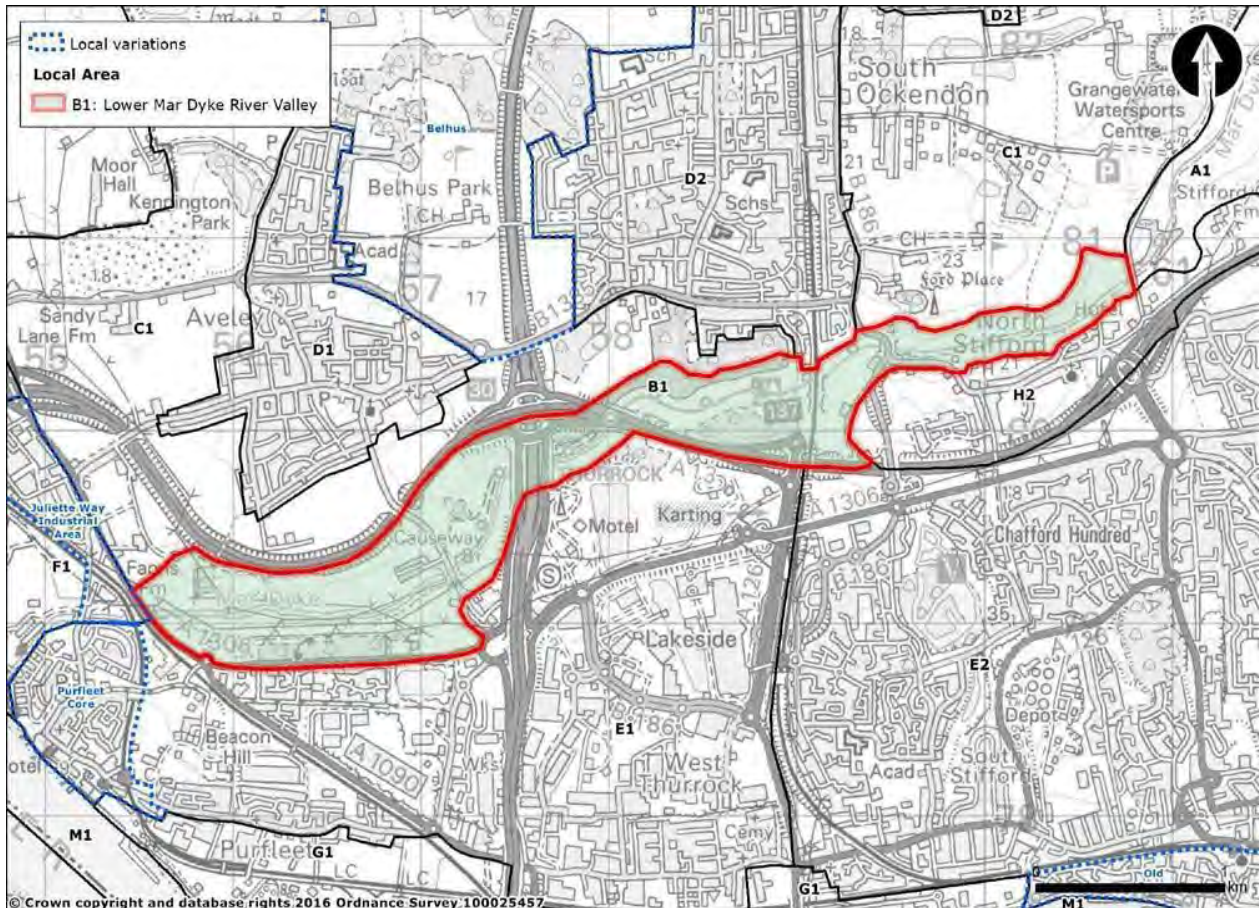
- Restore the fen landscape which has been lost to arable farming, including naturalisation of the river course and restoration of adjacent grazing marsh.
- Restore infield ponds and improve management of those that survive
- Preserve and enhance the network of hedgerows and hedgerow trees through active planting and focussed management.
- Manage existing coverts of deciduous trees to ensure their long term survival and aim to link these up with the hedgerow network – consider locations for additional coverts and woodlands, including wet woodland where appropriate.
- Consider opening up area for informal recreation and enjoyment of the landscape, for example in relation to fen restoration schemes, and enhance connectivity between new recreational areas and long the MarDyke.
- Develop Orsett Fen into a strategic semi-natural greenspace in line with the Thurrock Green Infrastructure Plan and seek to restore the historic fenland wetlands.
- Preserve the pattern of older field systems which provide a sense of history and time depth.
- Preserve the sparse pattern of settlement and the remote character of this landscape – ensure any new building responds to the local vernacular in terms of building styles and materials (historic farmsteads, halls and weather-boarded barns constructed from red brick, white wash render, clay tiles, weather-boarding).
- Conserve and enhance views of the St Mary the Virgin Church at Bulphan.
- Preserve long distance views across the fenland and seek opportunities to create strong vistas.

LCT B: River Valley



- B1.1 This landscape type is characterised by a narrower and more defined valley landform than LCA A, occurring in the lower Mar Dyke river valley as it passes between an area of chalk to the south and London Clay to the north.
- B1.2 There is one character area associated with the 'River Valley' character type in Thurrock:
- **LCA B1: Lower Mar Dyke River Valley**

LCA B1: Lower Mar Dyke River Valley



Location and Boundaries

- B1.3 The Lower Mar Dyke River Valley is located between the Farmed River Terrace Gravels (including the urban areas of South Ockendon and Aveley) to the north, and the Settled Chalk Ridge (Grays and Purfleet) to the south. It extends from **LCA A1 Bulphan Fenland** in the east to **LCA F1 Aveley Marshes** in the west. The northern and southern extents are defined by the top of the valley side (broadly along the 15m contour line); to the north this marks the interface with the plateau occupied by **LCA C1 Aveley & South Ockendon Farmed River Terrace Gravels** and to the south this marks the interface with the **Settled Chalk Ridge** (comprising **LCA E1 West Thurrock, Lakeside & Purfleet**) and **LCA H2 Orsett and Horndon-on-the-Hill Open Undulating Farmland**.

Photos



Well-wooded valley sides provide a strong sense of enclosure and create localised areas with a sense of intimacy.

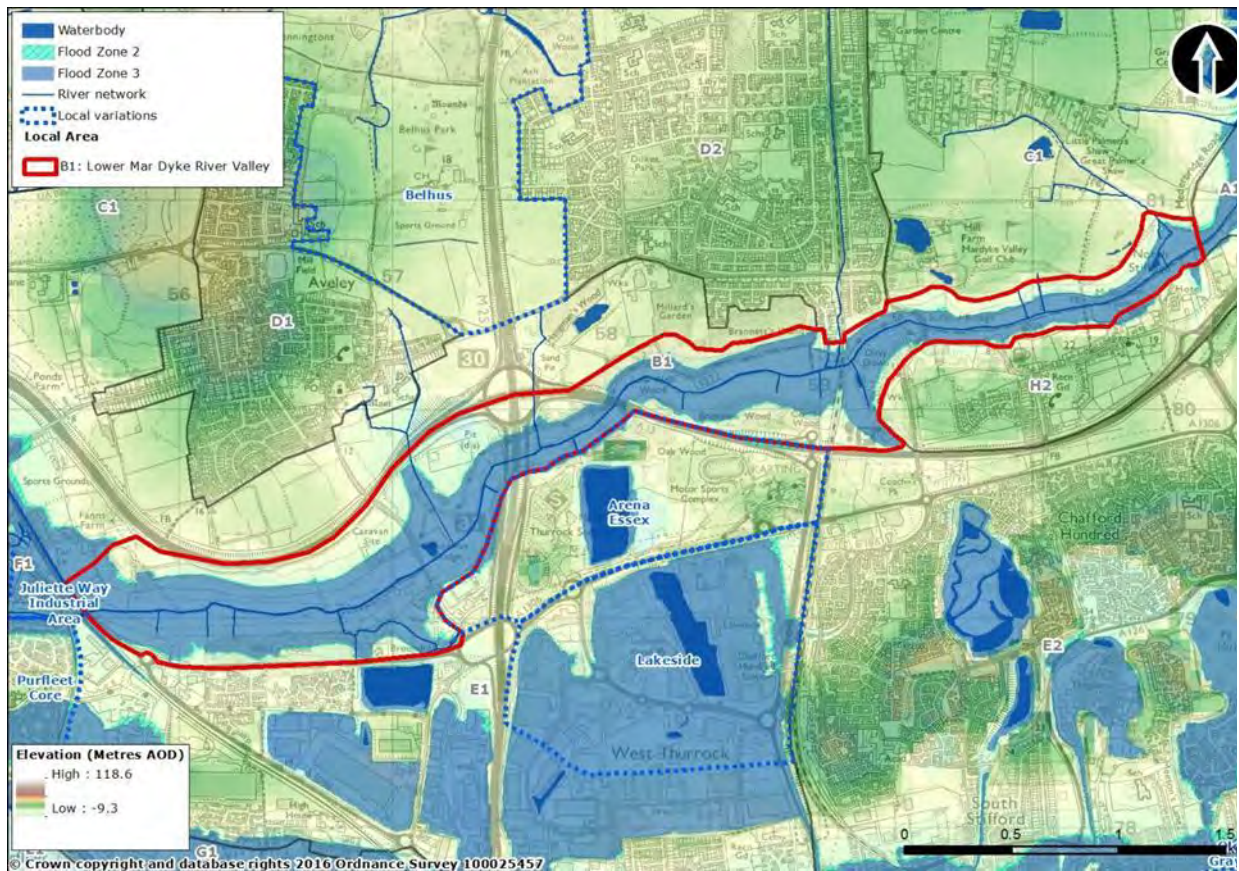


Floodplain grazing resulting in a naturalistic landscape running between relatively large areas of settlement.

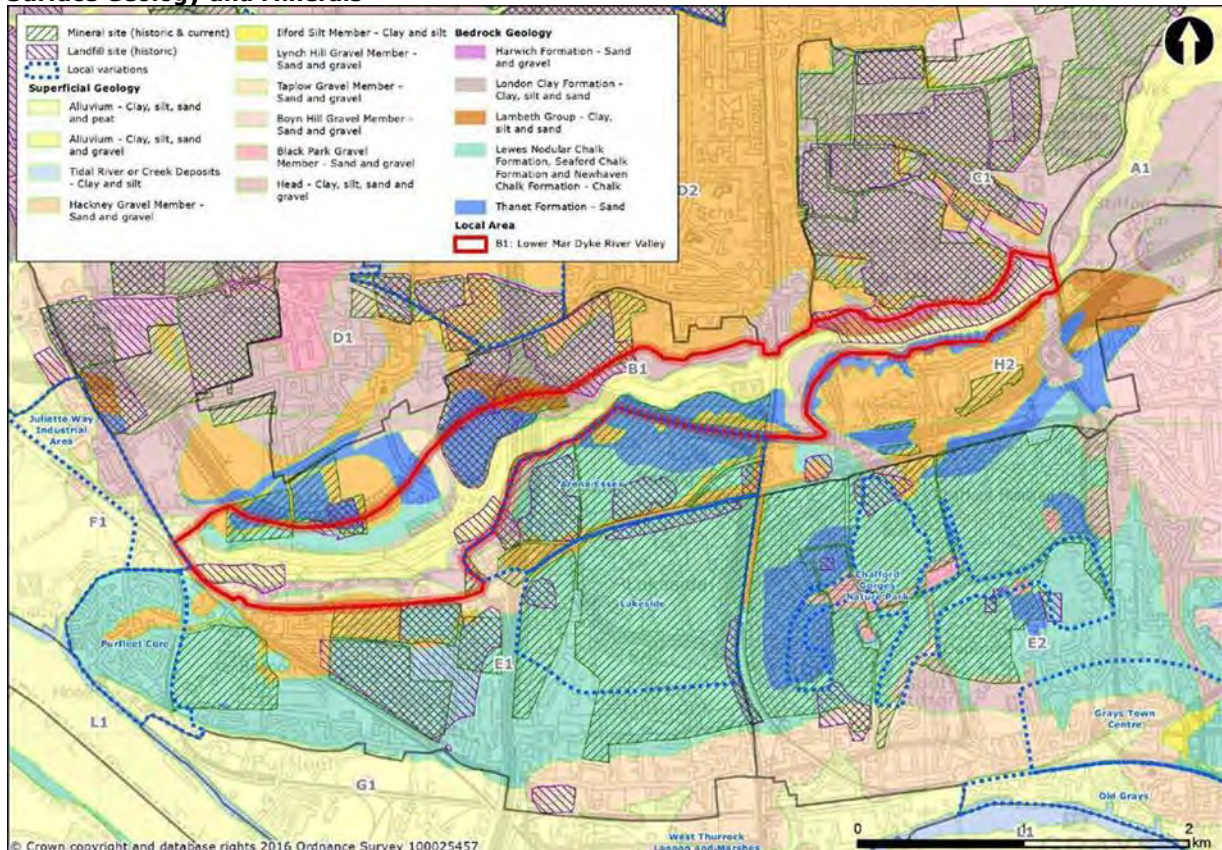


The Stifford Viaduct provides a focal point when viewed from the riverside path

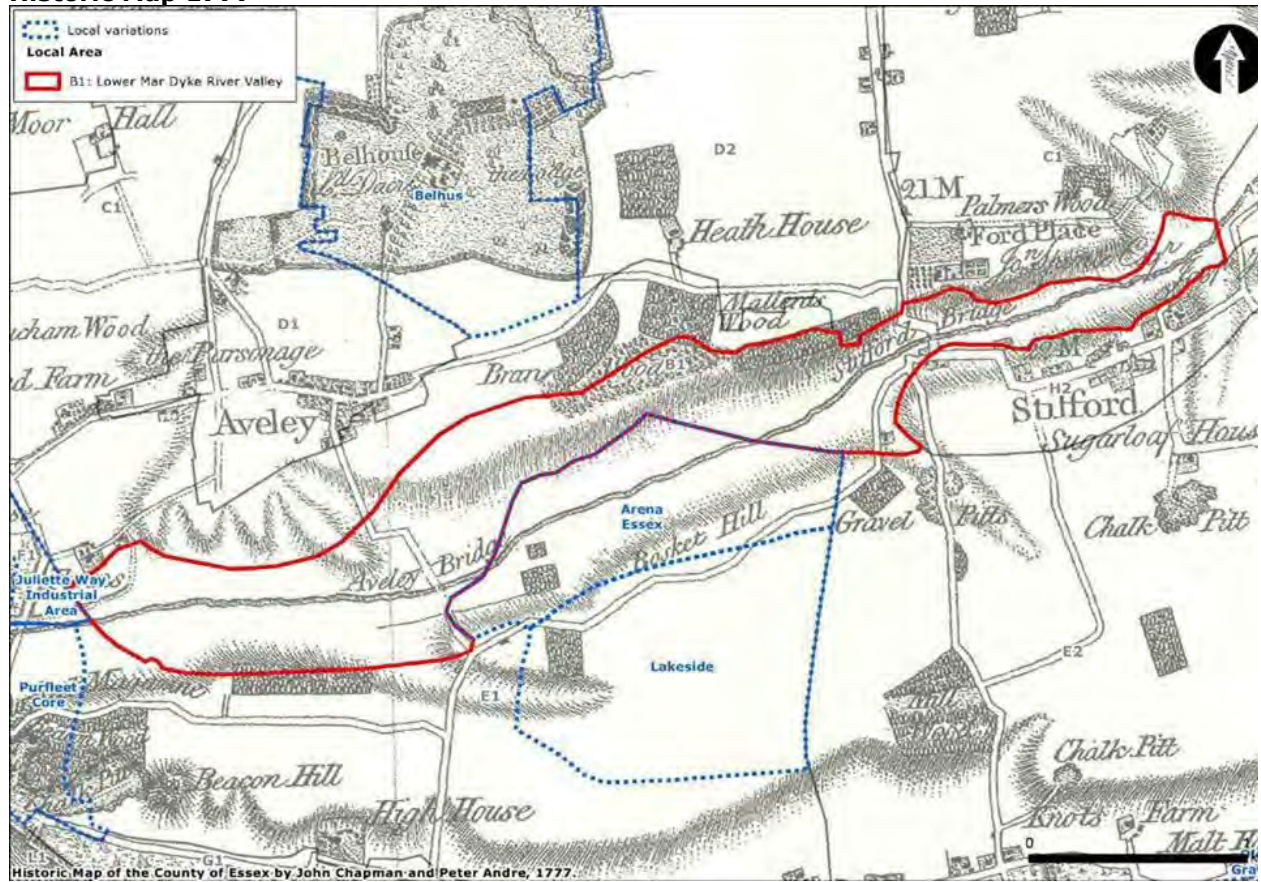
Topography and Drainage



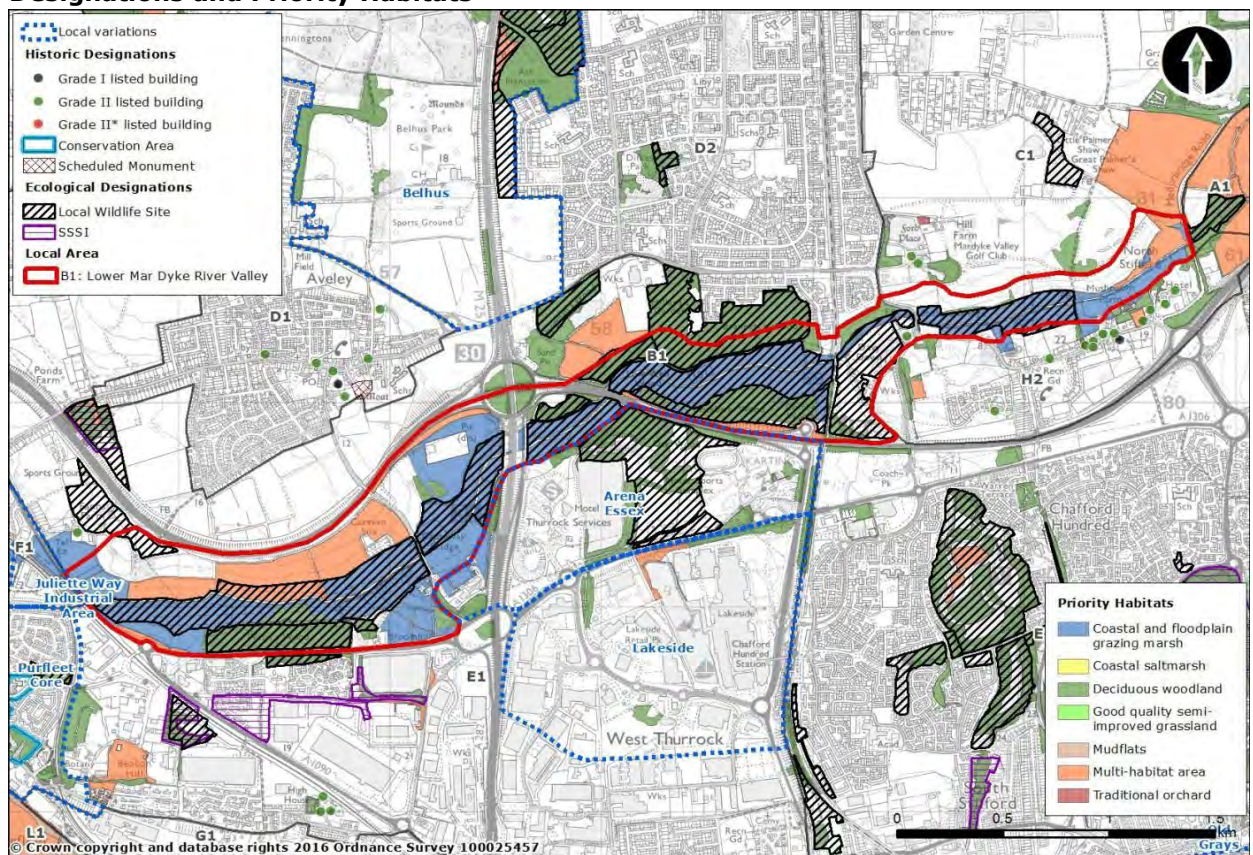
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- B1.4 This area forms a defined valley with wooded valley sides and an alluvial floodplain comprising riverside pasture alongside the Mar Dyke which meanders along the valley bottom. The valley has nature conservation interest and forms a natural break between the farmed river terraces to the north and settled chalk ridge to the south. The valley is crossed by the A13 and M25 which detracts from the sense of tranquillity.

Key Characteristics

- A defined but shallow valley landform, with a notable floodplain and valley sides that rise to around 15m AOD (steep in places), providing a break between adjacent urban areas.
- The Mar Dyke (meaning 'boundary ditch') meanders along the valley floor providing a connection between the inland fen and the Thames at Purfleet.
- The alluvial floodplain supports an ancient system of valley bottom pastures with the valley sides characterised by a mixture of pasture in 18th and 19th century enclosures and woodland – forming a relatively naturalistic landscape in the context of Thurrock.
- Much of the valley is designated as a Local Wildlife Site in recognition of its floodplain grazing marsh, lowland wet grassland and deciduous woodland, some of which is ancient (e.g. Hangman's Wood, Brickbarn Wood and Watt's Wood).
- Historic bridge crossing points including a stone bridge at Stifford that dates back to the medieval period (first built in 1487).
- Mostly undeveloped, apart from a small hamlet at Stifford Bridge, a pumping station which was built in 1926-27 to extract water from a borehole in the chalk, and some more modern additions such as a caravan site.
- Typical historic building materials are red brick, white plaster, thatch and weather boarding.
- Major infrastructure crosses the valley - including a railway (on the Stifford Viaduct, a Victorian railway viaduct with 14 arches opened 1892), the M25 and A13.
- The wooded valley sides provide a sense of enclosure and seclusion from the adjacent built-up areas, but traffic noise and lighting on the crossings disrupt the sense of rural tranquillity.
- The pastoral riverside meadows, historic bridge crossing points and wooded slopes contribute to attractive views that can be experienced from vantage points on the valley sides and from elevated bridges over the valley.
- The valley tops have prominent, typically wooded, skylines although these are intruded upon by tall structures (such as chimneys and pylons) in adjacent areas.
- Stifford Pumping Station provides a local landmark at Davy down - Davy Down is a riverside urban park which provides opportunities for open air recreational and enjoyment of the valley landscape.

Components that Contribute to Character

Landscape Component	Description
Geology	The valley cuts through a bedrock of Seaford and Newhaven chalk; Lambeth clay, silt and sand; and Thanet sand. There is a superficial deposit of Alluvium along the course of the Mar Dyke on the floodplain and Head (clay, silt, sand and gravels created by down-slope solifluction, soil creep and hill wash) on the valley sides.
Topography	The area has a defined but shallow valley landform, with a notable floodplain and valley sides that rise to around 15m AOD (steep in places).
Hydrology	The Mar Dyke meanders along the valley floor floodplain with a number of minor tributaries draining into the valley from adjacent higher land. The Mar Dyke flows into the Thames at Purfleet.
Soils	Soils are influenced by the underlying superficial deposits including river terrace drift, head and alluvium. They typically consist of coarse loamy or sandy soils with some clay enrichment and are well drained on valley sides, although soils are affected by groundwater in the valley bottom. These give rise to Grade 3 (good to moderate quality) agricultural land along the valley bottom with some areas of better agricultural grade land on the sides and upper slopes.
Land Use	The Lower Mar Dyke River Valley is characterised by riverside pasture fields alongside the Mar Dyke with a mixture of pasture and woodland on the valley sides. There is some recreational land use, for example Davy Down which comprises a riverside urban park, a caravan site and a few houses and businesses amongst trees. Major transport routes and a railway line cross the valley.
Land Cover and Biodiversity	Land cover consists predominantly of grassland and woodland which contributes to a naturalistic character. The valley contains three priority habitats: floodplain grazing marsh along the valley floor, lowland wet grassland on the shallow valley sides and deciduous woodland, some of which is ancient (e.g. Hangman's Wood, Brickbarn Wood and Watt's Wood). Much of the valley is designated as a Local Wildlife Site in recognition of these habitats. The river valley is an important migratory route for birds heading to and from the marshes.
Settlement Pattern/ Form	The area is mostly undeveloped, apart from a small caravan site, a small number of dwellings at Stifford Bridge, and a pumping station and a visitor centre at Davy Down.
Building Style	There is a white rendered and thatched cottage with a weather boarded barn set amongst trees at Stifford Bridge (Grade II listed) in the valley bottom. Otherwise materials are not in the local vernacular - the caravans are arranged in a small grid pattern and comprise prefabricated mobile homes, accessed from a single track road off Ship Lane. Buildings within Davy Down comprise a brown brick pumping station with tall windows and distinctive arches as well as a visitor centre in similar materials.
Historic Landscape and Time Depth	This character area has maintained its historic character better than some other places in Thurrock due to the ancient system of managed valley bottom pasture represented by a series of ditched enclosures on either side of the Mar Dyke, pre -18th century fields and woodland (including ancient woodland). Some of the managed wetland was lost between the 18th and 19th century to enclosure which has since been turned to 20th century agriculture. Mineral extraction works on a small scale also took place before it was restored as 20th century agriculture. The stone bridge crossing at Stifford dates back to the medieval period being first built in 1487. A listed late 17th century cottage (timber framed and plastered, with weather boarded plinth and west side and a thatched roof) lies adjacent to it. The Stifford Viaduct is a Victorian railway viaduct with 14 arches (opened in July 1892).
Cultural Associations	The name Mar Dyke means 'boundary ditch' and originates from the Anglo-Saxon era. The Mar Dyke river used to be tidal up to Stifford until the 1760 and was an historic communication corridor providing connections between the inland fen and the Thames. Stifford Pumping Station was built in 1926-27 to house large diesel engines which provided the power to extract water from a 42 metre deep borehole in the chalk below. Water is still being extracted today using a modern electric pump.
Scenic Qualities	The Mar Dyke Valley has a moderate scenic quality. The pastoral riverside meadows, historic bridge crossing points and wooded slopes are attractive elements, and the ten

Landscape Component	Description
	metre high arches of the Stifford Viaduct creates visual interest within the valley. However, modern transport routes and junctions (including Junction 30 of the M25, the A13 and the A1306) have a dwarfing effect upon the valley landform and detract from scenic quality.
Perceptual Qualities	The wooded valley sides provide a sense of enclosure and seclusion from the adjacent built-up areas. However, the traffic noise and lighting from major infrastructure crossings disrupts the sense of rurality and the tranquillity of this otherwise secluded landscape.
Visual Character and Views	There are some views across the valley from the valley sides where woodland allows, for example from the footpaths and roads that descend the valley sides. Vantage points from elevated road and rail crossings offer views along and across the river valley framed by the woodland on the slopes. Industrial chimneys, pylons and other tall structures in the adjacent areas rise above the wooded skyline and act as visual detractors, as do the modern bridge crossings and associated lighting, signage and traffic.
Landmarks and Skylines	The valley tops have prominent, typically wooded, skylines although these are intruded upon by tall structures (such as chimneys and pylons) in adjacent areas. When viewed from the valley floor major road crossings and associated lighting and signage breach the skyline. Stifford Pumping Station provides a local landmark as seen from Davy Down.
Landscape Function and Green Infrastructure	The area provides a relatively naturalistic greenspace and break between adjacent urban areas. The course of the Mar Dyke is an important green corridor and is proposed as a Strategic Semi Natural Greenspace in the Thurrock Green Infrastructure Plan. There are also some Strategic Rural Green Links crossing the valley and linking Chafford Hundred with South Ockendon and linking the valley with West Thurrock Marshes. The area forms part of the Thames Chase Community Forest. The Mardyke Way, opened in 2007 as part of the Thames Chase community forest, is a 7 mile footpath along the side of the Mardyke from Ship Lane, Aveley to Bulphan, passing through Davy Down riverside park.

Character Evaluation

Landscape Quality/ Condition

- B1.5 This is a relatively intact landscape of ancient systems of managed valley bottom pasture, pre - 18th century fields and woodland (including ancient woodland) giving the valley a strong character and a physical and ecological integrity. However, there are a number of detracting features including pylons, modern road infrastructure and traffic, adhoc development and some poorly maintained landscape features which detract from overall landscape quality.

Past change

- B1.6 The Mar Dyke River Valley has been subject to relatively little change in land cover over the years, although some field boundaries have been lost and some areas of wetland have been drained for agricultural use. The biggest changes relate to infrastructure – for example the introduction of the railway viaduct in 1892, and the introduction of bridge crossings and junctions associated with the M25 and A13.

Key sensitivities and valued attributes

- B1.7 The value of the habitats is recognised through local biodiversity designations and the value of the single historic cottage is recognised by its listed status. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The areas of deciduous woodland that provide biodiversity interest, a sense of enclosure and seclusion from the adjacent built-up areas and a wooded skyline and attractive backdrop to views.
 - The Mar Dyke and riverside floodplain which creates visual and biodiversity interest, time depth (as a result of the ancient system of managed valley bottom pastures) and an historic connection between the inland fen and the Thames at Purfleet.
 - The 18th and 19th century enclosures on the valley sides that create a distinctive landscape pattern and sense of history.
 - The historic bridge crossing points, and particularly the stone bridge crossing at Stifford that dates back to the medieval period (first built in 1487).
 - The generally undeveloped character and sense of rurality which provide an escape from adjacent urban areas.
 - The influence of local materials including red brick, white render, thatch and weatherboarding which provide a sense of place.
 - The Stifford Viaduct which provides a sense of history and visual interest, particularly as seen from the Mardyke Way.
 - The Stifford Pumping Station which forms a local landmark and sense of history.
 - Davy Down and footpaths (including the Mardyke Way) which provide opportunities for open air recreational and enjoyment of the valley landscape.

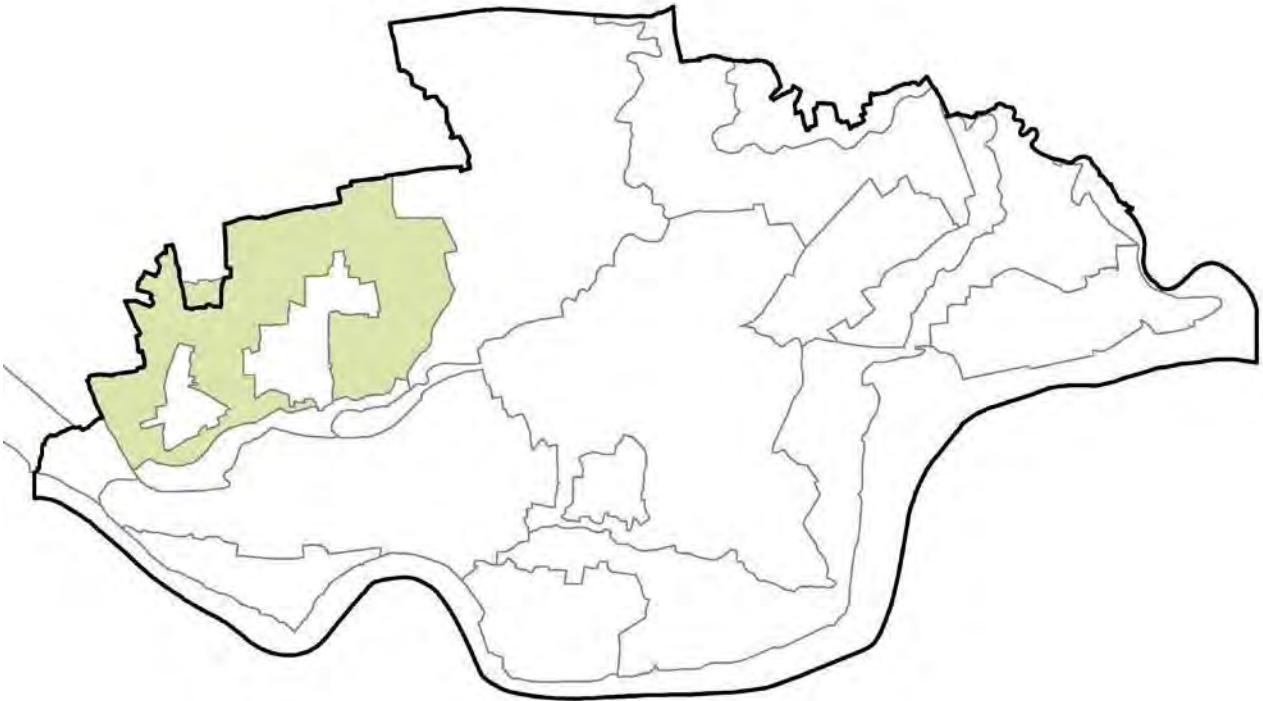
Vision

The vision for this character area is: a naturalistic valley landscape comprising a mosaic of ancient riverside pastures on the valley floor, and a strong pattern of valley side pastures bounded by healthy hedgerows and actively managed deciduous woodlands on the valley sides, creating an accessible greenspace and break between adjacent urban areas and with well-preserved historic landmark features good opportunities for open air recreation and enjoyment of the landscape.

Guidance to conserve and enhance character

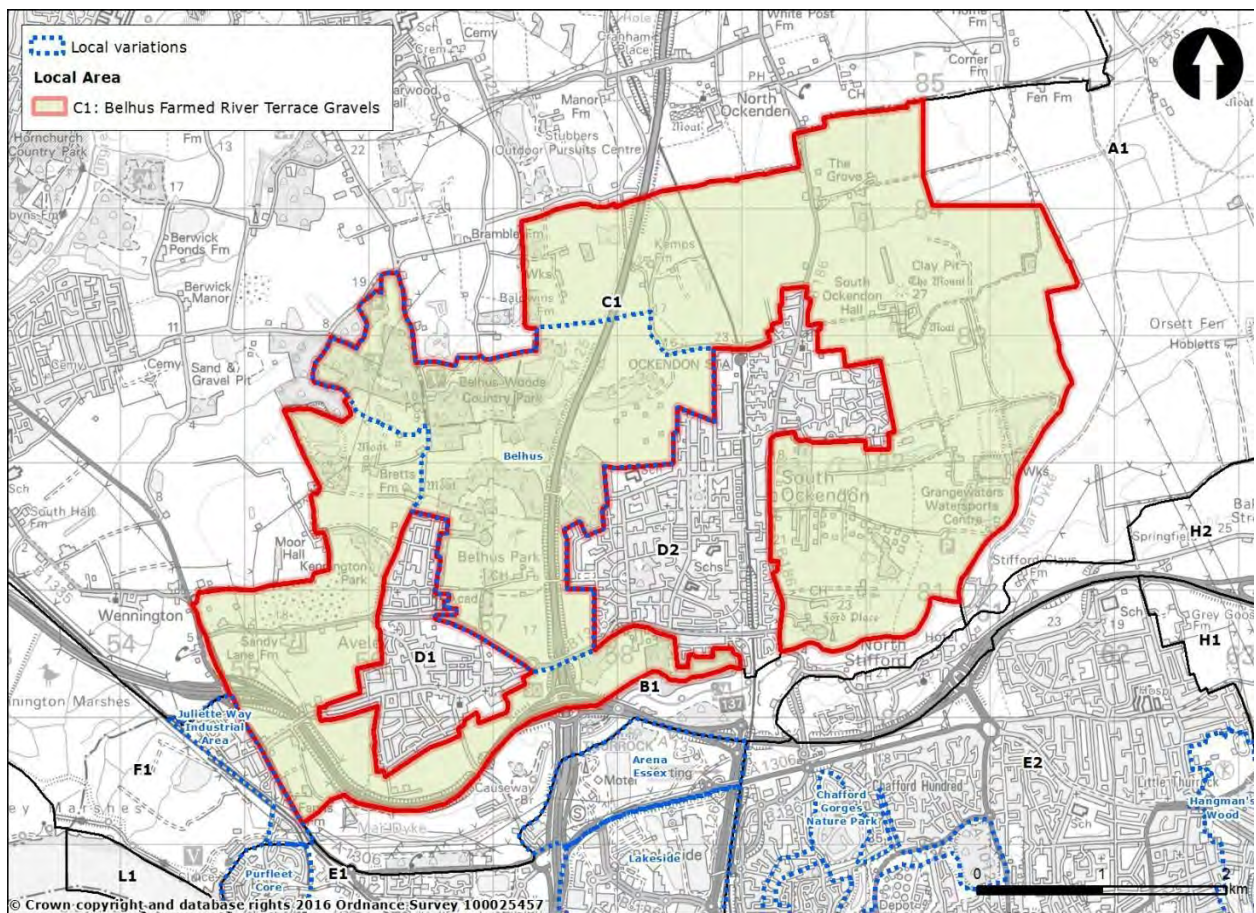
- Conserve and improve the structure of woodlands through active management to ensure they continue to provide an attractive backdrop and wooded skyline as well as biodiversity interest.
- Ensure the survival of remaining historic riverside pastures and extend these where possible to strengthen the pastoral character of the riverside floodplain. Enhance access to the river.
- Maintain the strong enclosure pattern on the valley sides – resist enlarging fields and manage hedgerows to maintain the land valley side landscape pattern.
- Preserve historic features such as bridge crossing points (and particularly stone bridges), historic buildings such as the listed cottage at Stifford Bridge, the Stifford Viaduct and Stifford pumping station.
- Ensure any new buildings reflect local materials including local red brick, white render, thatch and weatherboarding.
- Explore opportunities to provide additional recreational areas and viewpoints with interpretation and other facilities that can enhance understanding and enjoyment of the landscape.
- Consider opportunities to screen infrastructure and built development in adjacent areas to strengthen the secluded and rural character of the valley.
- Pursue the creation of a Mardyke Valley Country Park to achieve nature conservation, landscape and recreational objectives – this could be achieved through a Catchment Management Plan that would integrate management of adjacent land and woodland.

LCT C: Farmed River Terrace Gravels



- C1.1 This landscape type is defined by the gently rolling topography underlain by London Clay but influenced by the superficial river terrace gravels, deposited by the prehistoric River Thames. The land cover consists of woodlands in the north-west of the area that extend outside of the borough into Havering, forming part of the Belhus Woods Country Park, extensive areas of mineral workings of predominantly sand and gravel and the historic parkland of Belhus Park. This is against a backdrop of agricultural fields used for rough grazing, cereals and horticultural crops.
- C1.2 At a strategic scale, the Thames Chase Project covers the area, continuing west into the landscape surrounding the London/Essex border.
- C1.3 There is one character area associated with the 'Farmed River Terrace Gravels' character type:
- **LCA C1: Belhus Farmed River Terrace Gravels**

LCA C1: Belhus Farmed River Terrace Gravels



Location and Boundaries

- C1.4 This character area wraps around the villages of Aveley and South Ockendon, in the north western corner of the borough. It is bordered to the east and south by **A1 Bulphan Fenland** and **B1 Mar Dyke River Valley**. To the north and west the character area is defined by the local authority boundary with the London Borough of Havering. This area, and the area to the west and north forms part of the Thames Chase Project¹

¹ The Thames Chase Community Forest covers 40 square miles of countryside around the London/Essex borders. It is an initiative that aims to improve and restore the landscape for leisure and pleasure, focussed on woodland planting. See <http://www.thameschase.org.uk/about-thames-chase/thames-chase-plan>

Photos



Lakes and woodland at Kennington Park provide an attractive recreational open space for nearby local communities including residents of Aveley. The lakes are former gravel pits which are now fishing lakes.



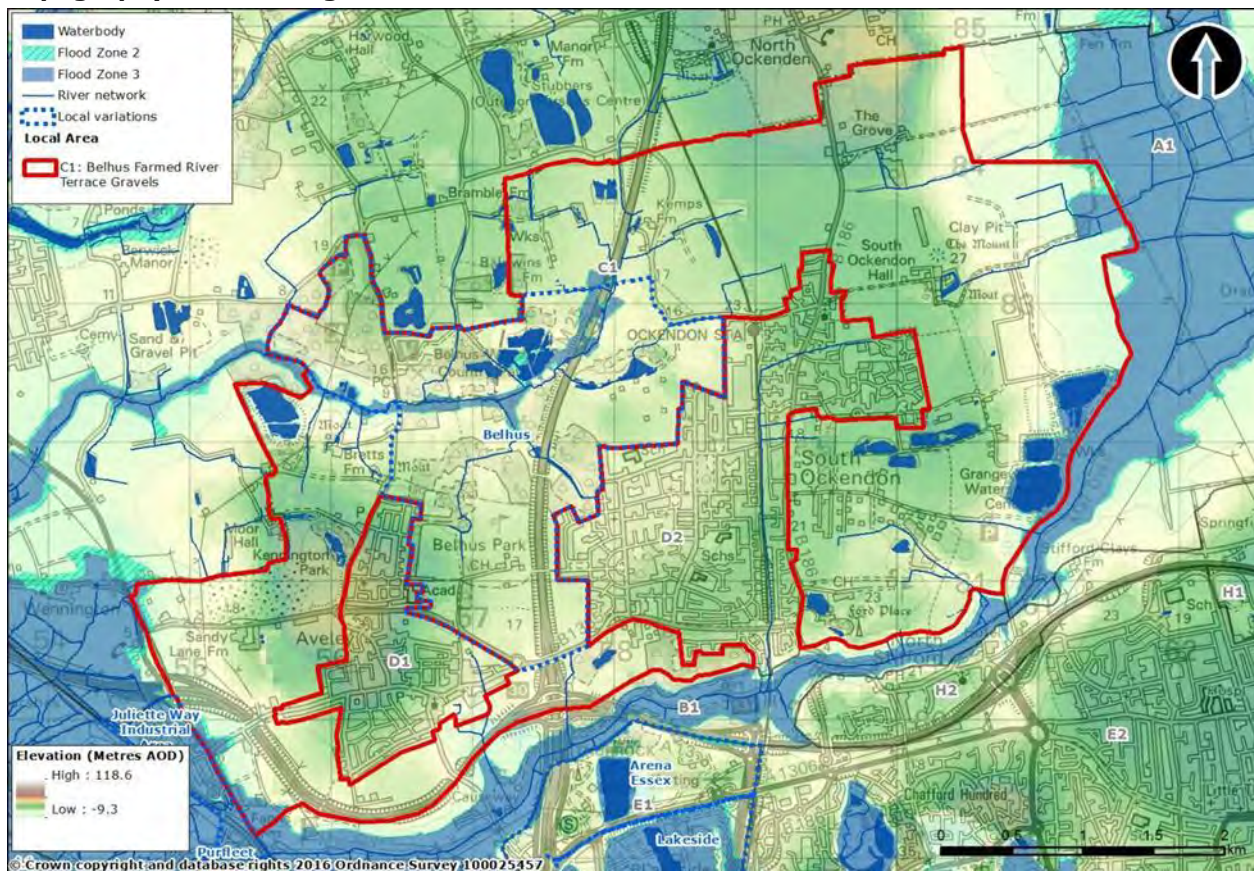
Grangewaters Country Park and outdoor education centre has woodland, open grassland, lakes and activity areas. The lakes occupy former clay pits.

(Image Copyright Ron Poulter 07931 94082).

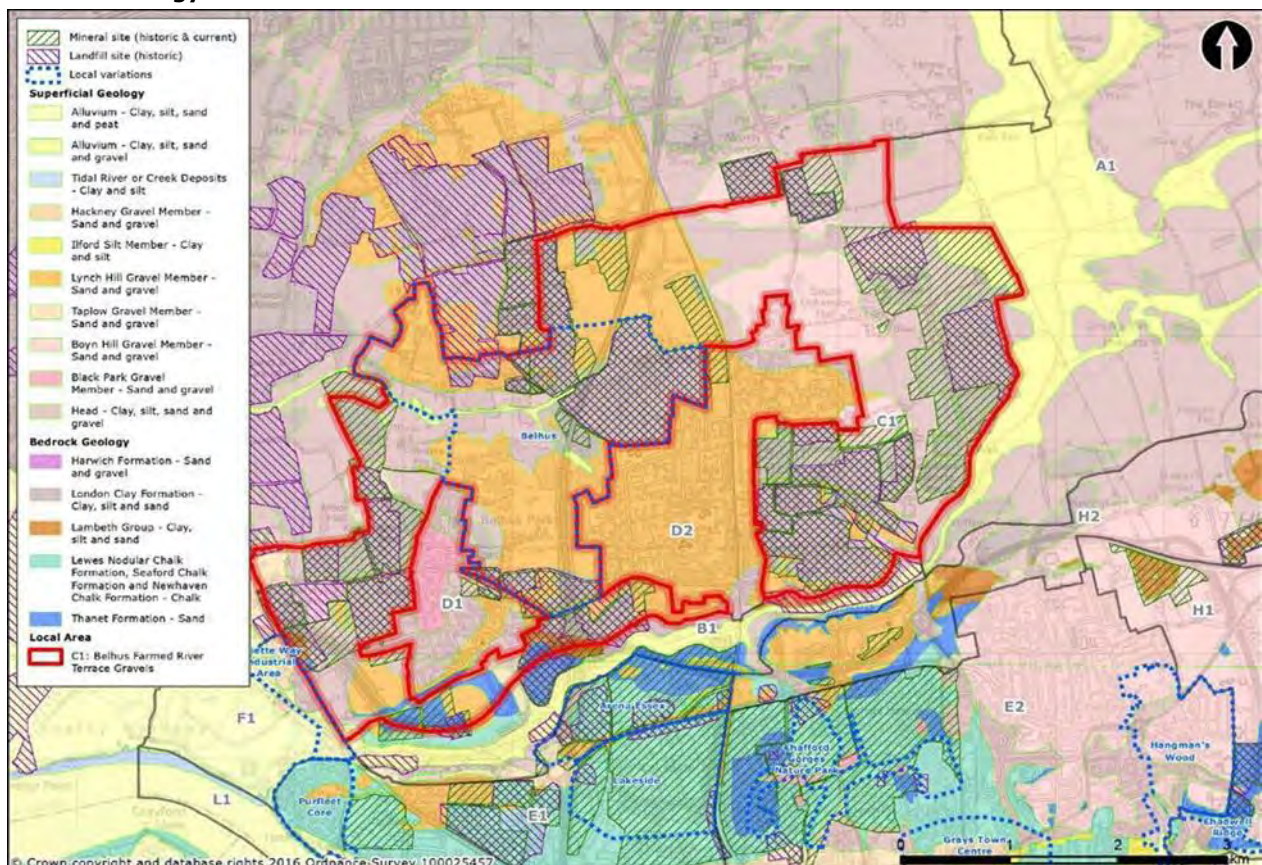


Farmland at the eastern edge of South Ockendon (some houses at the edge of the town are visible in the left of the picture). A property on Hall Lane is visible in the distance.

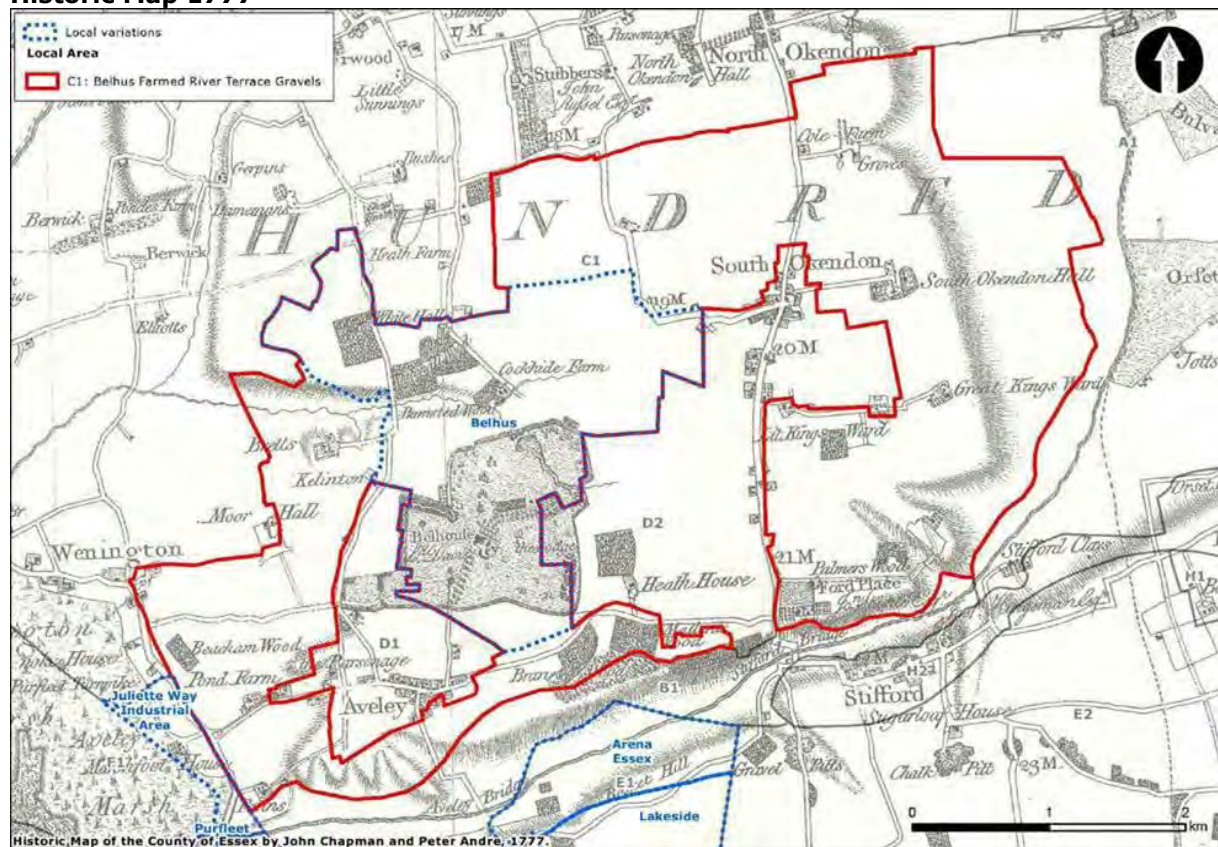
Topography and Drainage



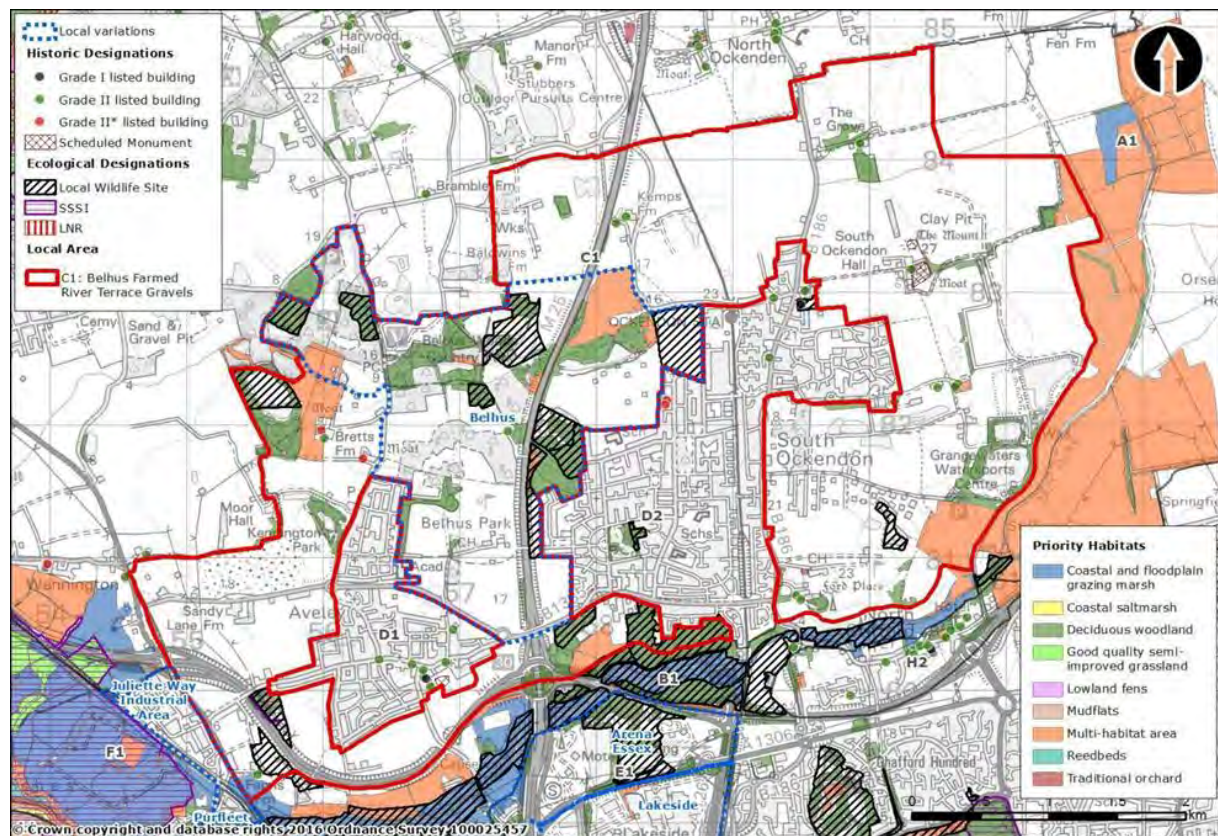
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- C1.5 This area is a mixture of woodlands in the north-west of the area that extend outside of the borough into Havering, and extensive areas of mineral workings of clay, sand and gravel, some of which have been restored, and agricultural fields used for rough grazing, cereals and horticultural crops. It contains some areas of rural landscape, and the well-wooded Belhus area forms a distinctive area within it.

Key Characteristics

- C1.6 Low lying gently rolling landscape comprising London Clay overlain by sands and gravels which have made it a focus for quarrying of clay and aggregate and for subsequent landfill. Relatively fertile soils support arable farmland, particularly in the north east part of the area.
- Concentration of lakes created by former quarry sites and clay pits and narrow stream valleys such as Running Water Brook.
 - Wooded character, including ancient woodland in Belhus Park and Belhus Woods Country Park as well as recent tree planting associated with the Thames Chase Project.
 - Individual farmsteads and barns of locally sourced red brick, many of them historic. Listed manors, some of which developed into country houses with landscaped parks in the 17th and 18th centuries.
 - Rich in archaeological finds and potential archaeology, buried in Ice Age deposits tunnelled into the London Clay – site of the famous 'Aveley Elephants'.
 - Narrow lanes, whose sense of history and aesthetic quality is often blighted by fly tipping.
 - Fragmented character with a sense of intrusion from mineral extraction sites, landfill and infrastructure.

Components that Contribute to Character

Landscape Component	Description
Geology	Primarily London Clay, with bands of Lambeth Group – sand silt and clay – and Thanet Formation – sand – in the south western part of the area, south of Aveley. Superficial river terrace deposits of clay, silt and sands and gravels overlay much of the area, deposited by a prehistoric River Thames.
Topography	A low lying, gently rolling landscape lying slightly above the surrounding Mar Dyke valley to the east and south. Ranging from 10m AOD to 35m AOD.
Hydrology	Water is a common feature throughout the landscape. The Mar Dyke river valley surrounds the area to the east and south and small streams drain into it. Running Water Brook runs through the north of the Belhus area and drains west into the Thames south of Havering. Various lakes occupy restored mineral workings.
Soils	Fine loamy drifts over sandy material affected by high groundwater, or slowly permeable seasonally waterlogged fine loamy over clayey soils. These give rise to excellent quality agricultural land, mainly cultivated for winter cereals with short term grassland. Across much of the area, including most of the western part of the area, the land has been excavated for sand and gravel and for clay for brickmaking.
Land Use	Rough grazing, woodland (mainly in the north of the area), restored mineral workings including lakes (recreational and wildlife), arable farmland, golf courses, Belhus Park and Belhus Country Park, Grangewaters Country Park, Kennington Park, major road infrastructure including the M25 which bisects Belhus Park, industrial, Travelling Show Peoples' site, landfill site.
Land Cover and Biodiversity	Land cover is predominantly human-influenced. Some important blocks of ancient woodland including Belhus Woods Country Park/ Belhus Chase contains oak and ash plantations with London Planes of interest and ancient coppice woodland. There are a number of local wildlife sites – predominantly designated for deciduous woodland as well as a series of lakes that are past gravel extraction sites. Belhus Lakes Wildlife Site for example, have a population of Little Ringed Plover, a rare breeding bird in Essex, as well as good developing reed beds and a marginal vegetation and fringed by wet woodland of wet willow, alder and water-lily in the open water.
Settlement Pattern/ Form	There is very little settlement within the character area, with the exception of the Travelling Show people's site at Buckles Lane. The remainder of the settlement comprises individual historic farmsteads or converted farms. Settlement is concentrated in the villages of Aveley and South Ockendon – (see LCT D: Villages on River Terrace Gravels).
Building Style	Historic buildings are individual farm houses, red brick barns and country houses dating to the 14th – 19th centuries. Timber-framed, weather boarded and plastered houses of two storeys are typical of the local vernacular. Gabled or hipped roofs of red plain tiles or grey slate. Red and brown brick are common materials.
Historic Landscape and Time Depth	The famous prehistoric 'Aveley Elephants', now in the Natural History Museum in London, were uncovered in clay pits of the Tunnel Portland Cement works north of Sandy Lane in 1964. The remains of a woolly mammoth dated around 200,000 years ago and the Straight Tusked Elephant were discovered in Ice Age deposits tunnelled into the London Clay. The pit has since been infilled and is now a landfill site. Extraction of gravel, chalk and clay was a key industry from the 17th century in and around Aveley and there were brickfields in Belhus park. London Clay has been worked in the area east of South Ockendon to supply the cement works in Grays. Once an agricultural landscape with small settlements often associated with historic manors in the area. The landscape contains a number of parkland remnants from Anglo-Saxon and Medieval manors. These were subsequently developed into country houses with landscaped grounds in the 17th and 18th centuries. Belhus Park includes 19th century parkland and some 18th century remnants of the Capability Brown designed landscape, including an (overgrown) shrubbery and pond. The Belhus Woods Country Park contains ancient woodland and takes in woodlands including Running Water Wood, an ancient woodland which is still managed by coppicing. The HLC shows some very small pockets of pre-18th century enclosure which is very rare in this part of Essex, although most of the fields have been replaced by post 1950s boundary loss,

Landscape Component	Description
	20th century agriculture and mineral extraction. A number of the farmsteads are designated listed buildings, indicating their time depth and the previous agricultural character of the majority of the landscape. There is a Scheduled Monument at South Ockendon Hall, marking Roman earthen barrows and a Scheduled Monument marking the gatehouse and moat of South Ockendon Old Hall.
Cultural Associations	The name Belhus derived from 14th Century tenants of the manor who, according to Morant, came from Ramsden Bellhouse². Capability Brown was commissioned to remodel the grounds of the estate between 1753 and 1763. Belhus is illustrated in Peacock's Polite Repository for 1807, suggesting that Repton may have given some advice there. Today the house is in local authority ownership. There is place name evidence of the historic nature of the landscape in the area, with a number of Saxon place names relating to low lying marshy land, including 'Fanns Farm' in the south west of the area, ('fann' meant 'low marshy land'). Saxon names include Ockendon, Stifford.
Scenic Qualities	The wooded character of the landscape around Belhus and Kennington Park, Brannett's Wood and Hangman's Wood has strong scenic qualities. There is also visual interest of historic buildings and interesting textures of the traditional brick materials. Elsewhere in the character area the scenic qualities are diminished by visual detractors such as infrastructure - the M25 and A13 (outside the character area to the south) visible on viaducts as they cross the valley, poorly restored mineral workings and derelict land which result in a sense of discordance and disturbance.
Perceptual Qualities	Infrastructure and industry have a prominent effect on the experience of this landscape and therefore the sense of rurality is compromised by the intrusion of industry, current and past mineral extraction, road noise, pylons and development. Some narrow historic lanes cross through the area but are often blighted by fly-tipping. However, the wooded character and more intact or restored landscapes have a surprising sense of peacefulness despite their relative proximity to built-up areas, with areas around Kennington Park and Belhus for example, feeling more rural, enclosed and intimate in character.
Visual Character and Views	Views are generally short to mid-range, limited by the rolling landscape, hedges or woodland. Views within the wooded areas are intimate and enclosed.
Landmarks and Skylines	Skylines are not distinctive within the character area itself. However, the areas of woodland form the backdrop to many of the views from the adjacent towns of Aveley and South Ockendon.
Landscape Function and Green Infrastructure	Refer to the Thames Chase Plan³. This area contains a significant amount of open space – particularly woodlands and parklands which play an important function for recreation for the local communities and setting to the adjacent settlements of Aveley and South Ockendon. The open, undeveloped landscape south of Aveley contributes towards the sense of a gap, in combination with the Mardyke valley, between the developed areas of Aveley and the Purfleet/ West Thurrock conurbation to the south.

Local Variations in Character

C1.7 Localised areas which vary in character have been identified as follows:

Belhus

C1.8 The area comprising Belhus Park Grade II Registered Park and Garden and Belhus Woods Country Park has a character distinct from the wider character area due to its more wooded character, historic parkland and areas of open space including ancient coppice woodlands, open grassland lakes and accessible path network.

² <https://historicengland.org.uk/listing/the-list/list-entry/1000738>

³ http://www.thameschase.org.uk/uploads/TCP_Full.pdf

Character Evaluation

Landscape Quality/ Condition

- C1.9 The area suffers from visual intrusion of the adjacent urban edges of Aveley and South Ockendon, with buildings often dominating the skyline within the open landscape and residential and industrial development poorly integrated into the landscape with abrupt straight edges of uniform housing. Agricultural areas have some gappy hedgerows and there are poorly maintained areas of land and public footpaths.
- C1.10 Previous extraction of sand, gravel and clays has left a detrimental legacy on this landscape – fencing, signage, concrete block barriers, erosion of rural lanes, fly tipping and extensive areas of active landfilling. Much of the land is poorly restored and the landscape has been fragmented so that the historic qualities are hidden by more recent land use.
- C1.11 However, the area around Belhus is more intact with well-maintained footpaths, signage, well-managed hedgerows and woodland.

Past change

- C1.12 As stated above, past mineral extraction has left a prominent mark on the landscape in the form of poorly restored landscapes with young, scrubby planting, partly restored landscapes including lakes, and active landfill sites. Some woodland planting has occurred as part of the Thames Chase Community Forest initiative. Landfill sites have altered the topography of the area.

Key sensitivities and valued attributes

- C1.13 The value of some features is recognised through designations, such as listed buildings, Scheduled Monuments and Local Wildlife Sites. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- Undeveloped areas and areas that have not been exploited for extraction that are valued for the potential for further archaeological finds and the historic dimension to the landscape that may be uncovered.
 - Blocks of woodland adjacent to the western edge of South Ockendon such as Hangman's Wood, Brannett's Wood and Oak Wood which provide multifunctional benefits including wildlife habitats and a soft edge within the landscape setting and a historic reminder of the past extent of Belhus Park.
 - Watercourses including Running Water Brook and lakes (the result of restored gravel pits) which are valued for their ability to support wildlife habitats.
 - Country Parks – including Belhus Woods and Grangewaters – which provide attractive accessible countryside on the doorstep for local populations.
 - Belhus Park and Kennington Park and their parkland features, valued for their historic time depth and the recreational and setting function they provides to the nearby settlements of Aveley and South Ockendon.
 - Rural lanes which are valued for their historic time depth and are sensitive to change due to the already fragmented state of the historic landscape.
 - Historic/ listed buildings including historic farmsteads, manors and country houses which provide a sense of history and aesthetic appeal.
 - Parkland remnants from Anglo-Saxon and Medieval manors.

- Historic landscape patterns such as pre-18th century enclosures that are highly valued for their sense of history and reminder of the landscape prior to gravel and mineral extraction. They are sensitive to change due to the already fragmented state of the historic landscape.
- The open, undeveloped landscape south of Aveley, which contributes towards the sense of a gap, in combination with the Mardyke valley, between the developed areas of Aveley and the Purfleet/ West Thurrock conurbation to the south.

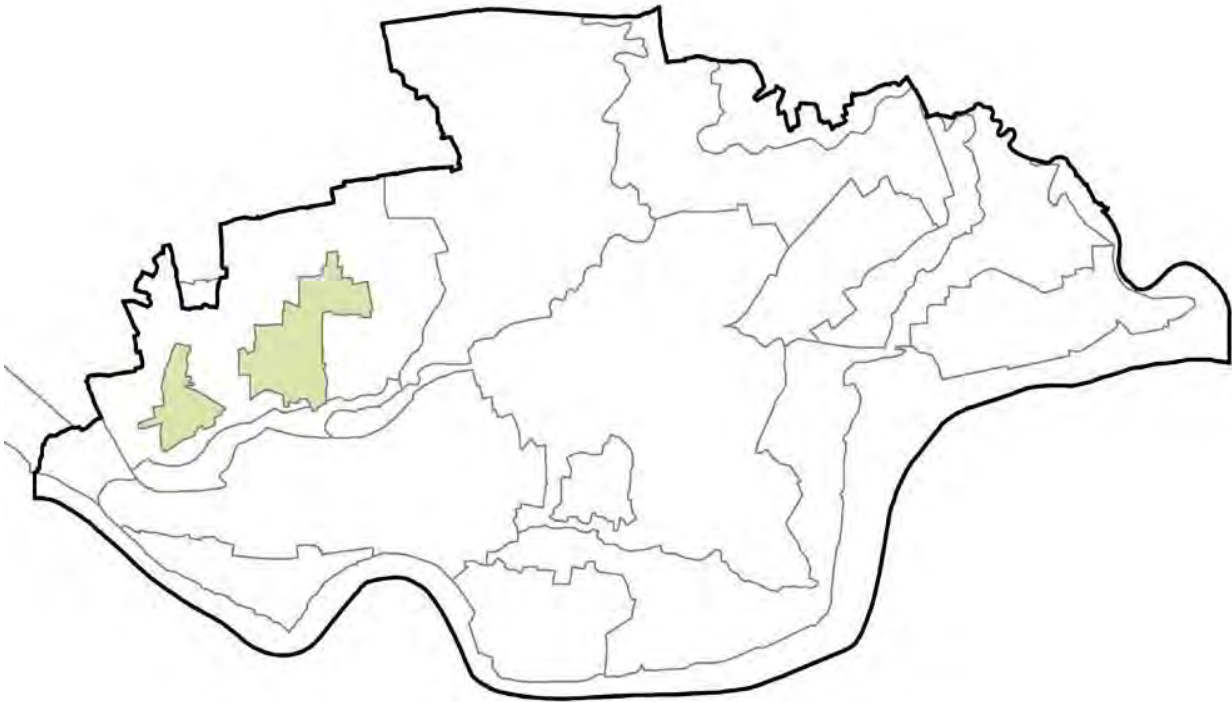
Vision

The vision for this character area is: a well-managed and high quality rural landscape comprising a mosaic of farmland with an intact hedgerow network and historic buildings, parklands, woodlands and restored minerals sites rich in wildlife, all of which provide a breathing space for surrounding populations and opportunities for outdoor recreation.

Guidance to conserve and enhance character

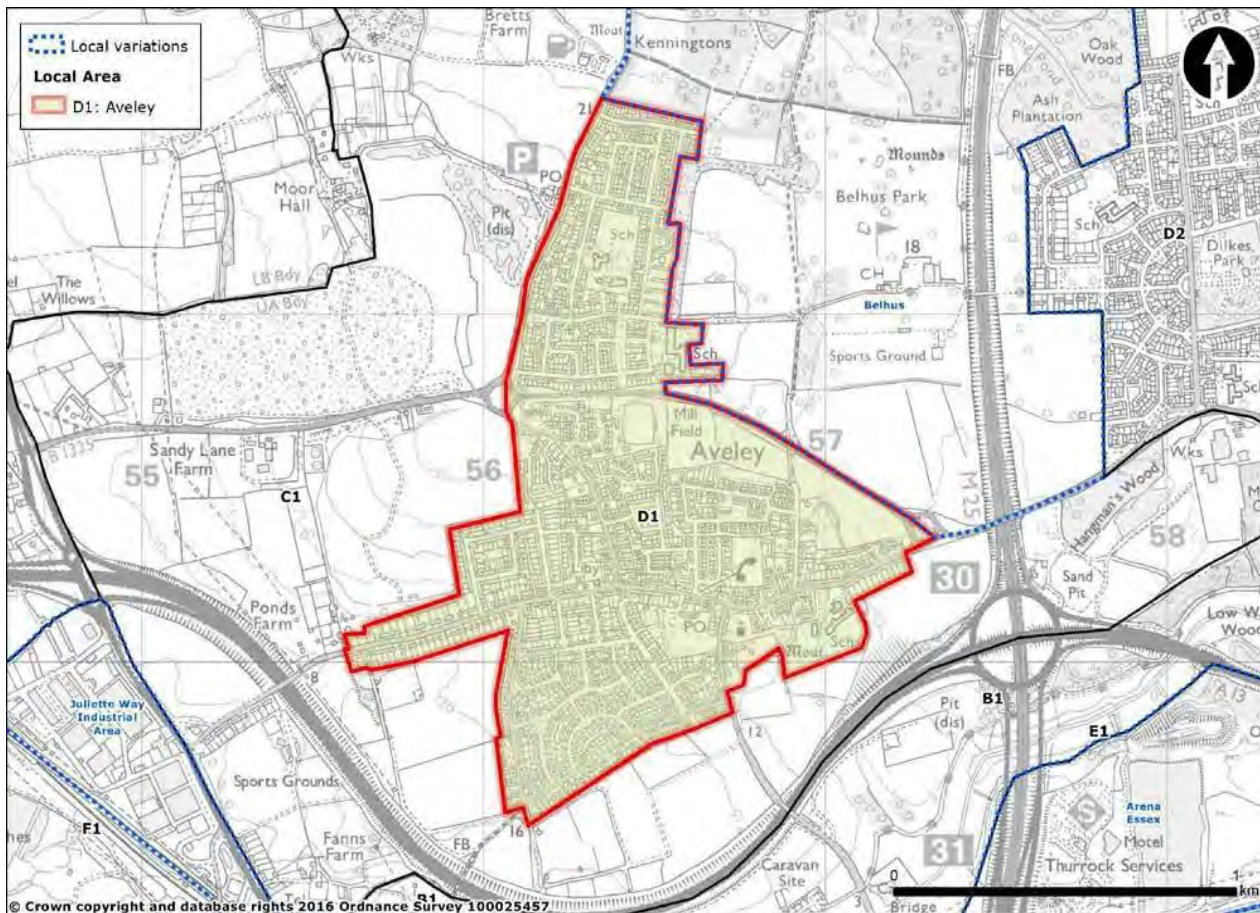
- Preserve and enhance the rural character of the area as a setting to Aveley and South Ockendon – consider whether existing land uses such the Travelling Show People's Site outside South Ockendon can be better integrated into the landscape, perhaps through tree planting.
- Improve the setting and integration of South Ockendon and Aveley into the landscape by enhancing and better integrating settlement at the urban edges to complement the rural landscape with tree planting and landscaping and or the creation of new landscape parks.
- Strengthen the physical landscape structure through tree, woodland and hedgerow gapping- up and planting. Ensure planting of trees alongside watercourses reflects the wetland environment; species should include willow, alder and poplar.
- Preserve areas of pre-18th century enclosure which reveal the underlying historic landscape pattern and are now rare.
- Promote the enjoyment of the area for outdoor recreation in accordance with the Thames Chase plan, including active management of woodland and provision of new areas of open space.
- Protect and enhance parkland features, particularly in the Belhus sub-area. New features could be created in restored land fill areas.
- Protect and enhance historic farmsteads, manors and country houses and ensure that any new rural development respects the local vernacular styles and materials.
- Consider opportunities to enhance the condition and visual amenity of the landscape through removal or screening of detracting features, as well as more ambitious projects such as undergrounding of pylons.
- Restore former and current extraction sites into functioning elements of the wider landscape, ensuring design strategies respect the local character. For example, sites in this character area could be restored to agricultural land, woodland, parkland or wetland - areas close to valleys or watercourses might incorporate water meadow and pasture. Restore and promote a network of 'quiet routes' or local green links in accordance with the Green Infrastructure Plan, prioritising connections between the settlements of Aveley and South Ockendon and the countryside. Consider the creation of a strategic bridging point over the M25 within the Belhus area. Protect the character of historic rural lanes.

LCT D: Towns on River Terrace Gravels



- D1.1 This landscape type is part of the '**Aveley and South Ockendon Wooded and Farmed River Terrace Gravels**' Strategic Character Area. The Type is characterised by the settled parts of the river terrace gravels that occur on London Clay north of the River Mar Dyke: the settlements of Aveley and South Ockendon, two largely post-war urban expansion settlements.
- D1.2 There are two character areas associated with the 'Towns on River Terrace Gravels' character type:
- **LCA D1: Aveley**
 - **LCA D2: South Ockendon**

LCA D1: Aveley



Location and Boundaries

- D1.3 This character area is located in the west of Thurrock Borough and to the west of South Ockendon. It is separated from the River Thames by the urban area of Lakeside and Purfleet and the lower Mar Dyke river valley. It is surrounded by **LCA C1: Aveley & South Ockendon Farmed River Terrace Gravels**, defined by the approximate settlement boundary which closely aligns with the defined Green Belt boundary.

Photos



St Michael's Church - an attractive stone built Grade I listed building. The churchyard is a peaceful open space with high quality natural character, seen with the popular Maltings Recreation Ground behind.

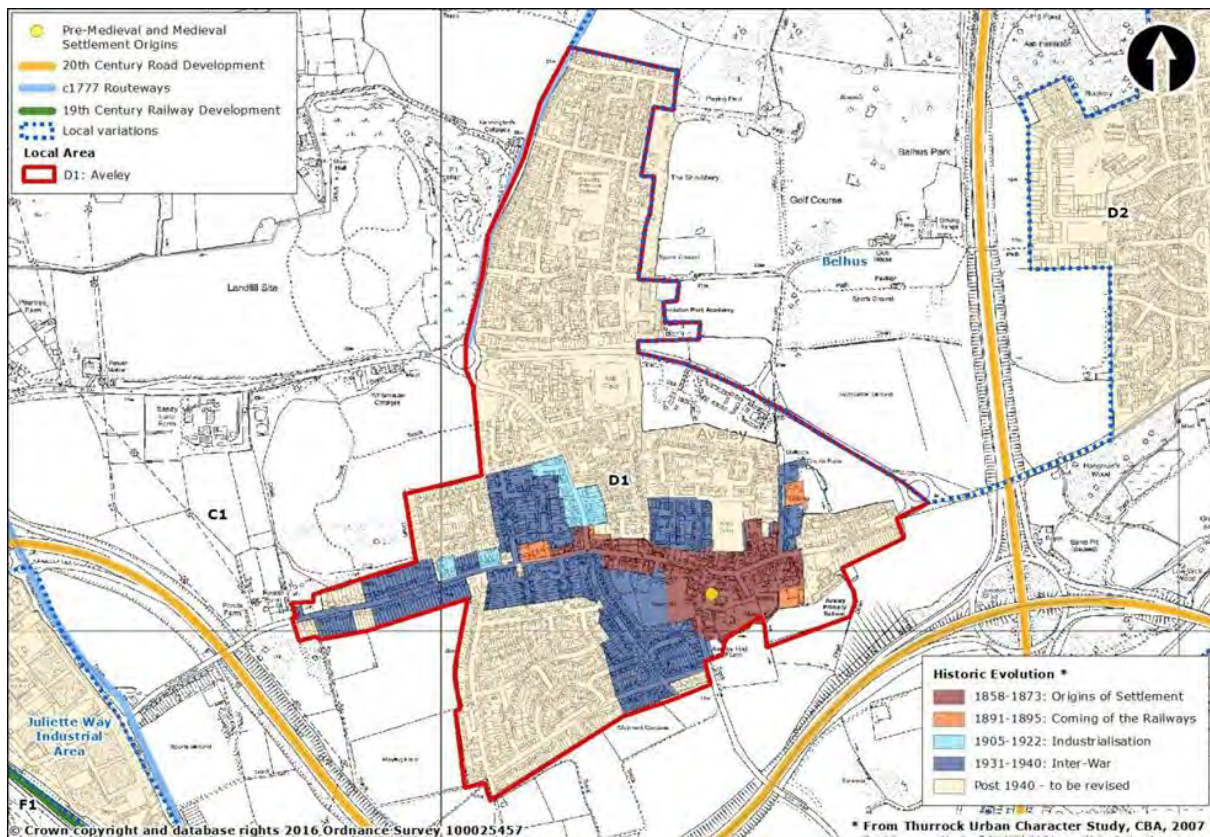


Typical early post-war housing at Hall Crescent.

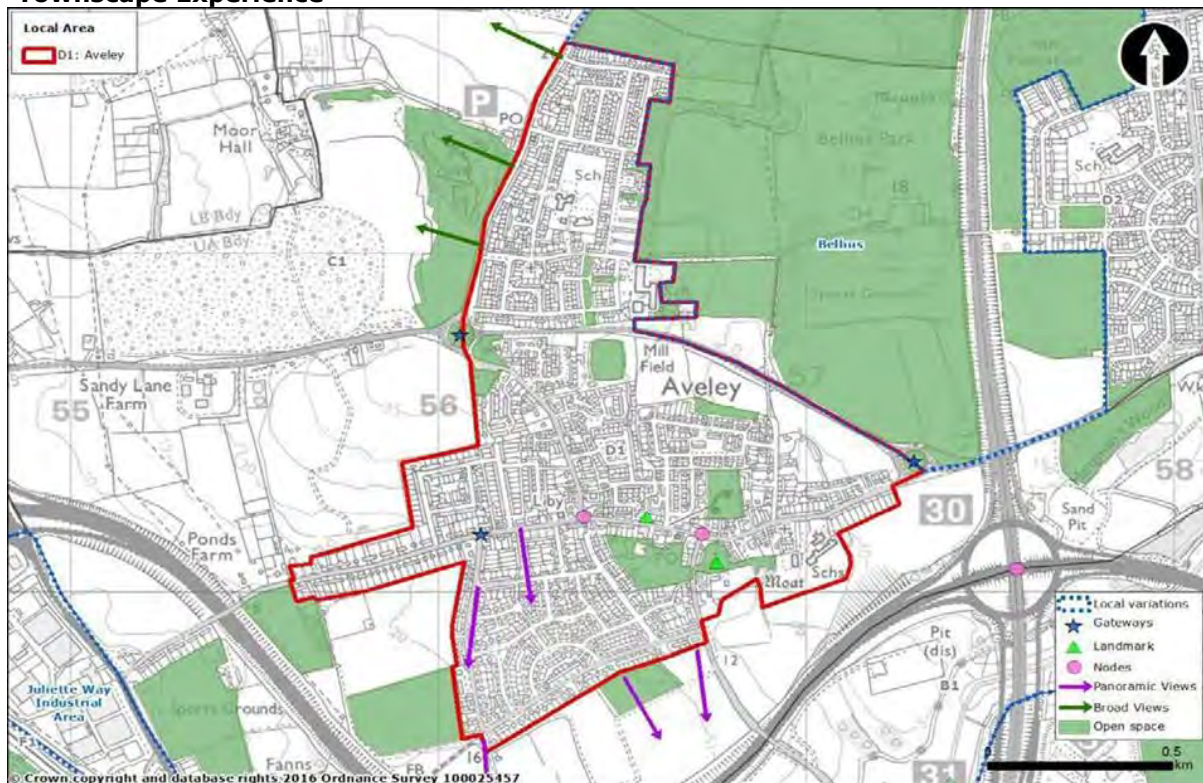


Aveley High Street with the Kings Family Centre in the foreground, an attractive local landmark building of yellow stock brick. The adjacent green space with mature Plane trees provides welcome texture and colour in contrast to the surrounding hard surfaces.

Historic Evolution



Townscape Experience



Character Description

Overview

- D1.4 Aveley is a largely post-war settlement that grew from a medieval settlement. Predominantly residential in character, access and glimpsed views to its surrounding landscape (of **LCA C1: Belhus Farmed River Terrace Gravels**) and natural open spaces within the town provide a welcome relief to a sometimes 'hard' townscape environment.

Key Characteristics

- London Clay geology overlain by sands and gravel deposits.
- Low lying, at between 10m and 35m AOD, on a ridgeline that runs northwest to southeast across the area, rising above the River Mar Dyke to the south.
- Generally a weak sense of place due to standardised suburban post-war housing and utilitarian streetscape but the green open spaces provide a welcome focus for wildlife or recreation.
- A green setting, as a result of Belhus Park and Belhus Country Park to the north, as well as the Mar Dyke valley to the south.
- A sense of history in individual features Aveley's medieval historic core at High Street with some historic buildings including St Michael's Church and 16th to 18th century houses typically timber-framed and plastered, providing visual interest. The church is a landmark and a focal node and brings a strong sense of place.
- Views to the green open spaces around the settlement, such as views to Kennington Park, Usk Road Park, Belhus woodland and across the Mardyke valley, are an important element that provide a sense of place.

Components that Contribute to Character

Landscape Component	Description
Geology	Primarily London Clay, with a band of Lambeth Group – sand silt and clay – running along the southern part of the area. Superficial head deposits of clay, silt and sand and river terrace deposits of sands and gravels.
Topography	Topography rises gently to the north of the river Mar Dyke. Height ranges from 10m AOD in the south east of the area near the Mar Dyke river valley to 35m AOD in the north west of the area at the roundabout of the B1335.
Hydrology	Two tributary streams in the far south eastern corner of the settlement flow south into the Mar Dyke River to the south of Aveley. The Mar Dyke drains into the Thames to the south west at Purfleet.
Land Cover and Biodiversity	Open spaces include allotment gardens to the south of Hall Road, the recreation ground at the Maltings and sport ground (Mill Field). The more naturalistic spaces such as the churchyard of St Michael's provide some habitats for wildlife. There are no ecological designations within the area. Smaller interstitial open spaces between buildings contain amenity grassland and occasionally mature trees such as London Planes, Willows or Oak.
Land Use	Predominantly residential land use, as well as Ormiston Park Academy and Aveley Primary School.
Settlement Form and Setting	Compact settlement. Green setting of the surrounding landscape in LCA C1: Belhus Farmed River Terrace Gravels - including Belhus Woods and Parkland to the north east and north, the open, undeveloped character of the landscape south of Stifford Road which adjoins the Mar Dyke valley and the views towards Hangman's Wood by South Ockendon. Attractive accessible countryside on the doorstep e.g. Belhus Woods Country Park, the Mar Dyke valley, Kennington Park and Grangewaters. The landscape setting to the west has less of a positive influence on character because there are fewer features of landscape interest.
Built Form and Style	Predominantly post-war suburban housing, a mixture of semi-detached and detached houses set around crescents and cul-de-sacs. Some post-1960s housing estates around Rowan Grove characterised by red or beige brickwork. Mix of architectural ages and styles on High Street, with some historic buildings dating from the 12th century (St Michael's Church) and 16th to 18th century houses which are typically timber-framed and plastered. High Street has a human scale and good sense of enclosure by the parade of shops although buildings and public realm are in need of regeneration, and large areas of hard surface limit its visual interest. Low density of development with wide streets. Local vernacular includes yellow/ brown/ red London stock brick, occasional use of stone (e.g. boundary walls and St Michael's Church).
Sense of Place	Streetscape is predominantly utilitarian, leading to a weak sense of place. The core of the settlement on High Street has a stronger sense of place due to continuous building frontage creating a sense of enclosure, colourful shop frontages and mixed architectural ages and styles.
Connectivity	Pedestrian connections to Belhus Park from the north east and to Belhus Woods Country Park from the north. Otherwise major roads – particularly the B1335 Aveley Bypass and the A13 south of the settlement – provide major physical and visual barriers to movement. Poor connectivity between residential areas and the High Street.
Historic Landscape and Time Depth	From the 11th century Aveley was a flourishing village and had a market from the 13th – 17th century. Medieval settlement was clustered around St Michael's Church in the southeast of the area - some listed buildings, including the church, still exist and provide some historic character to this part of the area. A Scheduled Monument marks the site of a moated manor house which stood south east of the church which, in 1374 was a substantial house with a deer park. Population grew rapidly after World War II, and in 1970-1990 it more than tripled in size. This is largely owing to London County Council, which bought land to rehouse

Landscape Component	Description
	Londoners and provide labour for the riverside factories at Purfleet and West Thurrock⁴. Historically the main industry of the area was arable and pastoral farming, including peas for the London market⁵. The open fields around the village were enclosed during the 16th century, creating fields that were larger than usual for this part of Essex. There were also woodlands in the north of the area associated with the manors of Kennington's and the Belhus estate to the north east (within LCA C1: Aveley & South Ockendon Farmed River Terrace Gravels). Extraction of gravel, chalk and clay was a key industry from the 17th century in and around Aveley.
Cultural Associations	The famous 'Aveley Elephants' (200,000-year old skeletal remains of the 'Woolly Mammoth', <i>Mammuthus primigenius</i> and the 'Straight Tusked Elephant', <i>Palaeoloxodon antiquus</i>) were discovered in glacial deposits in a clay pit near Aveley (within LCA C1: Aveley & South Ockendon Farmed River Terrace Gravels).
Urban Structure	Nodes and landmarks are focussed along High Street which is the main shopping focus. Gateways at the roundabouts of the Aveley Bypass B1335 in the east and west of Aveley. The southern edge of the town at Ship Lane also forms a gateway entrance to the settlement, with houses on the edge of settlement quite visible behind a hedgerow boundary. The settlement core is the south east of the settlement on High Street, reflecting the historic core centred on St Michael's Church.
Scenic Qualities	Generally relatively poor townscape quality. Scenic qualities are generally highest in views to areas outside the character area – to Kennington Park, Belhus Park and Belhus Chase, and across the Mar Dyke river valley to the south. Views south towards the industry at the docks and towards the QE2 Bridge provide visual interest. Colours are often grey/ brown as a result of a lot of hard surfaces although occasional mature trees provide texture, movement and colour. Lack of visual interest along residential streets.
Perceptual Qualities	High Street has a busy character, largely as a result of traffic. The churchyard at St Michael's has a natural, peaceful character. Vehicles are overly dominant as a result of uncontrolled parking on verges and other pieces of land, which in combination with clutter in the public realm (signs, different surface treatments, pedestrian guard rails etc.) gives a sense of discordance.
Visual Character and Views	Views south from the south of Aveley (e.g. along north-south orientated residential streets such as Hall Avenue, and at junctions with these streets on Purfleet Road) to the power station landmark, QE2 Bridge and industry around Purfleet provides interest and a sense of place although pylons are detracting features. There are occasional views to the green space to the south including the area around the Mar Dyke river valley. Glimpsed views along residential streets around the edges of the town to nearby open spaces provide important sense of place and character. E.g. views to Kennington Park and Usk Road Park from the northern edges of Aveley and from the Rowan Grove area; views east to Belhus woodland.
Landmarks and Skylines	Notable landmarks are St Michael's Church and the King's Family Centre on High Street.

⁴ <http://www.british-history.ac.uk/>

⁵ <http://www.british-history.ac.uk/>

Character Evaluation

Quality/ Condition

- D1.5 Overall the quality and condition of the townscape in Aveley is relatively poor and in need of management. Utilitarian streetscapes are often cluttered by parking and incoherent signage and street furniture and discordant in style. There is generally a weak character and sense of place within residential areas with utilitarian built character, poor legibility and connectivity as the Aveley bypass creates a major visual and physical barrier to movement.
- D1.6 Open spaces and intermittent areas of landscape could be better maintained – including grass verges which are often used for vehicle parking. Poor quality and decaying building facades and boundary fences create a perception of poor maintenance and neglect. Bright high street signage and street clutter creates a sense of discordance.
- D1.7 Some sense of place is provided through the historic buildings within the historic core of the settlement and the proximity to several open spaces at the edges of the settlement such as Kennington Park, Belhus Park and Belhus Chase.

Past change

- D1.8 In this area there has been rapid residential expansion which has led to large areas of the same post-war character. The Aveley Bypass has created a major barrier through the centre of the area. There has been a decline in the condition of the historic core as well as other parts of the settlement.

Key sensitivities and valued attributes

- D1.9 The value of some features is recognised through designations, such as a Scheduled Monument and a few Listed Buildings. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- Historic core including buildings such as St. Michael's Church which lend a strong sense of place, diversity of building style and a sense of time depth;
 - Local vernacular architecture (including timber-framed buildings) which contributes a sense to place to the otherwise generic townscape;
 - Mature trees and open spaces in good condition a
 - re valued in the context of much of the area covered in hard surfaces. Mature trees provide a welcome relief in terms of shade, shelter, wildlife and visual interest.
 - The green and rural setting provided by Belhus Park, Kennington Park and the Mar Dyke valley which provide a sense of place and recreational amenity.
 - Parkland remnants from Anglo-Saxon and Medieval manors.
 - Historic landscape patterns such as pre-18th century enclosures that are highly valued for their sense of history and reminder of the landscape prior to gravel and mineral extraction. They are sensitive to change due to the already fragmented state of the historic landscape.
 - The open, undeveloped landscape south of Aveley, which contributes towards the sense of a gap, in combination with the Mardyke valley, between the developed areas of Aveley and the Purfleet/ West Thurrock conurbation to the south

Vision

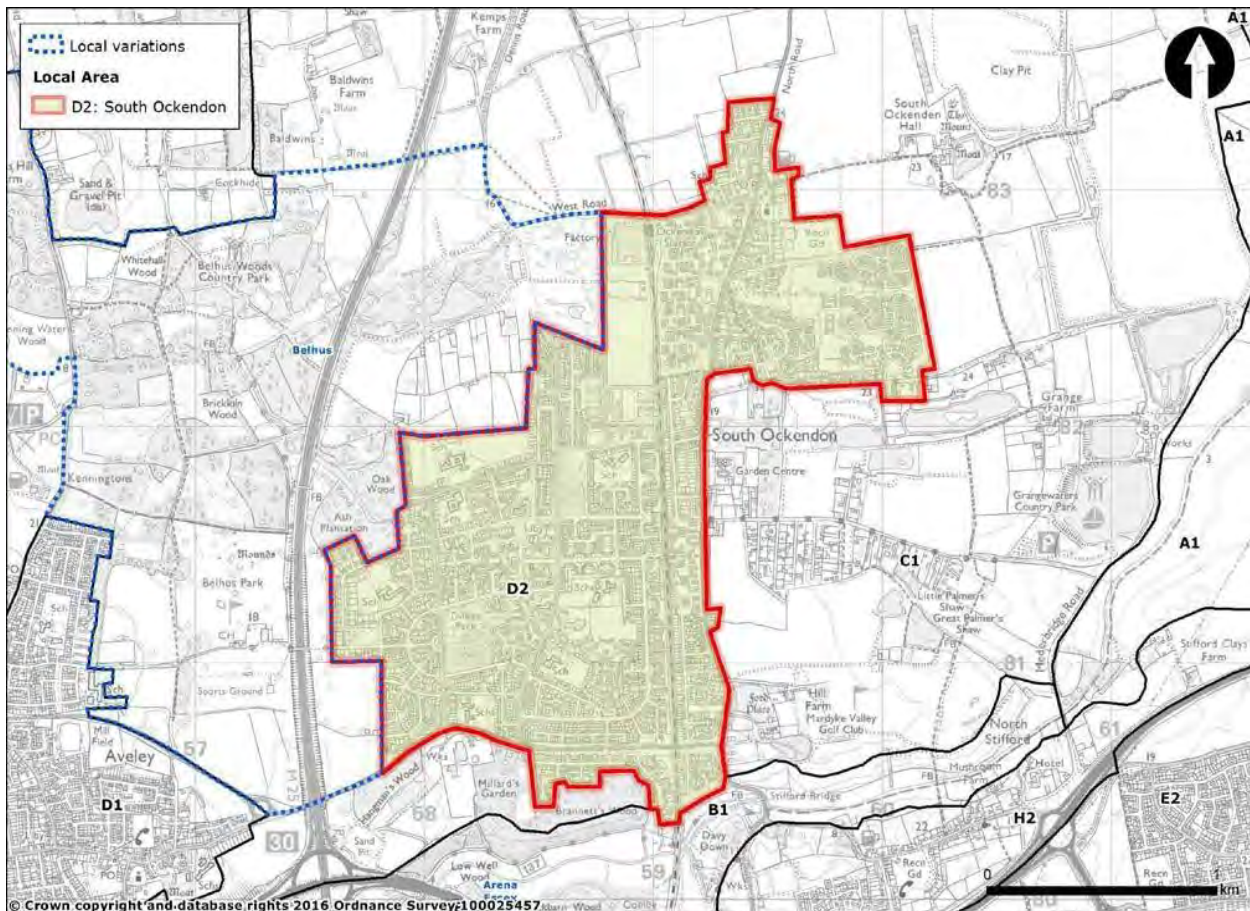
The vision for this character area is: a place with an enhanced sense of character as a result of high quality buildings and public realm with strong and legible connections to the High Street, new vibrant centres, and with open spaces within and outside the village. A settlement that retains its compact form by rejuvenating existing plots and using existing or new nodes to focus development. Biodiverse green spaces of a range of sizes will provide a diversity of functions and visual amenity, including street tree planting, green verges rich in wildlife and spaces for community interaction.

Guidance to conserve and enhance character

D1.10 The **Thurrock Design Strategy SPD, 2016** should be read alongside this guidance.

- Improve pedestrian connections within the town and connections to recreational open spaces at the edges of Aveley - such as Kennington Park, Belhus Park, Belhus Chase, Usk Road Park and the Mar Dyke river valley; improve signage to open spaces.
- Retain views to the surrounding landscape including the wooded character of Kennington
- Park and Belhus Park, and the open, undeveloped character of Mar Dyke valley to enhance sense of place. Enhance the landscape setting to the west of the settlement.
- Improve the quality of built features and public realm e.g. paving, materials, coherent signage, furniture and style and planting of street trees using a master planning approach for regeneration of local areas – particularly the High Street.
- Enhance the condition of existing buildings and seek opportunities to create new vibrant centres.
- Ensure any new built development enhances local identity through its design and materials, which may include higher density development in newly created neighbourhood centres.
- Improve management to enhance biodiversity in existing open spaces.
- Ensure new development at settlement edges reflects the more rural character of the landscape setting through sensitive design of elements such as incorporating green infrastructure, reducing density of layout and appropriate materials and boundary treatment.
- Enhance the features of local interest and sense of history on High Street e.g. through appropriate scale, form, layout, materials and signage of new development; encourage refurbishment of existing facades of buildings.

LCA D2: South Ockendon



Location and Boundaries

- D1.11 This character area is located in the west of Thurrock Borough and to the east of Aveley. It is separated from the River Thames by the urban area of Lakeside and Purfleet and the lower Mar Dyke river valley. It is surrounded by **LCA C1: Aveley & South Ockendon Farmed River Terrace Gravels**, defined by the approximate settlement boundary which closely aligns with the defined Green Belt boundary.

Photos



The Grade I listed Church of St Nicholas forms a distinctive landmark with its distinctive round tower, at South Road, in the north of the town close to Ockendon Green.

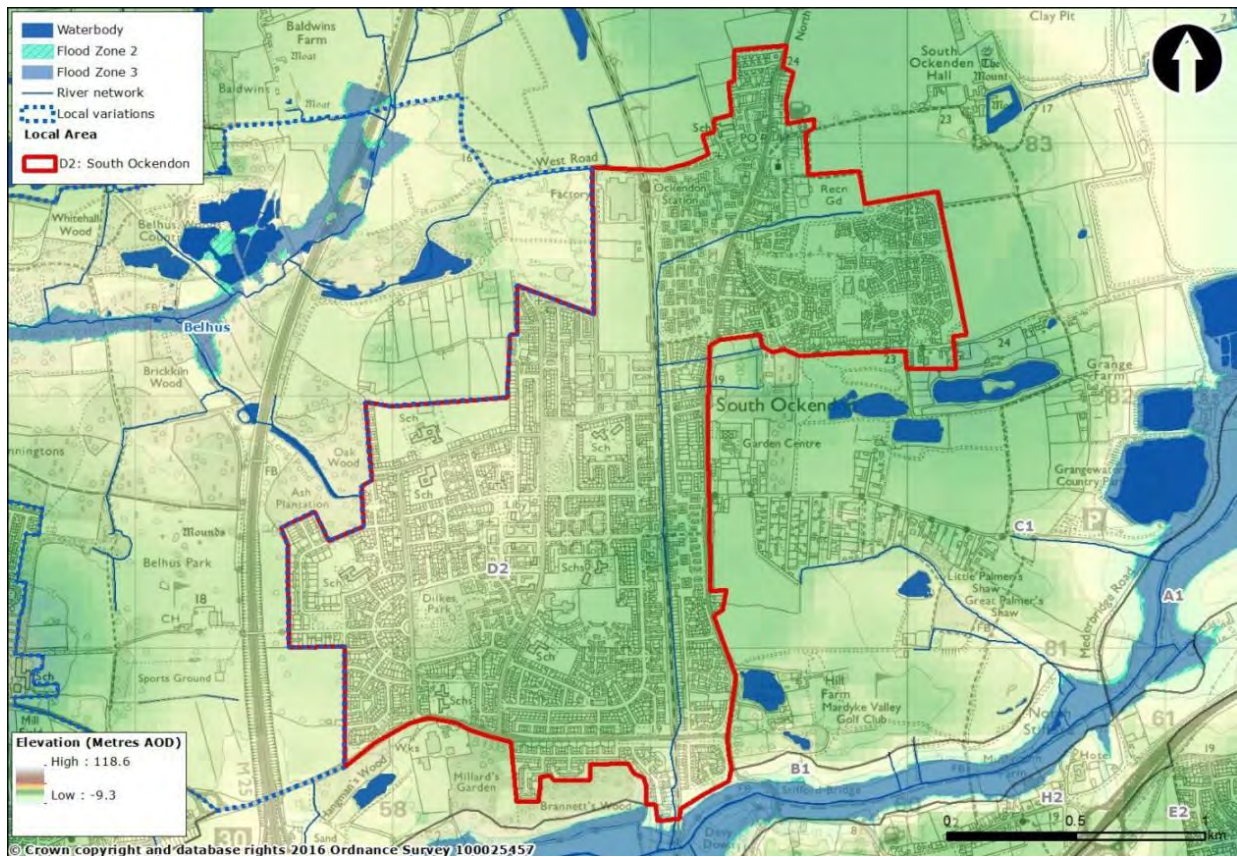


Typical residential estate Faymore Gardens. The mature trees behind are in Dilkes Park/ Little Dilkes Wood, and add visual interest and texture to the streetscape.

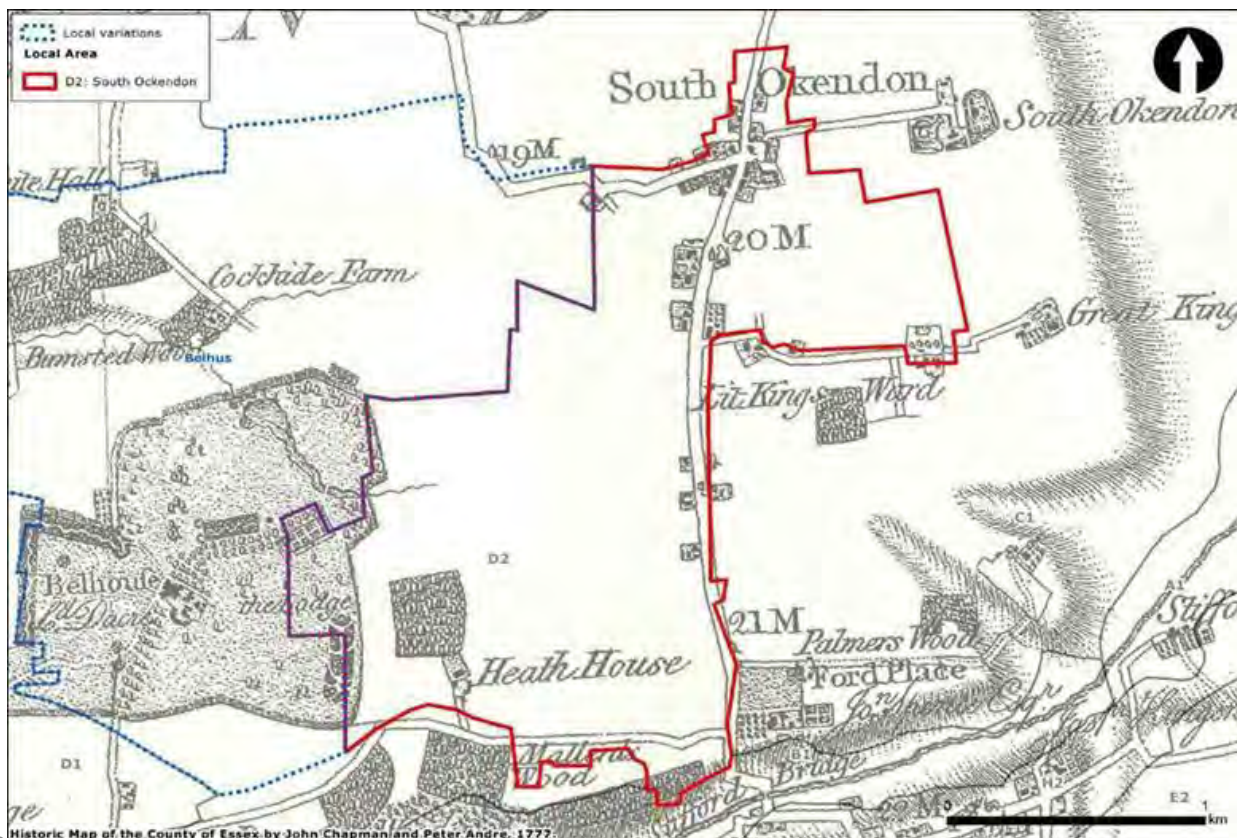


The pedestrianised shopping centre at the Derwent Parade. The pitched roof pattern of the building at the end of the parade creates visual interest in an otherwise harsh streetscape.

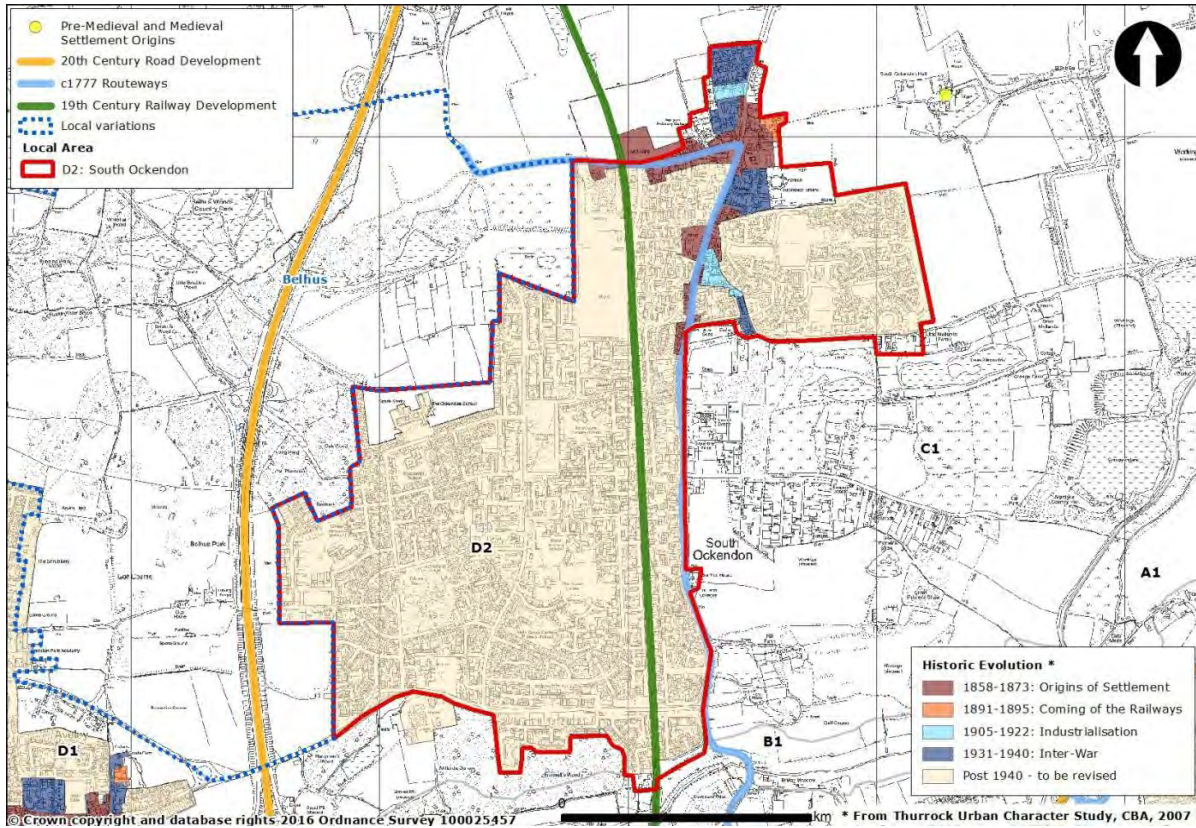
Topography and Drainage



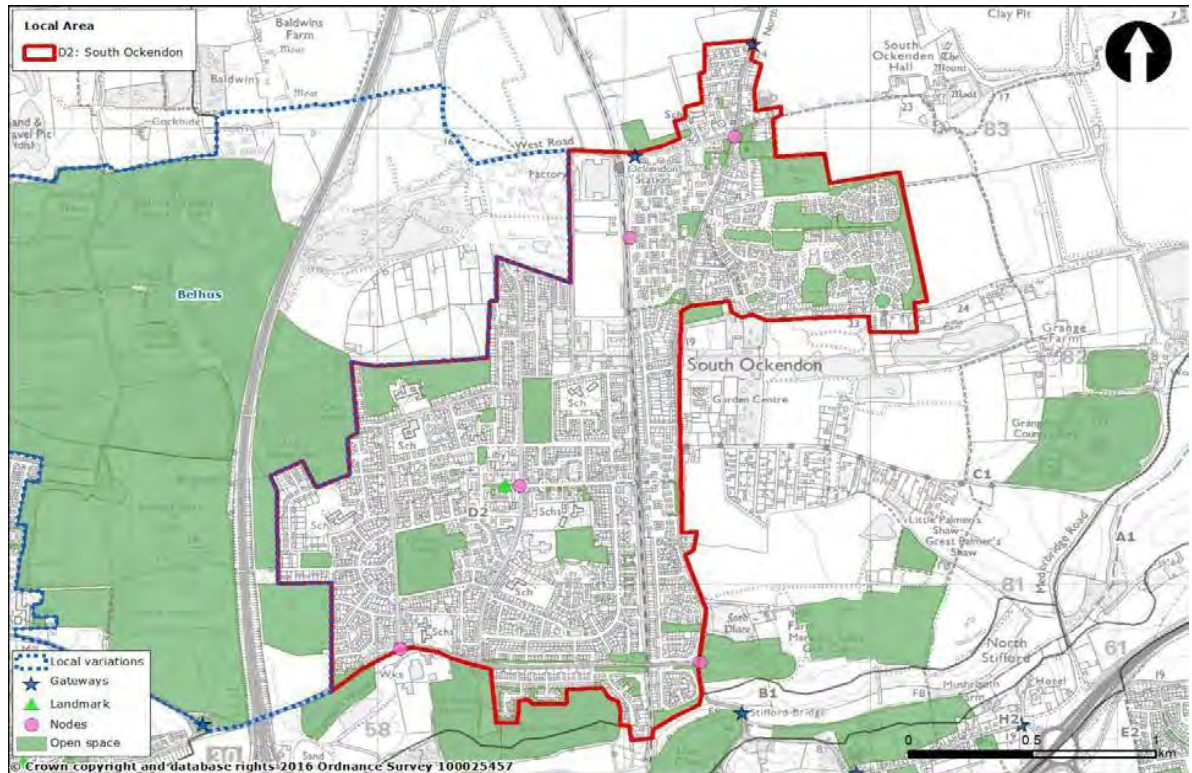
Historic



Historic Evolution



Townscape Experience



Character Description

Overview

- D1.12 A post war urban expansion community centred on a historic hamlet between the upper Mar Dyke and the historic landscape of Belhus Park.

Key Characteristics

- London Clay geology overlain by sands and gravel deposits has given rise to mineral workings around South Ockendon, many of which have been partly restored.
- Low lying, relatively flat topography at between 10m and 20mAOD.
- A dominance of post-war housing estates and utilitarian streetscape with little sense of place but interspersed with some high quality open spaces such as Dilkes Park.
- A variety of layouts including post-war rectilinear streets, crescents, and cul de sacs with semi-detached, detached and terraced houses.
- Includes 1940s 'pre-fab' houses to accommodate bombed-out residents of East London and West Essex, reported as having been built by Prisoners of War.
- Materials in post war areas are typically pre-fabricated and mass-produced although older buildings use local materials such as red brick and clay roof tiles (white render is also typical).
- A green setting, as a result of Belhus Park to the west and the Mar Dyke valley to the south.
- South Ockendon's historic core centred on the village green which, along with St Nicholas Church, the Royal Oak, the war memorial and historic buildings, has a strong sense of place and history.
- Local vernacular of red tiled roofs, red brick and timber-framed buildings with painted plastered walls.
- The distinctive round towered church of St Nicholas (the only one remaining in Thurrock) forms a distinctive landmark.
- There are attractive views across the village green to the church and other historic buildings.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock geology consists of London Clay. Superficial deposits of sands and gravels of the Lynch Hill Gravel Member overlie the London Clay, formed by historic river terrace deposits and subsequent erosion of the floodplain over millions of years.
Topography	Relatively flat, low lying land between 10m to 20m AOD that falls gently away to the south towards the Mar Dyke river valley.
Hydrology	The Mar Dyke river valley lies to the south of the village.
Land Cover and Biodiversity	Little Dilkes Wood contains a remnant of ancient woodland (formerly part of a larger ancient wood on the site of the park), and adjacent is Dilkes Park, consisting of amenity grassland and several ancient veteran trees. South Ockendon Church in the north east of the village is a designated Local Wildlife Site with ancient grassland, of particular interest for rare plants such as Subterranean Clover. Open green spaces are well-integrated into the settlement and with adjacent buildings – such as at the Green.
Land Use	Predominantly residential with some areas of community use integrated (schools and sports centre) and pockets of open green space. A small area of commercial/ industrial land use at Ardmore Road/ Arisdale Avenue and a retail area at Derry Avenue. Pockets of green space within the residential areas include Dilkes Park, Little Dilkes Wood and Bonnygate Wood. Large expanses of Belhus Park are accessible via the footbridge.
Settlement Form and Setting	Does not have a strong settlement form but the main part of the built-up area is on the sands and gravels, which extends in the east as far as the B186. The River Mar Dyke forms the southern edge of the settlement. Attractive countryside on the doorstep e.g. Belhus Woods Country Park, the Mar Dyke valley and Grangewaters. Harsh urban edge, particularly to the north west with the industrial area and the post war housing areas in the west with the adjacent Belhus Park. Fragments of the former parkland remain in the form of Oak Wood and Ash Plantation between the urban edge and the M25. To the south, former mineral workings have left a legacy of derelict land used as rough grazing and to the east the Grange Farm landfill site dominates.
Built Form and Style	Predominantly post-war housing consisting of a mixture of semi-detached and detached houses arranged in a regular layout of rectilinear streets, crescents and cul- de-sacs. Utilitarian materials dominate. Post-1960s housing is found to the east of the railway line, usually arranged as estates of mass-produced brickwork. The Derry Avenue retail area consists of regular, blocky architecture with residential flats above shops. Occasional historic buildings survive in the north-east part of the town along South Road. Local vernacular includes timber-framed and plastered houses (e.g. Quince Tree Farmhouse dating from the early 16 th century), with gabled red plain tile roofs. Red brick is also a traditional feature of the area, and there are historic red brick walls and chimneys providing local interest at Little Belhus, which is also weather boarded. The red brick Holy Cross Church on Easington Way is not widely visible but provides local interest. The Church of St Nicholas Ockendon Green is flint rubble and has a distinctive circular tower.
Sense of Place	Strong sense of place around the historic core at North Road and the village green. Elsewhere, the utilitarian streetscape does not contribute to sense of place.
Connectivity	Generally poor connectivity within the area, including with the railway station and with Aveley to the west. Public bridleways connect the eastern edge of South Ockendon with Grangewaters Country Park along Mollands Lane and Buckles Way.
Historic Landscape and Time Depth	South Ockendon was historically a roadside hamlet, centred on the main North/ South Roads (running between Grays and Brentwood) and West Road. It is mentioned in the Domesday Book as Wokenduna. The historic core remains and is now in the north east of South Ockendon where there are some listed buildings including the Norman St Nicholas Church and the Royal Oak 17 th Century tavern. Most of the settlement today is a result of 20 th century urban expansion. This is

Landscape Component	Description
	largely owing to London County Council, which bought land to rehouse Londoners. An estate was built in the area between the railway and South Street in the 1930s which was then greatly enlarged to the west of the railway into Belhus Park ⁶ .
Cultural Associations	A mental hospital known as The Colony was converted from a previous farm at Little Mollands but was closed in 1994.
Urban Structure	A village green and churchyard in the north-east of the town reflect the historic core of South Ockendon, and is one of the main focuses of the settlement with a few shops, a war memorial (a key landmark) and pubs/ restaurants including the listed Royal Oak Inn. The primary shopping area is focussed on Derwent Parade in the centre of town. Gateways into the village exist at the edge of the settlement to the north on North Road, from the west on the railway bridge at West Road, and from the south at the edge of the settlement at the junction with Pilgrim's Lane and Stifford Road. From the south west a wooded approach forms a gateway when travelling from Aveley after crossing over the M25. The B186 main road from Grays to Brentwood runs north/ south along the eastern edge of South Ockendon.
Scenic Qualities	There is little of visual interest because so many buildings are the same height and square shape – but interesting architectural forms provide some variety, such as chimneys and mono-pitched roofs (such as the building near the Royal Mail centre at Derwent Parade). Mature trees such as the ones in Dilkes Park add visual texture. Wide roads and wide grass verges present a horizontal, sometimes flat visual quality.
Perceptual Qualities	Busy and noisy North Road (B186) corridor. Derwent Parade and North Road around the Village Green are busy hubs with pedestrian and vehicle activity. Vehicles are a notable presence, with unmanaged parking on verges and small pieces of land, giving the impression of discordance and clutter.
Visual Character and Views	The character of views is often monotonous and dominated by 'hard' landscape and parking. However, trees – particularly mature trees – in open spaces within the town and some occasional glimpsed views along streets to woodlands at the edges of the town that are visible above the roofs of houses (e.g. Oak Wood from Easington Road) – provide welcome visual interest and texture.
Landmarks and Skylines	The distinctive round tower of the Church of St Nicholas and the war memorial at Ockendon Green are local landmarks in the north east of the town. Elsewhere there are few tall buildings or structures meaning that landmarks are not notable.

Character Evaluation

Quality/ Condition

- D1.13 Overall the quality and condition of the townscape in South Ockendon is relatively poor and in need of management and regeneration. Utilitarian streetscapes are often cluttered by parking and incoherent signage and street furniture and discordant in style. There is generally a weak character and sense of place within residential areas with utilitarian built character and a lack of variety in heights meaning that it is often difficult to orientate oneself. Some of the open spaces are overly managed, resulting in a lack of biodiversity and visual interest. Poor quality and decaying building facades and public realm create a perception of neglect.

⁶ <http://www.british-history.ac.uk/vch/essex/vol7/pp117-126>

- D1.14 Historic buildings within the historic core improve the quality of the area and the proximity to several high quality open spaces within the town and at the edges of the town – including Dilkes Park, Belhus Park and the Mar Dyke Valley to the south.

Past change

- D1.15 In this area there has been rapid residential expansion which has led to large areas of the same post-war character and harsh urban edges. Mineral sites have created areas of derelict land and rough grazing on the edge of the settlement to the south, and landfill to the east (within the adjacent character area).

Key sensitivities and valued attributes

- D1.16 The value of some features is recognised through designations, such as listed buildings and Local Wildlife Sites. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- Ockendon Green, which is valued for its historic character and strong sense of place, enforced by the presence of historic elements such as the war memorial, St Nicholas Church and the Royal Oak Inn which help to create a distinctive node;
 - Historic core including buildings such as St. Michael's Church which lend a strong sense of place, diversity of building style and a sense of time depth; The landscape setting provided by the woodlands within LCA C1: Belhus Farmed River Terrace Gravels. Dilkes Park and Little Dilkes Wood, an attractive and popular park with mature trees, which provides local sense of place, natural character and a visual 'breathing space' between otherwise relatively dense residential development.

Vision

The vision for this character area is: a place with an enhanced and strengthened character and distinct sense of place as a result of high quality buildings and public realm with strong and legible connections, new vibrant centres, and with attractive and biodiverse open spaces within and surrounding the town.

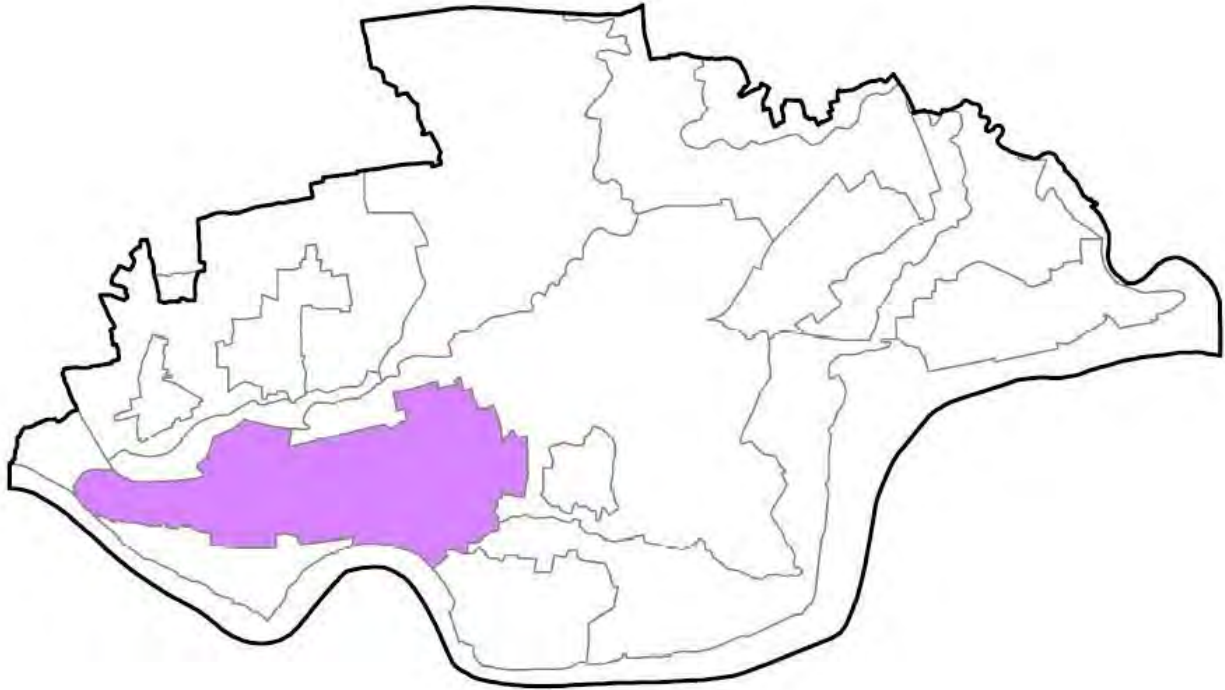
Guidance to conserve and enhance character

D1.17 The Thurrock Design Strategy SPD, 2016 should be read alongside this guidance.

- Improve the setting of South Ockendon by better integrating housing at the eastern settlement edge to complement the rural setting e.g. by planting of woodland blocks to soften and enhance the built edge.
- Improve the quality of public realm e.g. paving, materials, coherent signage, furniture, and planting of street trees to strengthen sense of place
- Enhance and strengthen the character and quality of building forms and facades to strengthen existing character. Encourage local distinctiveness through the use of appropriate local building materials and styles.
- Encourage a relatively higher density of built form in key nodes/ focal points integrated within high quality landscape surroundings to provide variety and prevent further settlement expansion at the edges of the town.

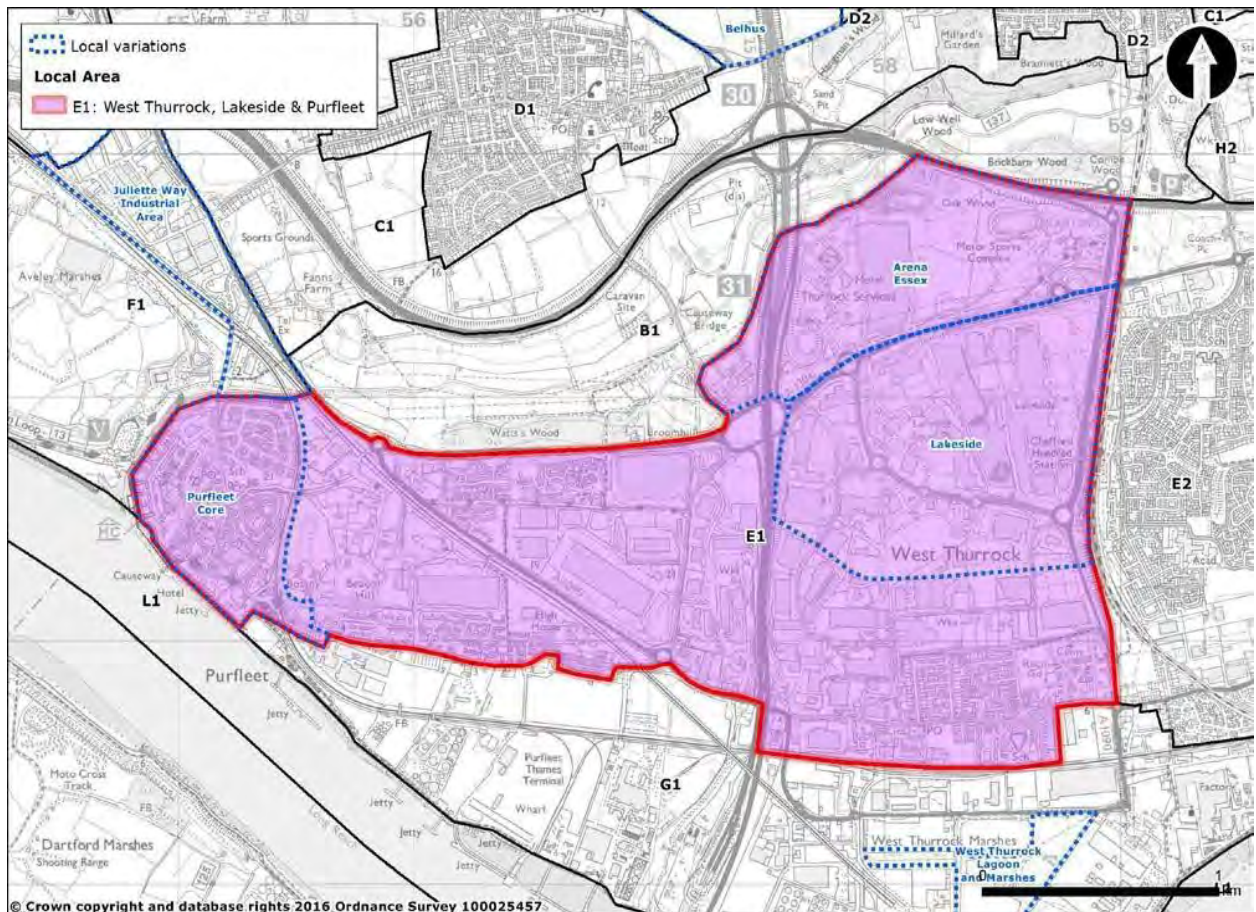
- Promote South Ockendon's heritage through careful preservation and integration of historic buildings and structures.
- Regenerate the Derwent Parade with an integrated masterplan approach that ensures connectivity with the surrounding areas. Possibility of tall landmark to improve legibility and orientation.
- Improve the management of existing open spaces for biodiversity, including the grass verges and open spaces. Maintain areas of existing woodland and species-rich grassland.
- Create and enhance linkages (footpaths/cycleways) within the town and with the adjacent landscapes of LCA C1: Belhus Farmed River Terrace Gravels for recreation.
- Ongoing review of management practices to enhance the condition of the ancient grassland around South Ockendon Church – refer to Local Wildlife Site guidance.

LCT E: Settled Chalk Ridge



- E1.1 This landscape type is defined by a band of chalk upon which the settlements of Purfleet, West Thurrock, Lakeside, Chafford Hundred, South Stifford and Grays have developed and merged together to form one large urban area. The band of chalk forms a low ridge above the adjoining Developed Marsh (LCT G) to the south and the Mar Dyke River Valley (LCT B) to the north, and has been extensively quarried, leaving distinctive chalk pits and exposed chalk faces. To the east the geology transitions to clay, giving rise to the farmland character of the Open Undulating Farmland (LCT H).
- E1.2 There are two character areas associated with the 'Settled Chalk Ridge' character type in Thurrock:
- **LCA E1: West Thurrock, Lakeside & Purfleet**
 - **LCA E2: Grays, Chafford Hundred & South Stifford**

LCA E1: West Thurrock, Lakeside & Purfleet



Location and Boundaries

- E1.3 This character area is located in the south west of the borough, to the west of Grays. Purfleet is located at the western end of the conurbation, on the north bank of the River Thames – the river forms its southern boundary. The remainder of the area's southern boundary is defined by the adjoining West Thurrock Marshes (LCA G1) – defined by the 5m contour line along London Road - whilst the northern boundary is defined by the break in slope into the Lower Mar Dyke River Valley (LCA B1). The eastern boundary is defined by West Thurrock Way and the railway line, which alongside the exposed chalk face divide the area from Chafford Hundred and South Stifford to the east, which form part of LCA E2.

Photos



Purfleet Magazine is a Grade I listed building and Scheduled Monument dated 1763-5. It was the main testing and storage site for all the gunpowder used by the British military during late Georgian and Victorian times. Originally one of five magazines it is now the site of Purfleet Heritage & Military Centre.



Lakeside, a large retail and leisure complex set around lakes is on the site of a former chalk quarry. Residential development at Chafford Hundred visible in the left of the image (Copyright Ron Poulter).



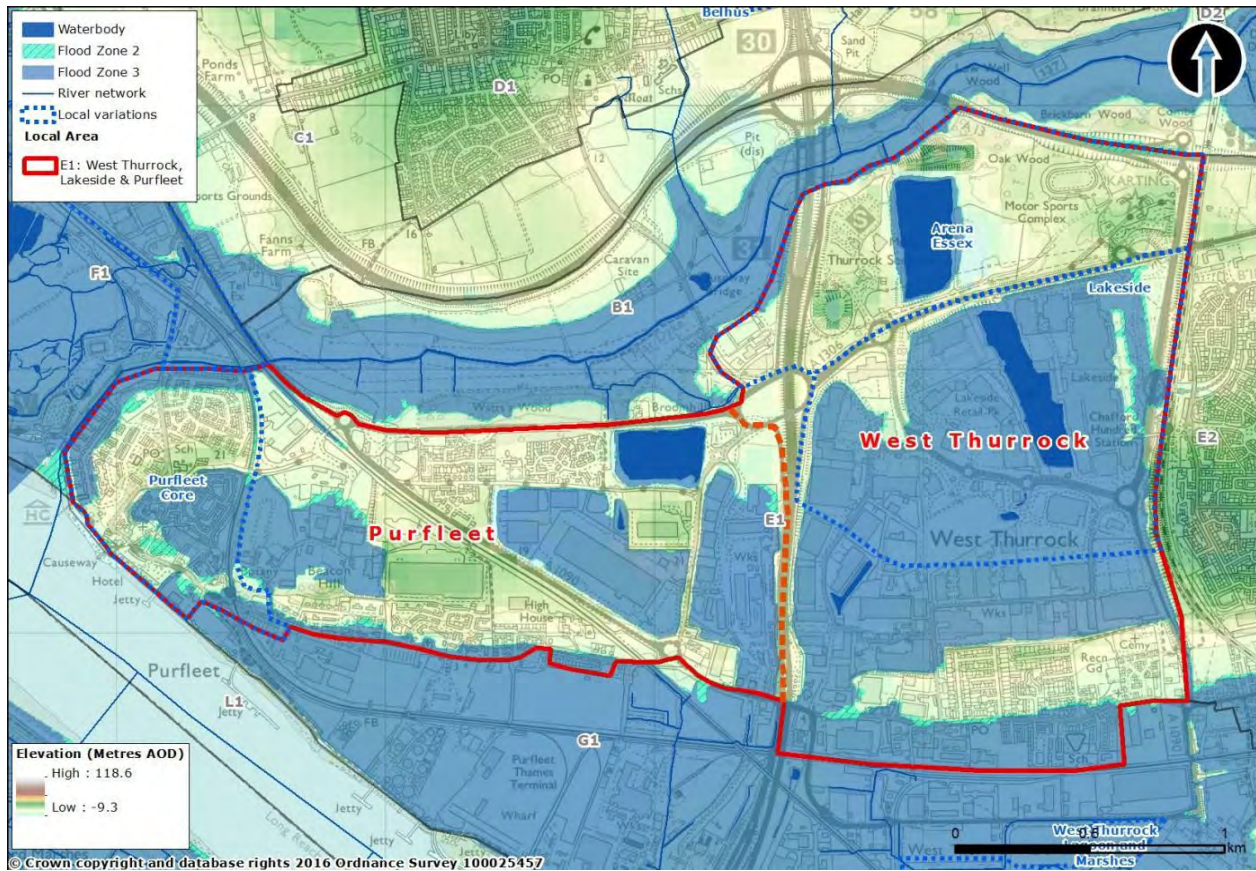
The view along Vellacott Close from the Royal Opera House complex at High House, a historic conversion project around the listed and Scheduled Dovecote. A row of terraced cottages along London Road is visible in the middle ground, with the QEII Bridge behind.

Local Scale

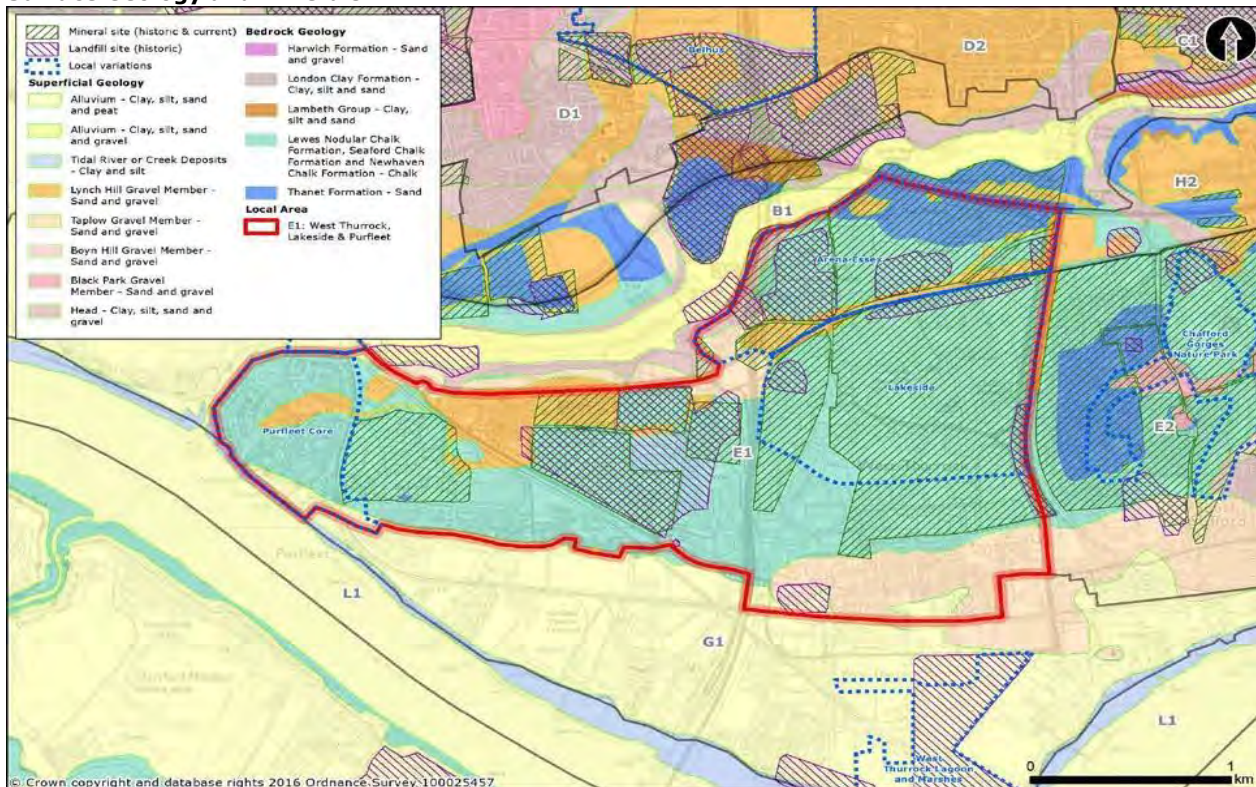
Landscape Character Profile

Landscape Character Area:
E1: West Thurrock, Lakeside & Purfleet

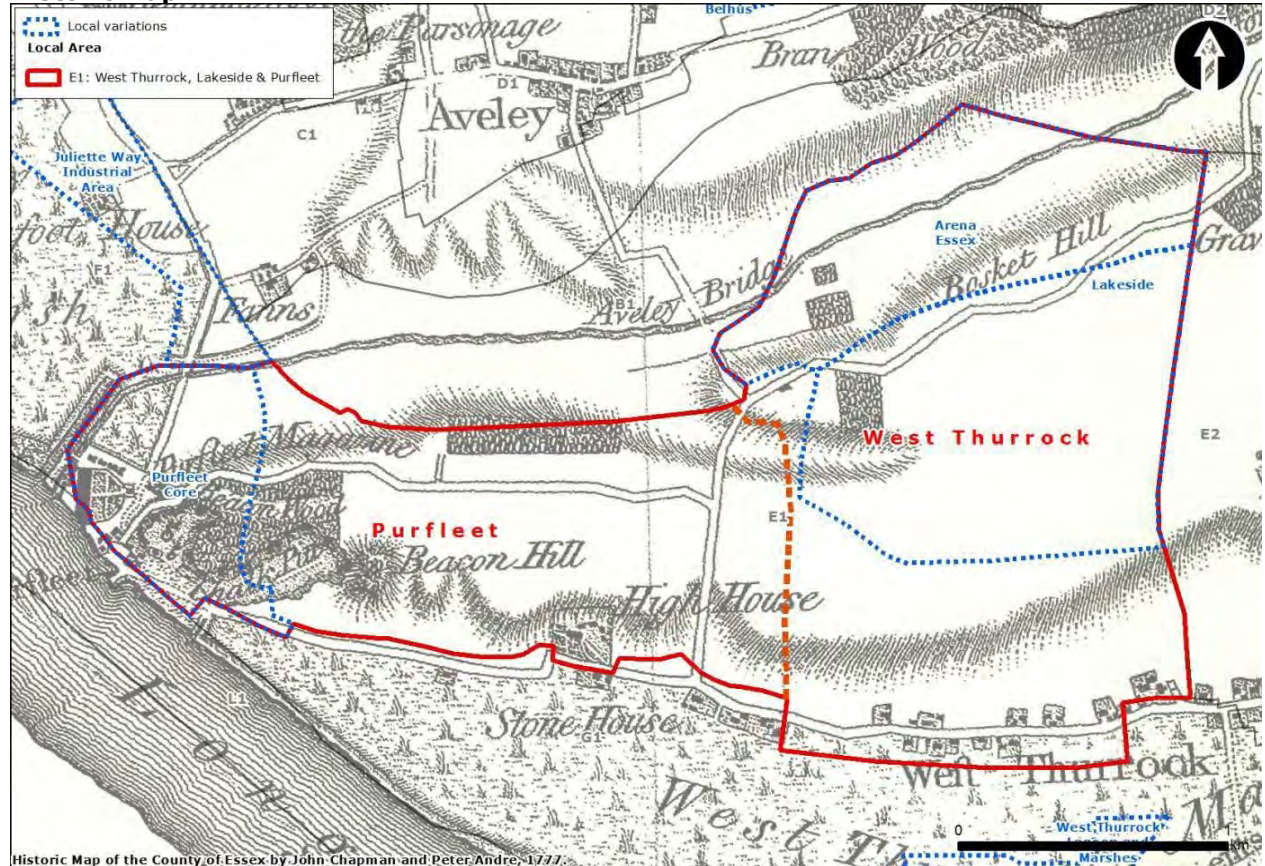
Topography and Drainage



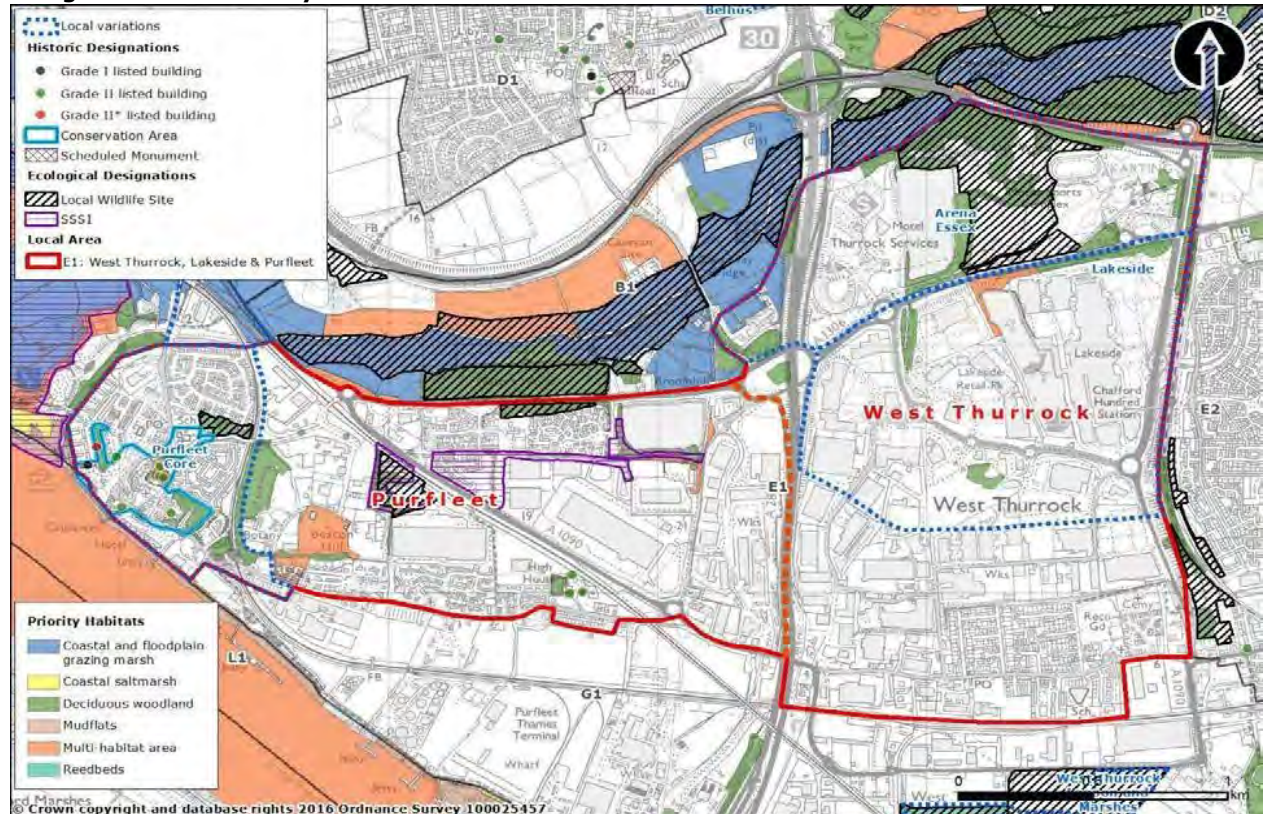
Surface Geology and Minerals



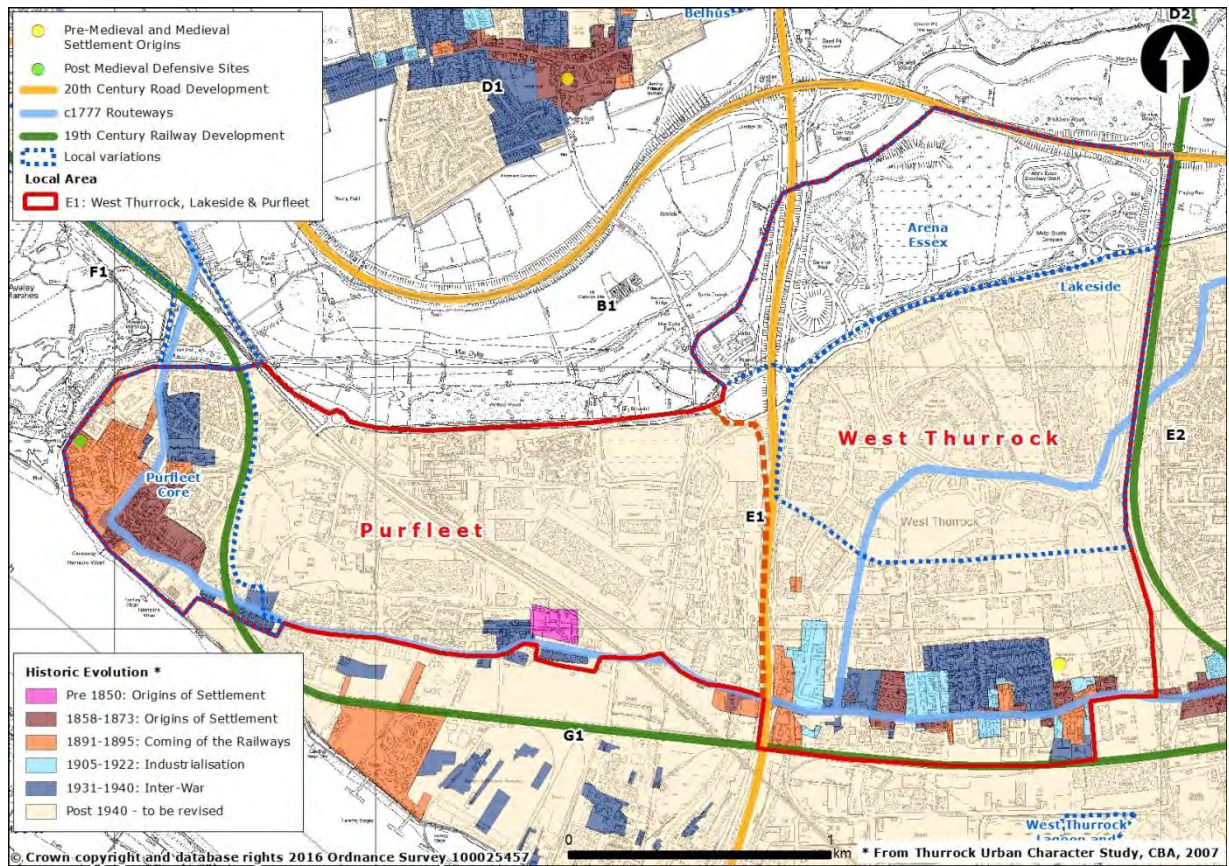
Historic Map 1777



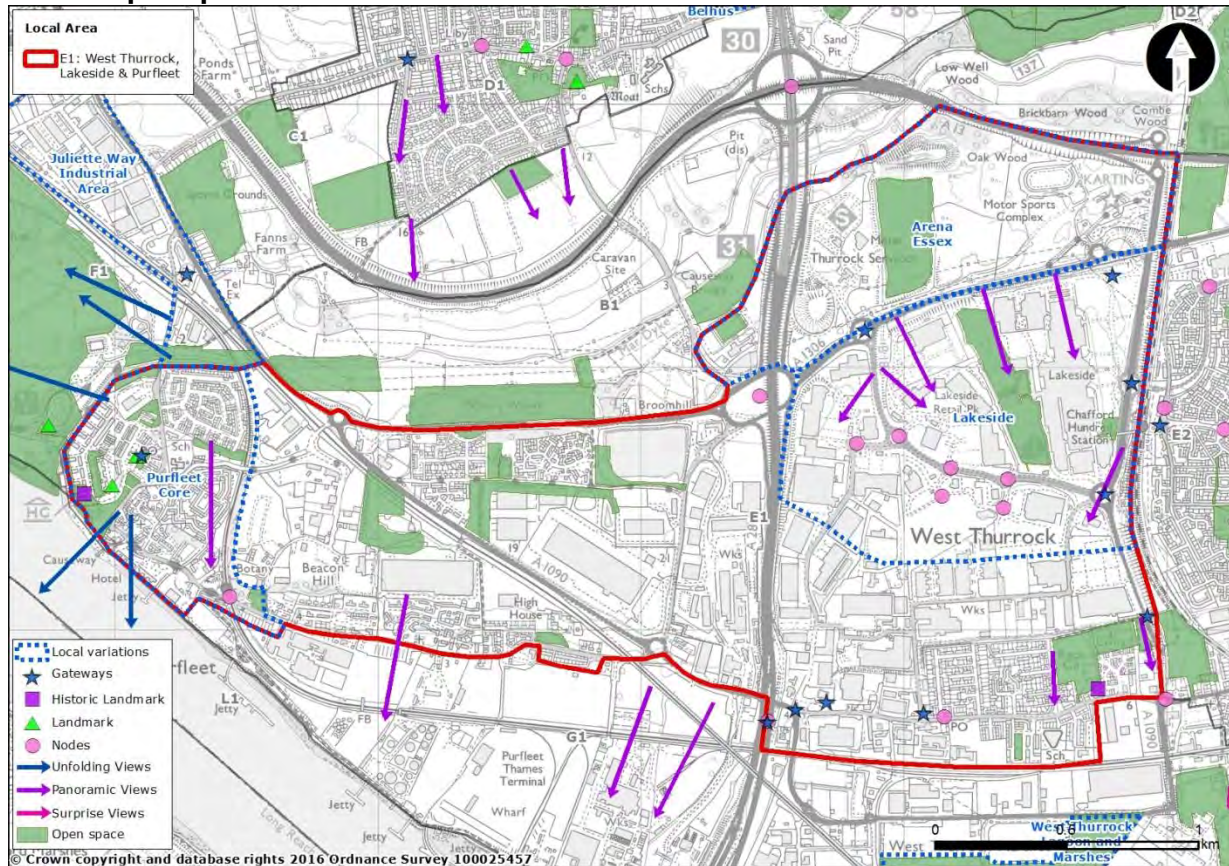
Designations and Priority Habitats



Historic Evolution



Townscape Experience



Character Description

Overview

- E1.5 This is an urban area whose character is greatly influenced by quarrying and industrial development. Large scale road and rail corridors, commercial/ industrial developments and large retail buildings of Lakeside Retail Park dominate the character of the area. Residential areas in West Thurrock and Purfleet sit amongst large scale industrial buildings, with some historical buildings and pockets of natural open spaces providing localised character.

Key Characteristics

- A low ridge on chalk geology which is visible in exposed chalk cliff faces has resulted in extensive quarrying and subsequent infilling and development across the character area.
- Chalk exposures reveal river terrace deposits overlying the chalk, providing information on the evolution of the Thames and Northern European interglacial sequences (e.g. Purfleet Chalk Pit SSSI).
- Slightly raised elevation above the marshes and Thames to the south allows some long distance, panoramic views from higher areas to the Thames, the QEII bridge and along the Thames corridor to London.
- A mixture of land uses of transport infrastructure, commercial/ industrial developments, retail (including Lakeside Retail Park) and residential, create a fragmented environment.
- Pockets of history dotted amongst the urban fabric such as High House in West Thurrock.
- Small strips of deciduous woodland, mudflats along the coastal edge at Purfleet and outcrops of calcareous grassland flora amongst the urban fabric provide biodiversity interest.
- A strong sense of place in Purfleet with historic connections to the Thames, remnants of a planned village and Proof House built by the Whitbread family in the 18th century and the remaining gunpowder magazine.
- The Thames to the south provides a relatively strong landscape setting.
- Associated with the setting for Bram Stoker's novel 'The Dracula Story', a location for the storage of gunpowder from the mid-1700s and artist J.M.W. Turner who made sketches of Purfleet in 1805-08 mainly featuring the Purfleet Royal Powder Magazines

Components that Contribute to Character

Landscape Component	Description
Geology	The chalk geology is a distinctive characteristic of the area. Exposed chalk quarried cliff faces are visible landscape features. Purfleet Chalk Pit SSSI is designated for the interesting fluviially derived sands and gravels (terrace deposits) which overlie chalk, providing information on the evolution of the Thames and Northern European interglacial sequences.
Topography	This settled area sits on a low ridge of approximately 5-20m AOD, lying just above the adjacent marshes and river valley landscapes to the south and north respectively, which lie below 5m AOD. Topography has been heavily altered by extensive chalk quarrying and infilling from past chalk extraction. Lakeside Retail Park was built at the bottom of a former chalk quarry, and the road to the north and residential area of West Thurrock to the south of Lakeside are relative high points in the area, facilitating views southwards.
Hydrology	Much of the area is within flood zone 3 due to its low elevation. There are no significant watercourses within the area but there are lakes, the result of restored excavation pits.
Land Cover and Biodiversity	Green spaces are dotted within the urban fabric, providing space between areas of built development. These are mostly small areas of amenity grassland with occasional trees and planting around residential developments. Small areas of woodland or brownfield sites provide visual and biodiversity interest. Lakes within former chalk pits include the large lake at Lakeside. Ecological value is contained to small areas of deciduous woodland (a Priority Habitat), many of which are recognised as Local Wildlife Sites, as well as part of Watt's Wood ancient woodland (also part of the Thames Chase Project) north of the A1306. There are also small outcrops of calcareous grassland flora, such as at Tank Lane, the disturbed marginal ground at Brickbarn Wood and the edges of former chalk quarries (these are recognised as a Local Wildlife Site). Some of the quarry sides are also valuable habitats for invertebrates and flora (e.g. Purfleet Pit, a Local Wildlife Site – and geological SSSI). Arena Essex is designated a Local Wildlife Site for the rare plant Broad-leaved Cudweed found there.
Land Use	Road corridors (including the M25, A1090 and A1306) and railway lines lie within a mixture of residential, commercial, retail, recreational and industrial land uses. Lakeside Retail Park is a large area of retail land use in the north east of the area. The Thurrock Service Station on the M25 lies to the north of the A1306 and there is a large motorsports complex at Arena Essex. There are small pockets of amenity open space including 'Riverside Green' in Purfleet (the Purfleet Heritage Centre & Park), small recreation grounds and a memorial ground and cemetery in West Thurrock.
Settlement Form and Setting	The sprawl of development has blurred the boundaries between the different settlements in this area. However, the western end of Purfleet retains a distinct nucleated form around a historic core with the edges strongly defined by the Mar Dyke river to the north and west, the River Thames to the south and the railway line to the east. The rest of Purfleet is fragmented with areas of residential next to light industry and large retail buildings, although a masterplan for the regeneration of Purfleet is being prepared at the time of writing, which will create a new town centre with a film, television and media village at its heart. The River Thames to the south is important to the setting of Purfleet.
Built Form and Style	There are often juxtapositions of large commercial buildings next to small scale residential houses creating a stark contrast in scale. There are many buildings of historic interest in Purfleet, mainly focussed in the Conservation Area⁷, and many of them listed. Local vernacular materials include brick – hand made bricks are typical in 18th century buildings (red brick) and 19th century (yellow stock or grey gault brick). For example Hollow Cottages, are 19th century brown brick almshouse character cottages with tiled roofs. Lime render and weatherboard were traditionally used to reduce the penetration of damp on buildings, and some buildings were encased in cement render. The mixture of ages, styles and materials creates interest and character to the area. Purfleet Magazine is constructed of Flemish bond brown brick with Portland stone dressings and stone-capped gables with a pitched slate roof⁸. There is a mixture

⁷ <https://www.thurrock.gov.uk/sites/default/files/assets/documents/purfleet-character-appraisal.pdf>

⁸ <http://www.historicengland.org.uk/listing/the-list/list-entry/1166258>

Landscape Component	Description
	of ages and styles of buildings in the rest of Purfleet and West Thurrock, with 20th and 21st century residential developments including flats, semi-detached, detached or terraced houses, set side by side against very large scale industrial and commercial developments. Historic listed buildings at High House have been incorporated as part of the Royal Opera House new hub, including the Dovecote Scheduled Monument and the Barn to the north of High House – an early 18th century timber-framed and black weather boarded barn with red plain tile roof⁹. Stone walls are a feature of the local vernacular here. Lakeside: Retail and commercial area characterised by large warehouses and superstores, busy dual carriageways with roundabouts, and car parking.
Sense of Place	Overall the area has a weak sense of place, as industrial buildings and standardised modern buildings and public realm dominate, with few locally distinctive areas or landmarks visible. However, there are elements of local distinctiveness such as the chalk quarry faces which are locally recognisable and indicate the underlying geology. The historic part of Purfleet where historic buildings – including the historic Purfleet Garrison – and relationship to the river, has a strong sense of place.
Connectivity	There is poor pedestrian connectivity between the places within this area and between these places and those outside such as the River Thames to the south and Chafford Hundred/ Grays to the east. Railway lines and major roads present major barriers to pedestrian movement.
Historic Landscape and Time Depth	The area has an interesting history, although much of it is currently hidden by industrial development and infrastructure. Archaeological evidence has been uncovered throughout the area including several Romano-British burials dating back nearly 1700 years at High House, Purfleet. A large amount of Palaeolithic material has been found at Purfleet Core and quarry sites such as the area around the existing Purfleet bypass. The area was once a rectilinear field system between the Mar Dyke to the north and the marshland of the Thames Estuary to the south. High House, Purfleet was originally built in the 16th century to equally divide the Manor of West Thurrock between two daughters¹⁰. At that time it was on the banks of the Thames and in the 1780s Samuel Whitbread developed the Manor with wharfs and quays and ferries over the Thames to Kent to ship lime that had been mined from the chalk quarries of Purfleet. The Dovecote at High House is a Scheduled Monument. It shows the historic power and affluence of the families previously residing in the house and is thought to be one of only a small number of exceptional survivals in Essex¹¹. Purfleet Conservation Area retains an intact area of undisturbed land despite much 20th century development. An important part of this is the gunpowder magazine (one of the previous five magazines, now a Heritage and Military Centre). In the 1760s the Royal Gunpowder Magazines were transferred from Greenwich to Purfleet, to store all gunpowder for the government. Purfleet developed a tourist trade from the 1830s for day trippers from London arriving on ferries, trains and bicycles to enjoy the river and scenic walks to Beacon Hill¹². Chalk extraction has taken place in the area from the 16th century. The Whitbread family were owners of many of the chalk quarries in the area in the 18th century and built housing and facilities for many of their workers. West Thurrock developed along the route of a former Roman Road from a medieval linear roadside settlement. The residential area developed to house people working in many of the town's factories and surrounding retail areas.
Cultural Associations	Count Dracula (in Bram Stoker's novel 'The Dracula Story') moved to 'Carfax House' in Purfleet from his Transylvania castle. A Heritage Plaque at St Stephens Church marks the site, in the grounds of Purfleet House which appears to have been the model for the mansion. In the mid-1700s Purfleet Royal Gunpowder Magazine was established as a location for the storage of gunpowder together with a garrison to protect it.

⁹ <https://www.historicengland.org.uk/listing/the-list/list-entry/1337103>

¹⁰ <http://www.highhousepurfleet.co.uk/>

¹¹ <https://www.historicengland.org.uk/listing/the-list/list-entry/1017234>

¹² Purfleet Heritage Park informationboard.

Landscape Component	Description
	Many ships frequented Purfleet to collect gunpowder including Captain Cook's HMS Adventurer in 1772. Artist J.M.W. Turner made sketches of Purfleet in 1805-08 mainly featuring the Purfleet Royal Powder Magazines. The sketches are now a part of the Tate Britain collection. The Royal Opera House has its scene-making facility and costume centre at High House Purfleet, a creative hub centred around 16th century historic farm buildings and a dovecote.
Urban Structure	Except for the node at the centre of Purfleet historic area, the gateways and nodes of the urban area are marked by roundabouts and main road junctions. The general lack of clear urban structure means the area lacks legibility and distinction, particularly between the areas of Purfleet, West Thurrock and Lakeside. The area close to the waterside in Purfleet is the key historic settlement core in the area.
Scenic Qualities	The area has a relatively low scenic quality due to the discordant, fragmented and disturbed nature of the landscape/ townscape. There are many visual detractors including industrial buildings, retail buildings, major transport infrastructure and pylons. There are some features of visual interest including the historic buildings (including garrison buildings at Purfleet), areas of woodland and exposed chalk faces, as well as views to the Thames from Riverside Park in Purfleet.
Perceptual Qualities	Busy, active and generally noisy as a result of transport corridors and industrial works within the area and in the industrial areas outside the area to the south. The Royal Opera House complex including its walled garden is a haven of relative tranquillity amongst the large scale infrastructure. The Riverside Park at Purfleet provides a sense of openness and expansiveness with wide reaching views along the Thames.
Visual Character and Views	As this area is a ridge, there are views from higher points across the West Thurrock Marsh to the Thames, such as from the railway line towards the bridge, around High House and along the historic Tank Lane which follows the chalk cliff edge. Within West Thurrock there are glimpsed views from higher places within residential streets towards the Thames. In Lakeside there are some glimpsed views in between roadside screening from the Arterial Road West Thurrock towards the south, across Lakeside rooftops to the industrial Thames Valley and beyond south of the river. Views west towards London along the Thames emphasise a strong visual relationship between the settlement and the river. Views of the QEII Bridge and the power station on the southern bank of the Thames provide visual interest.
Landmarks and Skylines	There are no particular landmarks in the character area. Skylines are usually dominated by large buildings in the foreground or middle distance.

Local Variations in Character

- E1.6 Localised areas which vary in character have been identified as follows (albeit they are united by the settled chalk ridge character):

Purfleet Core

- E1.7 'Purfleet Core' is a distinct area because of its lack of industrial/ commercial land use, unlike the rest of the character area. The Purfleet Core has a distinct urban structure with historic interest – particularly within the Purfleet Conservation Area, and a stronger sense of place. Purfleet village is a planned settlement dating to the 18th century and developed by the Whitbread family who were the owners of the adjacent chalk quarries.

Lakeside

- E1.8 Lakeside Retail Park is an area defined by its retail and leisure land uses and roads with

roundabouts set around a large lake. It is a distinct area recognisable from its surroundings.

Arena Essex

- E1.9 This area to the north of Lakeside is distinct as a result of its leisure/ commercial land uses set in large outdoor plots. This includes Thurrock Football Club, The Thurrock Hotel, Thurrock Services and the Arena Essex Raceway.

Character Evaluation

Landscape Quality/ Condition

- E1.10 Landscape quality (condition) is generally poor. The character across the area as a whole is fragmented, illegible and chaotic as a result of the mixture of land uses and the dominance of major roads and infrastructure, which create visual and physical barriers to movement. Public realm is often in poor condition, with uncoordinated furniture and materials, little planting to soften built facades, and streetscapes have poor legibility as a result of clutter of street furniture, signposts and fencing marking the boundaries of adjacent land uses.
- E1.11 Green spaces are lacking, with the exception of the Purfleet Core area (with the attractive and open Riverside Park public space overlooking the Thames) and the landscaped setting of the Royal Opera House complex. The landscaping at Lakeside includes some amenity tree, shrub and herbaceous planting which helps to soften the hard landscape but could be enhanced and managed to encourage diversity and more visual interest. The lake at Lakeside provides a valuable resource but the area around the lake and views towards it could be enhanced to maximise its potential and to improve the experience of the surrounding environment
- E1.12 On the whole, sense of place is weak with no clear demarcation of where 'Purfleet' ends and 'West Thurrock/ Lakeside' begins. Views are interrupted by large buildings which block views to the Thames. Garish signage on the large retail units is strongly visible in views towards the area.

Past change

- E1.13 This area has been subject to extensive quarrying and infilling in the 19th and 20th centuries which has dramatically changed the topography of the area. 20th century development and infrastructure has changed the character of the area, replacing previous agricultural fields.

Key sensitivities and valued attributes

- E1.14 The value of some features is recognised through designations, such as the historic core of Purfleet that is designated a Conservation Area, a number of historic buildings that are listed, the Dovecote at High House which is a Scheduled Monument, the geological exposures at Tank Lane which are recognised as a geological SSSI, and some of the deciduous woodland and calcareous grassland sites which are recognised for their biodiversity as Local Wildlife Sites. These and other features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The chalk exposures that reveal the underlying geology and river terrace deposits, providing information on the evolution of the Thames and Northern European interglacial sequences.
 - A large amount of Palaeolithic material has been found in the area and therefore there is potential for archaeological remains in unquarried and undeveloped areas, increasing sensitivity to development.
 - The Riverside Park area in Purfleet Core that is a valuable recreation resource for the local community, providing a strong sense of place adjacent to the River Thames.

- The core of Purfleet (and particularly Purfleet Conservation Area) that is valued for its historic integrity and range of historic buildings (including 18th Century Military Magazine, Clock Tower, and houses from the Whitbread Estate) and contributes to scenic quality.
- High House, Purfleet, which provides a sense of history and provides visual interest.
- Mature tree canopies which often provide a green setting and wooded skyline backdrop for existing development.
- Naturalistic open spaces and features including riverside mudflats, deciduous woodland, and outcrops of calcareous grassland flora that provides biodiversity interest and sense of place.
- Long distance, panoramic views from higher areas to the Thames, the QEII bridge and along the Thames corridor to London which provide important sense of place.

Vision

The vision for this character area is: a vibrant urban area with well-preserved historic cores, a strong urban structure with well-defined distinct areas, biodiverse green spaces that reflect the underlying chalk geology, panoramic views across the Thames, a new urban centre at Purfleet and enhanced sense of place that relates to its history and natural setting of the Thames.

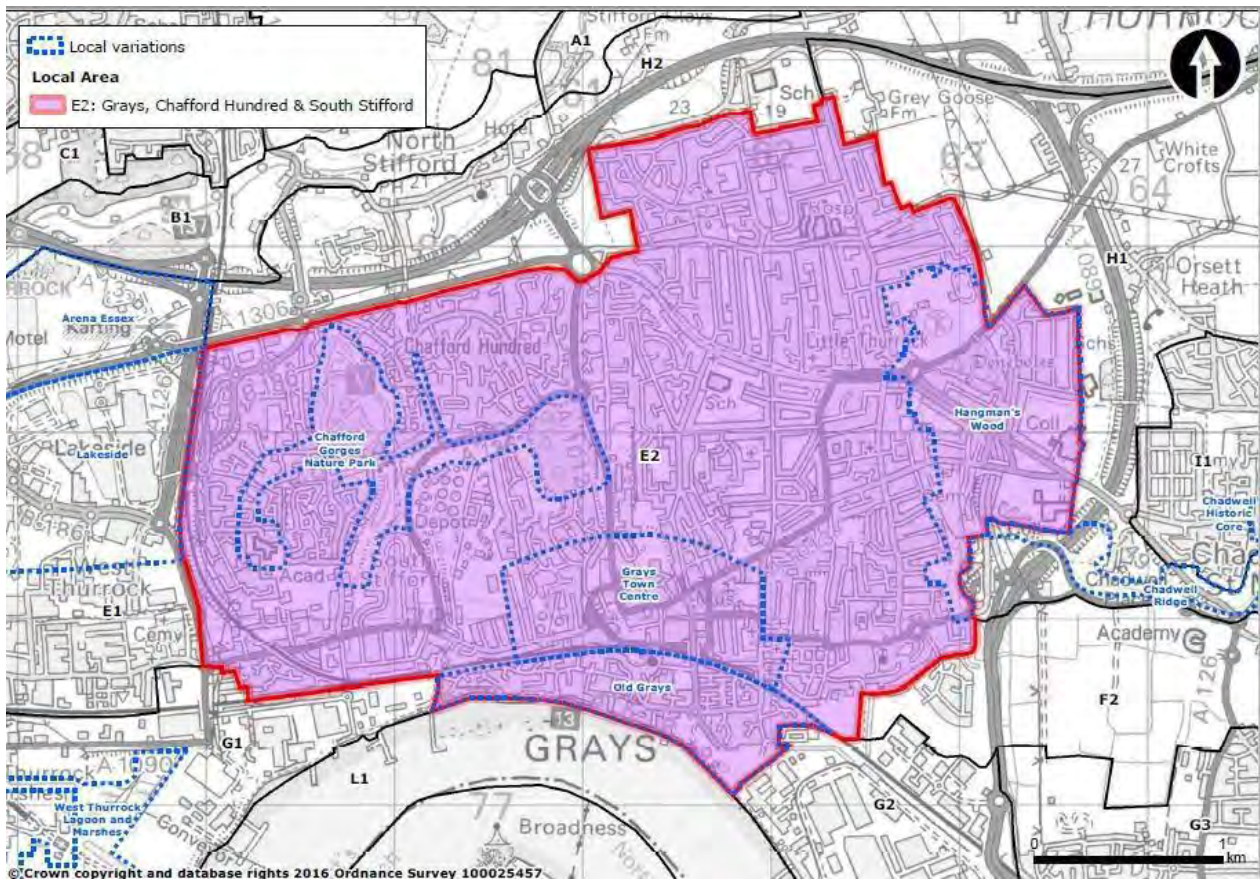
Guidance to conserve and enhance character

E1.15 Purfleet is currently the focus of a regeneration plan which will provide a new urban centre and integrate existing historic assets on the River Thames. For the remainder of the area, there are many opportunities for enhancing the character and quality of the area. The Thurrock Design Strategy SPD, 2016 should be read alongside this guidance.

- Improve the urban structure – e.g. through the implementation of a strategic scale masterplan for regeneration of the area as a whole. Aims should include:
- Ensuring logical definition between industrial/ commercial areas and residential areas, creating clear public private boundaries;
- Creating welcoming gateways;
- Defining a distinct sense of place for each of the areas of Purfleet, West Thurrock and Lakeside (e.g. through adoption of public art, designed views, high quality architecture);
- Promoting regeneration and repair of built facades;
- Enhancing public realm through rationalising street clutter, signage and boundary treatments with adjacent areas (such as replacing/ painting high metal palisade fencing or increasing tree planting in front of it);
- Improving pedestrian connectivity and incorporating coherent signage and lighting where routes are particularly enclosed;
- Encouraging regeneration of industrial sites to create new identity in distinct 'character areas'; and
- Increasing areas of green space/ planting as part of an integrated strategic level Green Infrastructure strategy.
- Conserve and enhance existing key historic features in Purfleet such as the Royal Hotel, clock tower, Garrison Wall and No5. Magazine and Proof House. Ensure that any new development respects the visual interest provided by these features.
- Preserve chalk exposures that reveal the underlying geology.
- Aim to preserve and extend areas of deciduous woodland and calcareous grassland flora.

- Improve connectivity along the existing Thames Water front Walk.
- Ensure new development incorporates appropriate amounts and types of high quality green space incorporating mature tree planting and seasonal planting for visual interest and vertical scale that is in proportion with surrounding buildings. Ensure new landscape areas link into the local and wider green infrastructure network and is accompanied by a plan for regular management and maintenance.

LCA E2: Grays, Chafford Hundred & South Stifford



Location and Boundaries

- E1.16 This area is located on the north bank of the Thames and includes Thurrock's main town of Grays. It lies to the east of the urban conurbation that comprises Lakeside, West Thurrock and Purfleet and is separated from the settlement of Chadwell St Mary by Open Undulating Farmland (the boundary here is a gradual transition to a more semi-rural character, marked by features such as Hangman's Wood). The northern boundary is formed by the edge of the settlement which is surrounded by the semi-rural farmland of **H1: Open Undulating Farmland** and the river corridor of the Mar Dyke. The western boundary of the area is defined by West Thurrock Way, a boundary reinforced by the steep chalk cliff edge separating it from the adjacent Lakeside Retail Park.

Photos



Chafford Gorges Nature Park from the Visitor Centre. The exposed chalk cliffs are remnants of the historic chalk pit here. The Nature Park has grassland, meadow, ponds and woodland, containing designated Local Wildlife Sites and Priority Habitats for deciduous woodland and chalk loving plants. There is also a network of pathways and information for visitors.

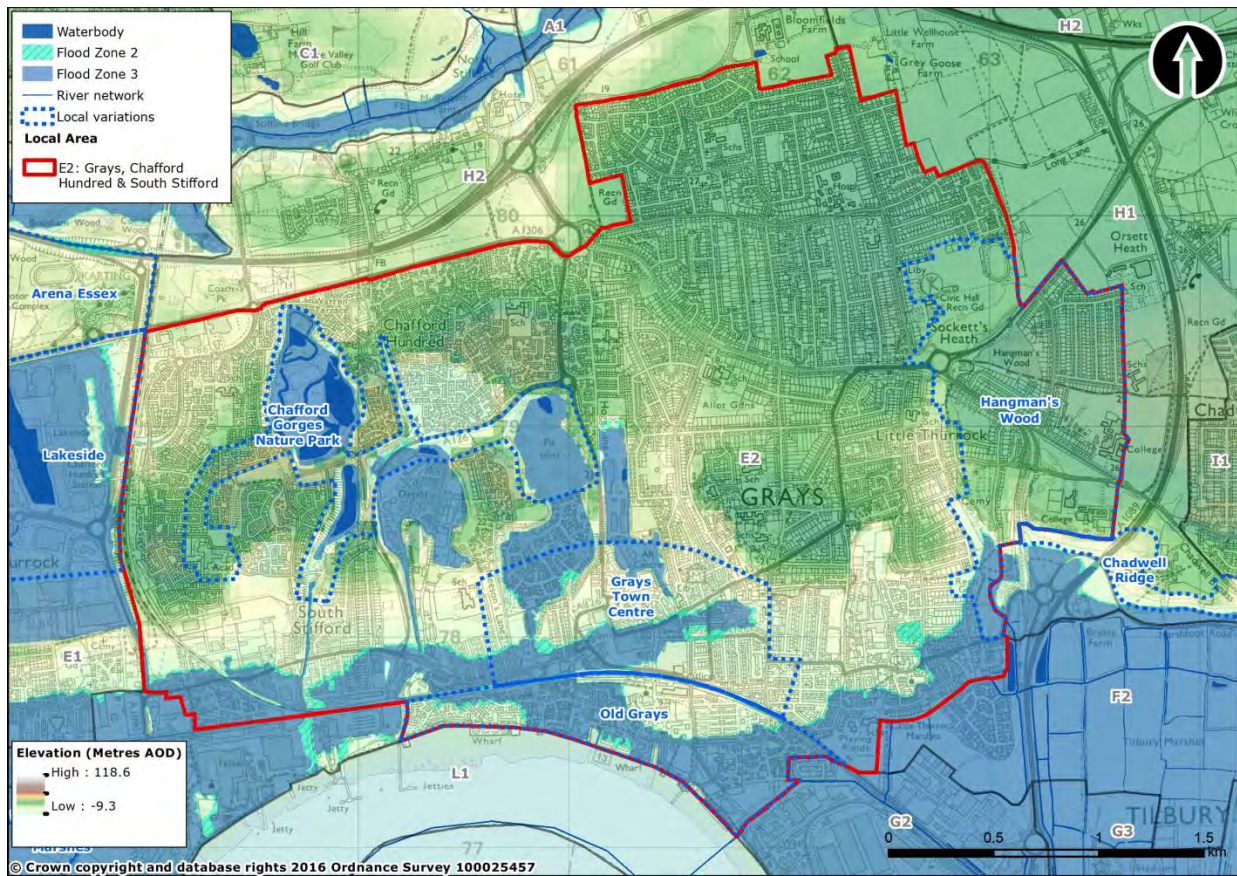


Grays Riverfront with the Yacht Club in the foreground.

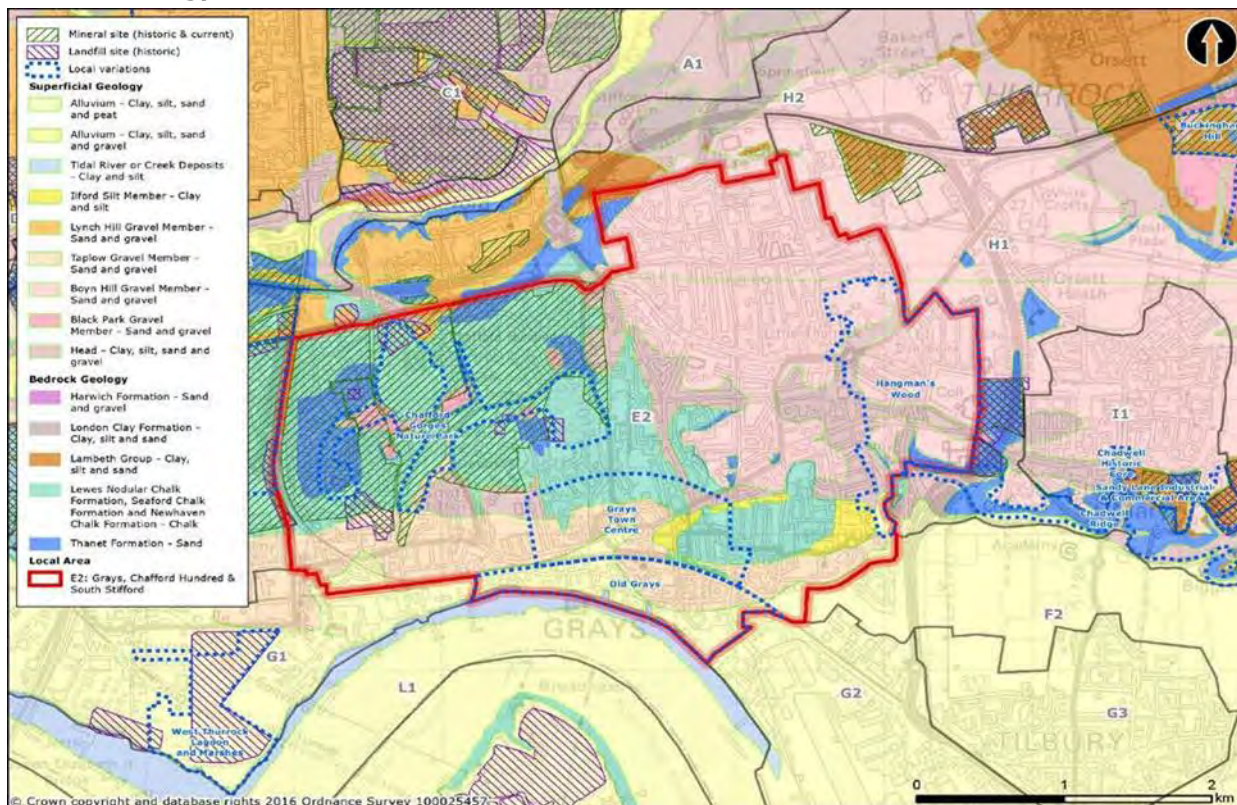


Tennyson Avenue, Grays, a typical residential street in the centre of the area.

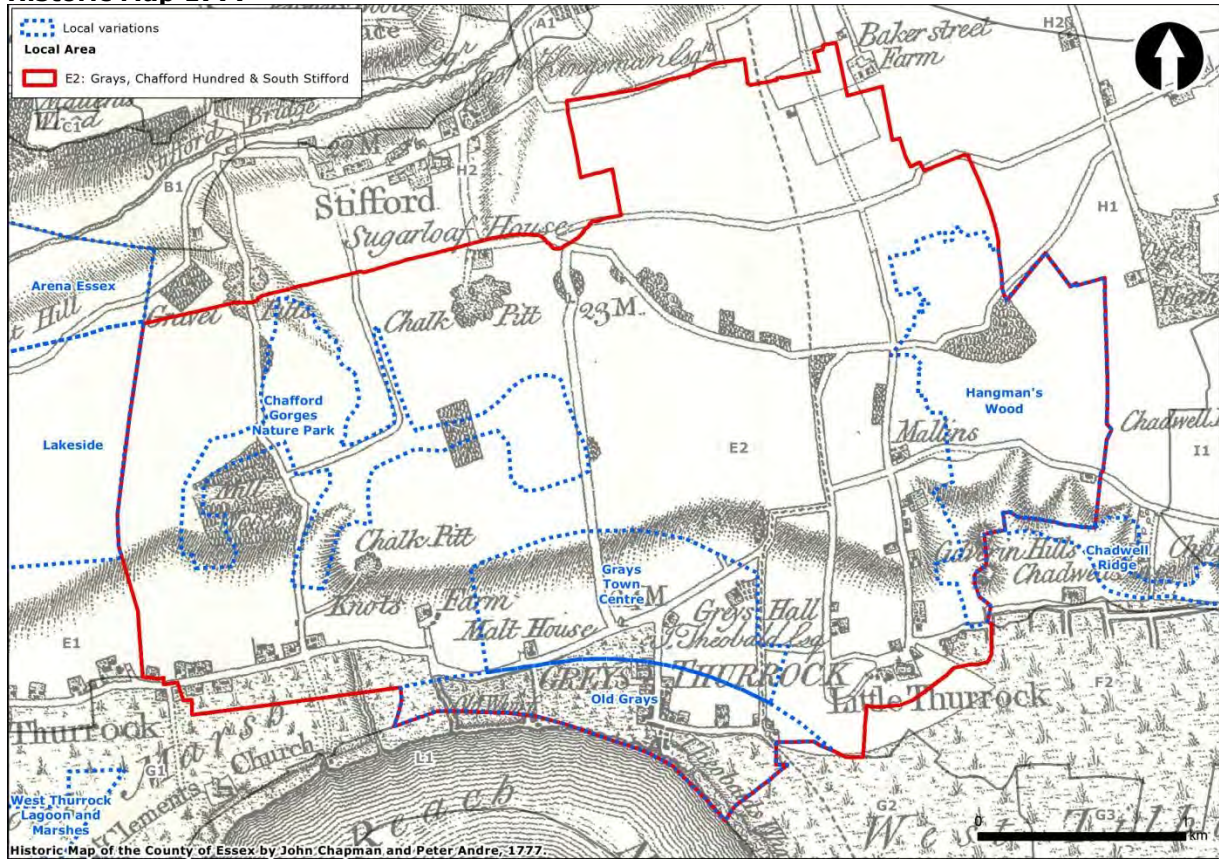
Topography and Drainage



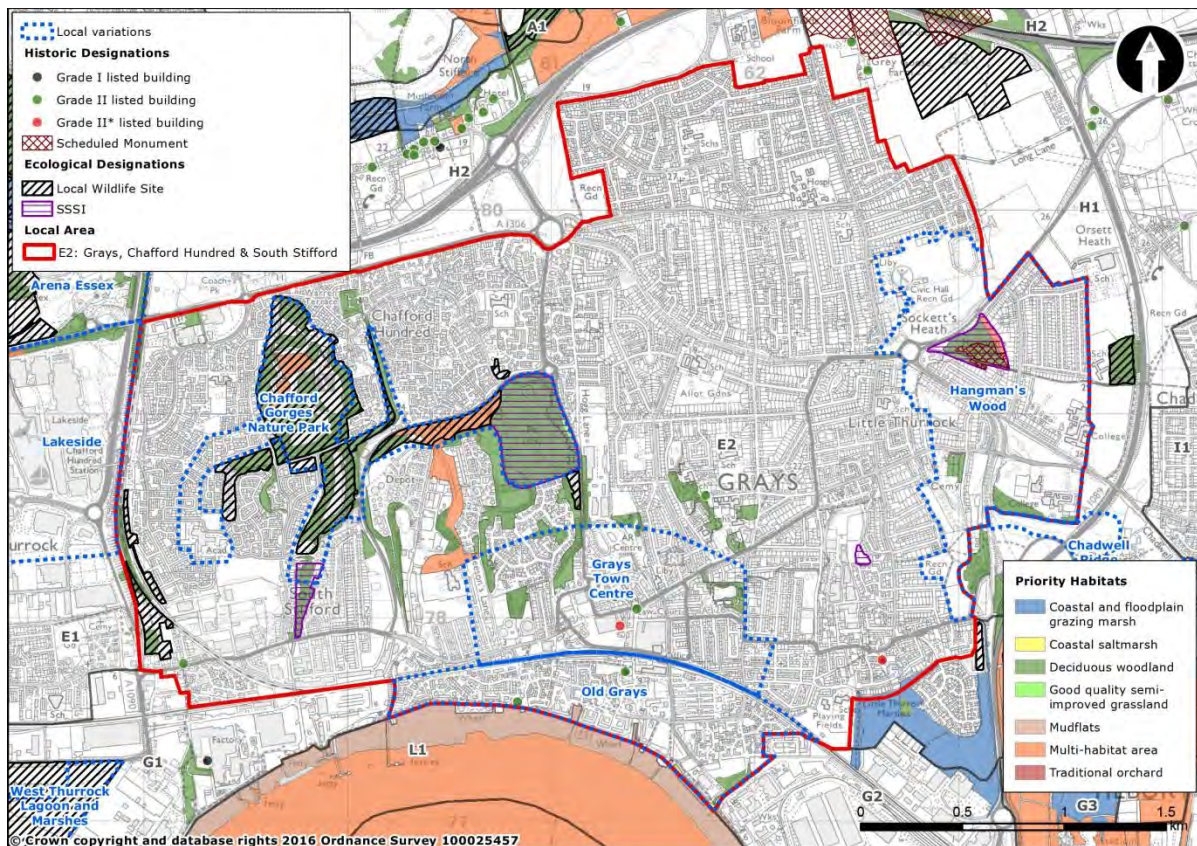
Surface Geology and Minerals



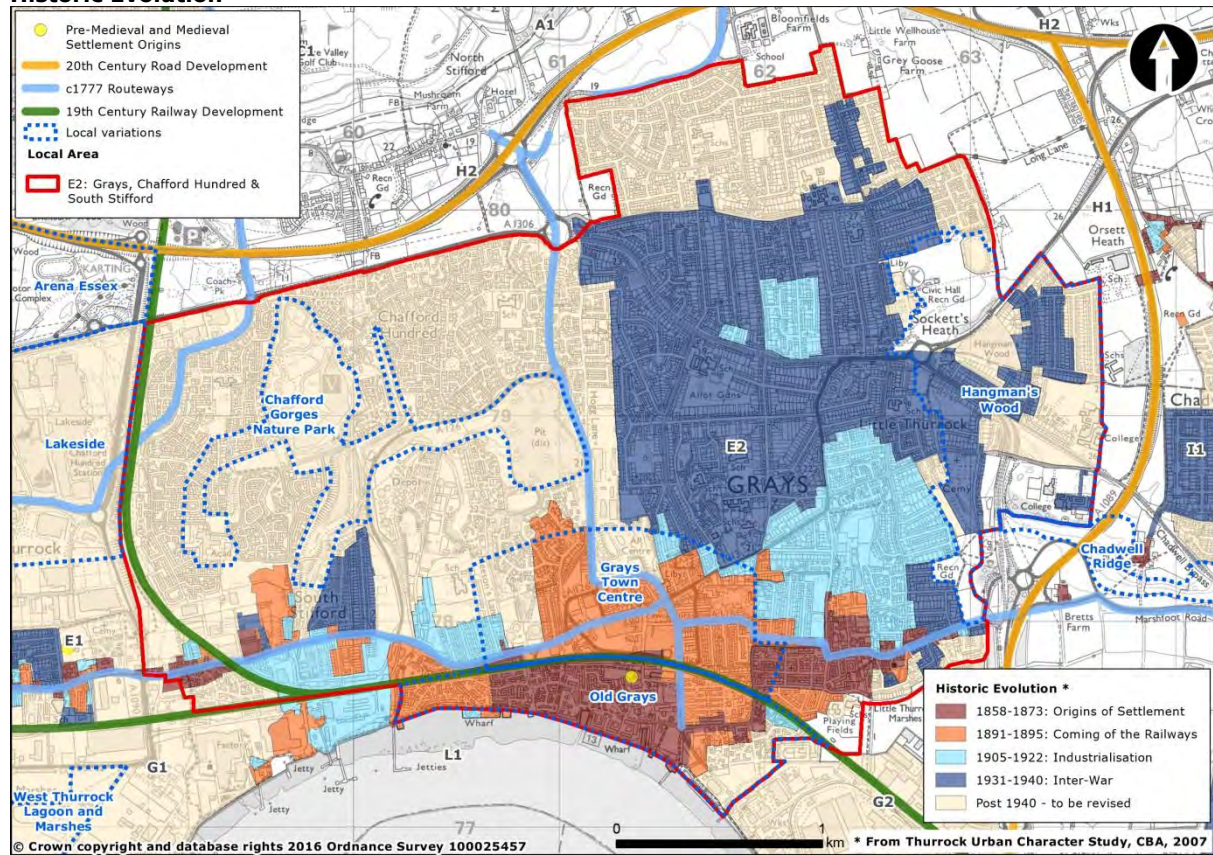
Historic Map 1777



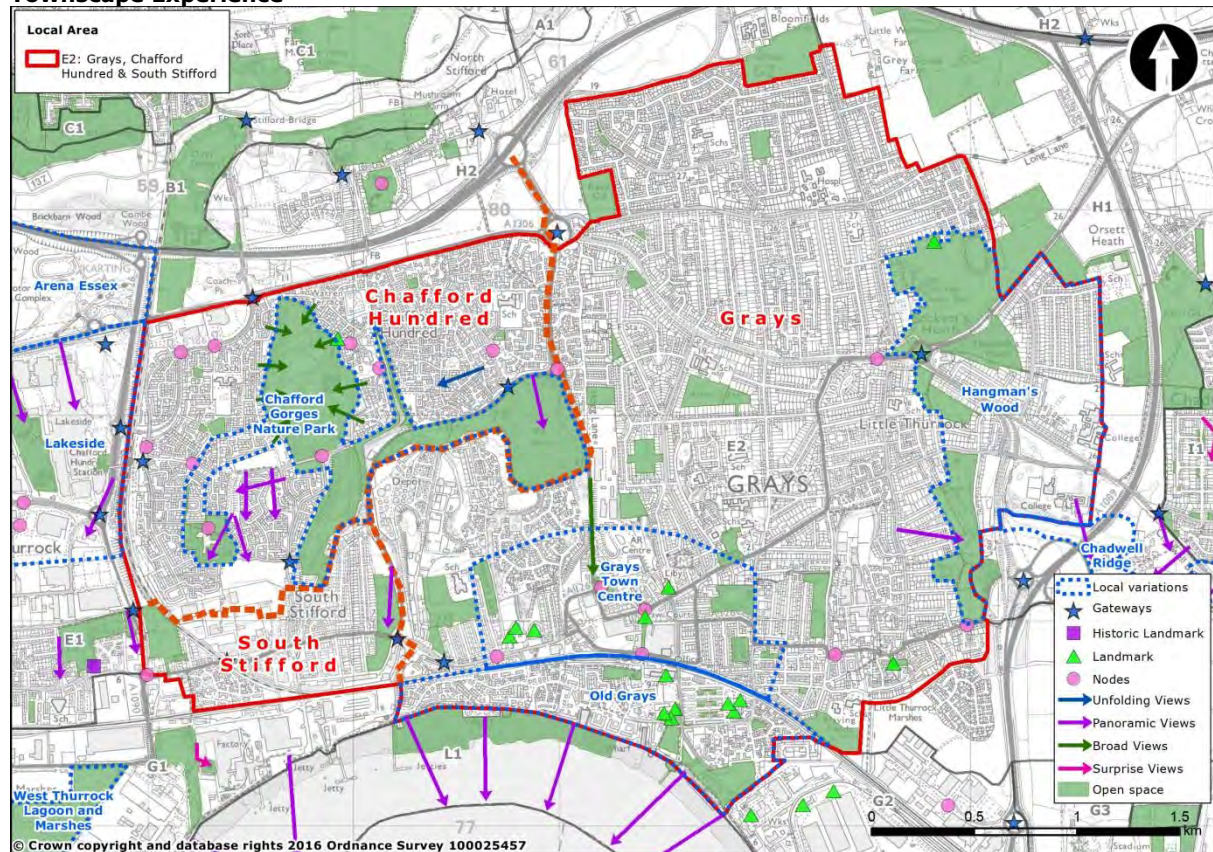
Designations and Priority Habitats



Historic Evolution



Townscape Experience



Character Description

Overview

- E1.18 This is a large conurbation of the town of Grays and the adjacent urban areas of Chafford Hundred and South Stifford. The southern edge of Grays is located adjacent to the Thames and the area as a whole has undergone rapid expansion in the 20th century.

Key Characteristics

- A low chalk ridge on chalk geology which has been the basis of extensive chalk quarrying since the 18th century, altering its natural topography and creating deep pits in the landform - Hangman's Wood contains particularly old (medieval) chalk mines (The Deneholes Scheduled Ancient Monument).
- The north-east part of the area is overlain by hill gravels which mask the chalk and the areas adjacent to the Thames are overlain by River terrace deposits (also gravels) and alluvium beside the Thames.
- Chalk cliffs are typical where extraction has taken place - Lion Pit reveals the sequence of Pleistocene Thames deposits overlying Chalk, representing the northern edge of the river's floodplain at the time of deposition (a geological SSSI).
- A large urban conurbation of predominantly residential development (developed from smaller individual villages which have expanded and merged over time), with a number of schools, a hospital and recreation grounds interspersed.
- South Grays is a mixed age area including Victorian buildings and post-1980s high rise blocks which form landmarks.
- Housing predominantly dates from the post-war period on the outskirts of Grays and includes the distinctive State Cinema (1938) and Mecca Bingo Hall (a former cinema, constructed in 1939-40).
- Large areas of post war and 20th century housing, including large residential estates in restored quarries at Chafford Hundred.
- Large scale road and rail corridors, and areas of industrial development create significant barriers to pedestrian movement within the area, particularly including access to the waterfront.
- Notable areas of deciduous woodland, particularly around the chalk quarries and at Hangman's Wood (a SSSI and Ancient Woodland).
- Restored quarry sites provide valuable natural character and recreational amenity, with footpaths and information for visitors. Grays Chalk Pit supports rare calcareous flora and invertebrate fauna and is designated a SSSI for these rare assemblages.
- The River Thames to the south provides a valuable setting and sense of place – the location of Grays on the river enables panoramic views along and across the River Thames. There are also some framed views from the town toward the river, for example along High Street.

Components that Contribute to Character

Landscape Component	Description
Geology and Soils	The main part of the area is underlain by chalk, part of the chalk ridge that extends to the west into West Thurrock, Lakeside and Purfleet. The chalk geology is visible on the exposed chalk cliffs such as at Chafford Hundred Nature Reserve. The chalk geology has historically made this area a focus for chalk quarrying and cement production (which requires chalk, clay and a ready supply of water – all available in this area), with chalk pits concentrated around Chafford Hundred – which has since been reclaimed and redeveloped. The north-east part of the area is overlain by hill gravels which mask the chalk, and the areas adjacent to the Thames are overlain by River terrace deposits (also gravels) and alluvium right beside the Thames. One of the disused chalk pits (Lion Pit) is a geological SSSI for its complex sequence of Pleistocene Thames deposits overlying and banked against Chalk, representing the northern edge of the river's floodplain at the time of deposition.
Topography	The area is a low lying ridge between the Thames to the south and the Mar Dyke to the north. The ridge rises to almost 35m between Chafford Hundred and South Stifford, although this area has been worked for chalk altering its natural topography and creating deep pits. Topography falls to the south towards the River Thames, to a low point of 5m AOD at the wharfs of South Grays.
Hydrology	The area is generally devoid of rivers, but the chalk pits and Thames riverside area lie within a flood zone, including much of Grays riverside. The proximity of the River Thames helped to support a successful cement industry, providing a means of transporting the Portland cement into London and all over the world.
Land Cover and Biodiversity	Although the area is predominantly urban, there are notable areas of deciduous woodland (a Priority Habitat), many of which are recognised as Local Wildlife Sites) such as Chafford Gorges Nature Park and at Hangman's Wood (the latter is also a SSSI and Ancient Woodland and contains an important landscape of denehole chalk quarries which are protected as a Scheduled Monument). The disused chalk quarries contain much biodiversity interest: Grays Chalk Pit is designated a SSSI for the diversity of rare flora and invertebrate species that have colonised the pit bottom since quarrying ceased in the 1920s – it has the best concentration and diversity of calcareous invertebrate fauna in Essex¹³. Areas adjoining this are recognised as Local Wildlife Sites for their role in supporting chalk grassland and providing ecological corridors to other pits. Chafford Gorges Nature Reserve has grassland, meadow, ponds and woodland, containing designated Local Wildlife Sites and Priority Habitats for deciduous woodland and chalk loving plants. There is also a network of pathways and information for visitors.
Land Use	The land use is predominantly residential, with a number of schools, a hospital and recreation grounds interspersed. There are also several areas with heavy industry units, factories and depots as well as scattered shops and services including Grays Shopping Centre. Areas of open space are also scattered within the area including restored quarry sites, Hangman's Wood, Grays Park, Grays Beach Riverside Park, sports grounds and allotments.
Settlement Form	Grays does not have a distinctive settlement form although historically it was a linear settlement that developed along the High Street which ran up from the Thames. The town has expanded significantly from this historic core, elements of which remain at the southern edge of the area at the riverside, although it has been redeveloped in the late 20th century. A linear settlement in the location of where the South Stifford area is located today, can be seen on the 1777 historic map, showing the linear settlement extending from South Stifford to West Thurrock. A new settlement at Chafford Hundred was created in the 20th century within former quarries. The Thames provides an important setting to Grays to the south. The open character of the agricultural farmland of H1: East & West Tilbury Open Undulating Farmland is also important to the setting wrapping around the east and north of the area and creating a clear distinction between this area and Chadwell St Mary.

¹³ <https://www.historicengland.org.uk/listing/the-list/list-entry/1111573>

Landscape Component	Description
Built Form and Style	There is a range of building types. Housing predominantly dates from the post-war period on the outskirts of Grays and includes the distinctive State Cinema and Mecca Bingo Hall. The area around Grays Riverside has a more mixed aged pattern of housing with a mixture of older buildings (Victorian) and post-1980s high rise blocks. South Stifford largely consists of Victorian terraced housing and a commercial/ industrial area around Magnet Road. Chafford Hundred consists of 20th century housing estates of mass-produced brickwork (red or beige). Buildings are typically two to three storeys, with taller buildings concentrated in the southern part of Grays, including the waterfront where there are six 15 storey post-war tower blocks, and the town centre. Local vernacular includes red, brown and yellow stock brick, stone walls, whitewashed concrete render, weatherboarding, with slate or red tile roofs. Locally interesting buildings include the Church of St Peter and St Paul (Grade II listed¹⁴), which retains a 13th century north tower; the Grade II* listed Church of St Mary the Virgin on Dock Road, Little Thurrock; Wharf Public House – which is an 18th century house in brick and plaster with red plain tile roof and a timber-framed and weather boarded range¹⁵; Mecca Bingo Club, which is a former cinema constructed in 1939-40 as the Ritz – in brown facing brick with concrete and white plaster dressings¹⁶.
Sense of Place	Generally the sense of place is weak, particularly within residential areas where views to the waterfront or landscape setting are blocked by buildings. The Thames and landmark buildings in the south of the area create a stronger sense of place around Grays Riverside.
Connectivity	Grays town centre has undergone regeneration and contains a pedestrianized high street and shopping centre but major roads and the railway still provide barriers to pedestrian movement, particularly to the waterfront. Access along the waterfront is generally good, apart from in a couple of places where industrial buildings provide barriers to movement. Chafford Hundred railway station has a pedestrian bridge link to Lakeside Shopping centre (within the adjacent character area to the west).
Historic Landscape and Time Depth	The Pleistocene gravels at Grays have yielded a remarkable series of mammalian remains, including those of the wild cat, spotted hyena, wolf, bear, bison, hippopotamus and mammoth¹⁷. Excavations have revealed evidence of prehistoric and Romano-British activity, including evidence related to a medieval rural settlement occupied between the 11th and 14th centuries. The large urban conurbation of today has developed from smaller individual villages which have expanded and merged over time. The Medieval settlement of Grays grew from the narrow High Street which ran north from the River Thames to join the road from Purfleet to West Tilbury, now Orsett Road. The parish church still stands, containing some 13th century fabric and is listed. From the Middle Ages a small port developed but the area remained largely agricultural until the 19th century. 'Scattered houses' for poor law children within Grays, which are relatively rare in Essex, help define the history of the town. A range of historic buildings are scattered within the Old Grays area and along the waterfront. In the 19th and 20th centuries Grays grew along the corridor of the railway and main roads, with houses built for workers of the nearby chalk quarries and brickworks, and industrialisation developed on the riverside. The State Cinema and Mecca Bingo Club (both listed) are reminders of the Major growth occurred across the character area in the post-war period, where population more than doubled. Growth has continued up until the present day with new housing estates on the outskirts, such as at Chafford Hundred (built in the 1990s) and areas of industrial use, in former quarries, the result of regeneration and renewal following construction of the M25.

¹⁴ <https://www.historicengland.org.uk/listing/the-list/list-entry/1147907>

¹⁵ <https://www.historicengland.org.uk/listing/the-list/list-entry/1384993>

¹⁶ <http://www.british-history.ac.uk/vch/essex/vol8/pp35-56>

¹⁷ Urban Character Study

Landscape Component	Description
	In the east, the spread of Grays engulfed the medieval settlement of Little Thurrock. Surviving remnants of the settlement include the parish church of St Mary which has surviving 12-15th century fabric. South Stifford grew from the area around London Road to the west of the railway line in the late 19th century, with jobs focussed on the extraction of gravel and London Clay deposits and surrounding industry. It is also closely associated with West Thurrock to the west.
Cultural Associations	The State Cinema Grade II* listed building is one of the few remaining examples of the picture palaces that were built all over the country. It opened in 1938 and is listed alongside the Mecca Bingo Hall. Grays is named after the French Norman Knight Henry De Gray, who is thought to originate from Grey-Sur-Mer in Normandy, France¹⁸. The Gray family had a 300 year association with the area – and first purchased the manor of 'Thurrock' in 1195 from Isaac the Jew, having gained permission from King Richard the Lionheart¹⁹. Alfred Russel Wallace (1823–1913), naturalist and joint discoverer, with Darwin, of the theory of natural selection, came to Grays in 1871 and built the Dell (1872 – still surviving and protected by listing status) on the heights above the overgrown chalk quarry north-east of the town.
Urban Structure	The centre of Grays has distinct areas, particularly at the riverside, where there are wharves, a riverside path, yacht club and Grays Beach Riverside Park. This area is connected to the main shopping centre of the town, north of the railway station, where there is a shopping centre by the High Street, which follows its original alignment. This area is the historic core of Grays but it has been largely redeveloped, although a few listed buildings such as the church and state cinema remain. Aside from Grays town centre, the rest of Grays has undergone urban sprawl and lacks clear structure. Busy roads and a large supermarket and car park dominate the area just north of the railway station. The visitor centre and Chafford Hundred Nature Park is a key destination but is located within the warren of residential housing estates. The lack of landmarks and similar style of houses and roads creates weak legibility in this area.
Scenic Qualities	Scenic quality is relatively low due to the dominance of 20th century development in mass produced materials and lack of urban structure. Detractors include tower blocks near Grays riverside and industrial buildings. Scenic features include woodland and chalk cliffs at Chafford Gorges Nature Park, the Thames promenade walk and buildings with historic or visual interest including the South Essex College development and historic churches.
Perceptual Qualities	The Thames promenade and riverside walk offer a sense of openness and expansiveness, and much visual interest from moving ships and nearby industry. The riverside and adjacent open spaces – including Grays Beach Riverside Park – are popular assets for the local community. Chafford Gorges Nature Park provides a sense of quiet and peacefulness, with walking trails and information and connection to nature as well as the history and geology of the area. Large expanses of grey concrete within Grays and yellow brick within Chafford Hundred provide a sense of monotony, with noise and visual intrusion from main roads in proximity to popular visitor areas a distraction.
Visual Character and Views	The riverside at Grays enables panoramic views across and along the River Thames (the view from Gray's Beach is noted as a strategic view in Thurrock's Green grid Study). There are views towards the river along north-south orientated roads from elsewhere in Grays, including High Street and from the top of Derby Road Bridge. There are views from higher points in Chafford Hundred such as from Lancaster Road, south towards the Thames and Tilbury Docks, and from higher areas in Grays such as Rectory Road. The chalk pits have enabled views, for example long range panoramic vistas from the top of the quarry sides of the Chafford Gorges.
Landmarks and Skylines	The tower blocks near Grays riverside are local landmark features, as are other larger buildings near the High Street including the college development and Bingo Club. Tilbury Docks (see G2: Tilbury Docks) are landmark features in the

¹⁸<https://www.thurrock.gov.uk/history-on-river-thames/grays-wharf>

¹⁹ <http://www.british-history.ac.uk/vch/essex/vol8/pp35-56>

Landscape Component	Description
	adjacent character area to the east. The former law courts and railway station at each end of the High Street provide aids to legibility in the town centre. The college buildings in the east of Grays – including Palmers College and the former Thurrock Tech College (now demolished and redeveloped as housing) surrounded by trees, form visible elements on the skyline as they are located on higher ground to the west of the Chadwell Ridge (within the adjacent LCA H1: East & West Tilbury Open Undulating Farmland). The woodland within the Chafford Gorges provides a background to views from areas further north such as Aveley and South Ockendon. The Gull lightship, dating from 1860 is a local landmark on the foreshore of the river, now in a dilapidated state

Local Variations in Character

E1.19 Localised areas which vary in character have been identified as follows:

South Grays

E1.20 This area includes the southern and most low-lying part of Grays at the riverside adjacent to the River Thames. This part of Grays is low lying (0-10m AOD) and relatively flat with a sea wall, and has similarities in character to the adjacent developed marsh (see **LCT G: Developed Marsh**). This area is also the historic part of Grays, as shown on the 1777 Chapman and Andre map, which shows development along the southern part of the current High Street to 'Theobalds Wharf' and 'Old Wharf'. Old Town Wharf remains today, and dates back to medieval times.

Grays Town Centre

E1.21 This area includes the main centre of Grays, defined by the High Street, railway station and landmark buildings including the shopping centre, Bingo Club and Council Offices.

Hangman's Wood

E1.22 This area is less intensively developed, and Hangman's Wood is a highly distinctive feature within it. Hangman's Wood and Terrels Heath are designated ancient woodland. The dene holes in Hangman's Wood are a Scheduled Monument and provide important heritage value for the area.

Chafford Gorges Nature Park

E1.23 This area of former chalk pits is distinctive for its natural character. The restored quarry sites provide valuable natural character and recreational amenity, with footpaths and information for visitors. Chafford Gorges Nature Park supports rare calcareous flora and invertebrate fauna and the nearby Grays Chalk Pit is designated a SSSI for these rare assemblages.

Character Evaluation

Landscape Quality/ Condition

- E1.24 Landscape quality (condition) varies across the area. Positive qualities include several tree-lined residential streets which contribute to a 'leafy' suburban character in Grays, and the well-maintained riverside area and Grays Beach Riverside Park, and in Chafford Hundred, Chafford Gorges Nature Park. However, in other areas the townscape is poor quality as a result of street clutter and poor quality public realm around tower blocks. There are abrupt, often harsh edges between industrial and residential land uses. Building facades are often poor quality or decaying and amenity green space is often bland and sometimes poorly maintained. Gateways are usually bland and unwelcoming and transport corridors provide barriers to pedestrian movement. The large expanses of residential development comprising mass produced materials provide a weak sense of place overall.

Past change

- E1.25 Chalk quarrying, 19th century railway construction, industrialisation of the riverside and 20th century urban expansion of Grays have all contributed to the character of this area.
- E1.26 The construction of the M25 in the 1980s led to urban housing regeneration and renewal in the area, and economic regeneration in the 1990s instigated the substantial housing development at Chafford Hundred.

Key sensitivities and valued attributes

- E1.27 The value of some features is recognised through designations, such as the chalk grassland and woodland habitats that are protected through SSSI and Local Wildlife Site designations, Hangman's Wood protected by Ancient Woodland, SSSI and Scheduled Monument status, and historic buildings protected through their listed status. The following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change: The chalk exposures that reveal the underlying geology and river terrace deposits, providing information on the evolution of the Thames and Northern European interglacial sequences.
- The remnant quarry landscape, including the medieval chalk mines in Hangman's Wood which provide a sense of history, and the pits at Chafford Gorges Nature Park which provide important recreational resources and a high quality natural character with biodiversity interest.
 - Areas of rare calcareous flora and invertebrate fauna which provide biodiversity interest and a link to the underlying geology (and therefore a distinct sense of place).
 - Chalk cliffs that provide a sense of place by revealing the underlying geology, and reveal the sequence of Pleistocene Thames deposits overlying Chalk (for example at Lion's Pit).
 - Areas of deciduous woodland and mature trees (including local parks and churchyards) which contribute to the natural and leafy character of the townscape in an otherwise hard urban environment.
 - Historic and listed buildings in Grays town centre and along the riverside including the historic alignment of the old High Street which lend a sense of historic character and time depth to this area.
 - Distinctive buildings from the inter-/ post-war era including the distinctive State Cinema (1938) and Mecca Bingo Hall (1939-40) on the outskirts of Grays which present a sense of history.
 - The riverside walk and physical and visual connections to the River Thames to the south which provides a sense of place – and panoramic views along and across the River

Thames.

- The open and undeveloped character of the surrounding Open Undulating Farmland to the north and east, which provide a connection to the semi-rural and scape beyond.

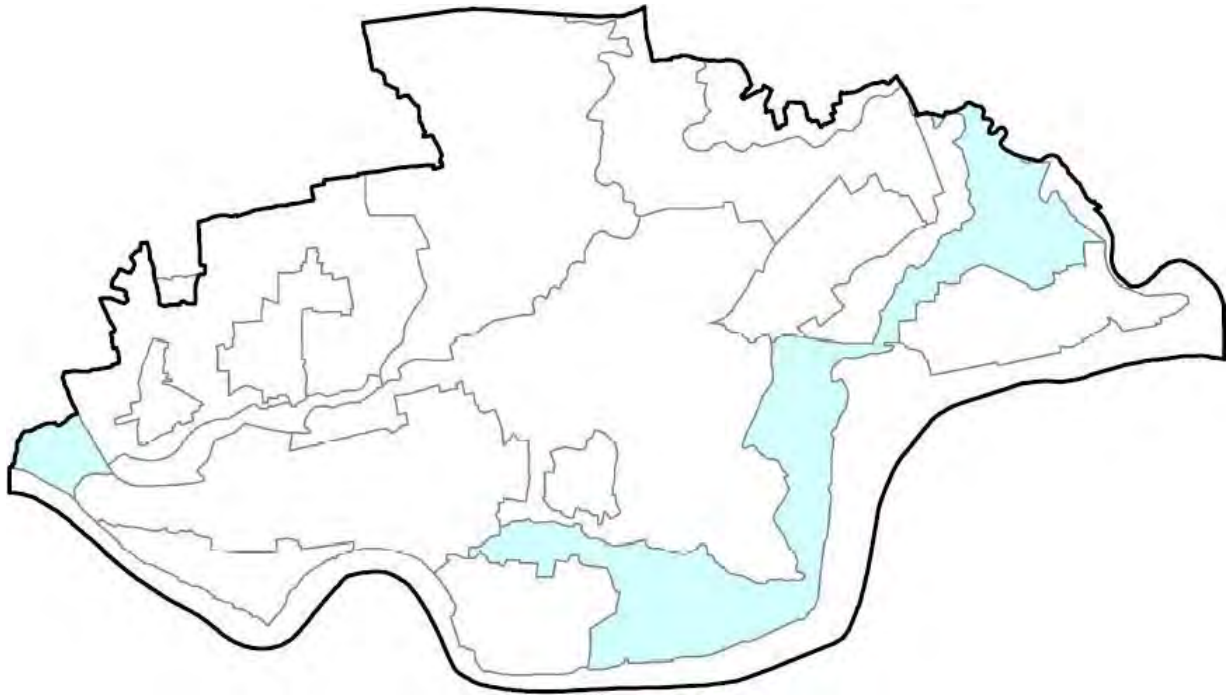
Vision

The vision for this character area is: a vibrant urban centre focussed on the waterfront, with strong gateways, biodiverse green spaces that reflect the underlying geology (including deciduous woodland and chalk grassland), strong pedestrian connectivity between leafy suburban streets, and panoramic views across the Thames.

Guidance to conserve and enhance character

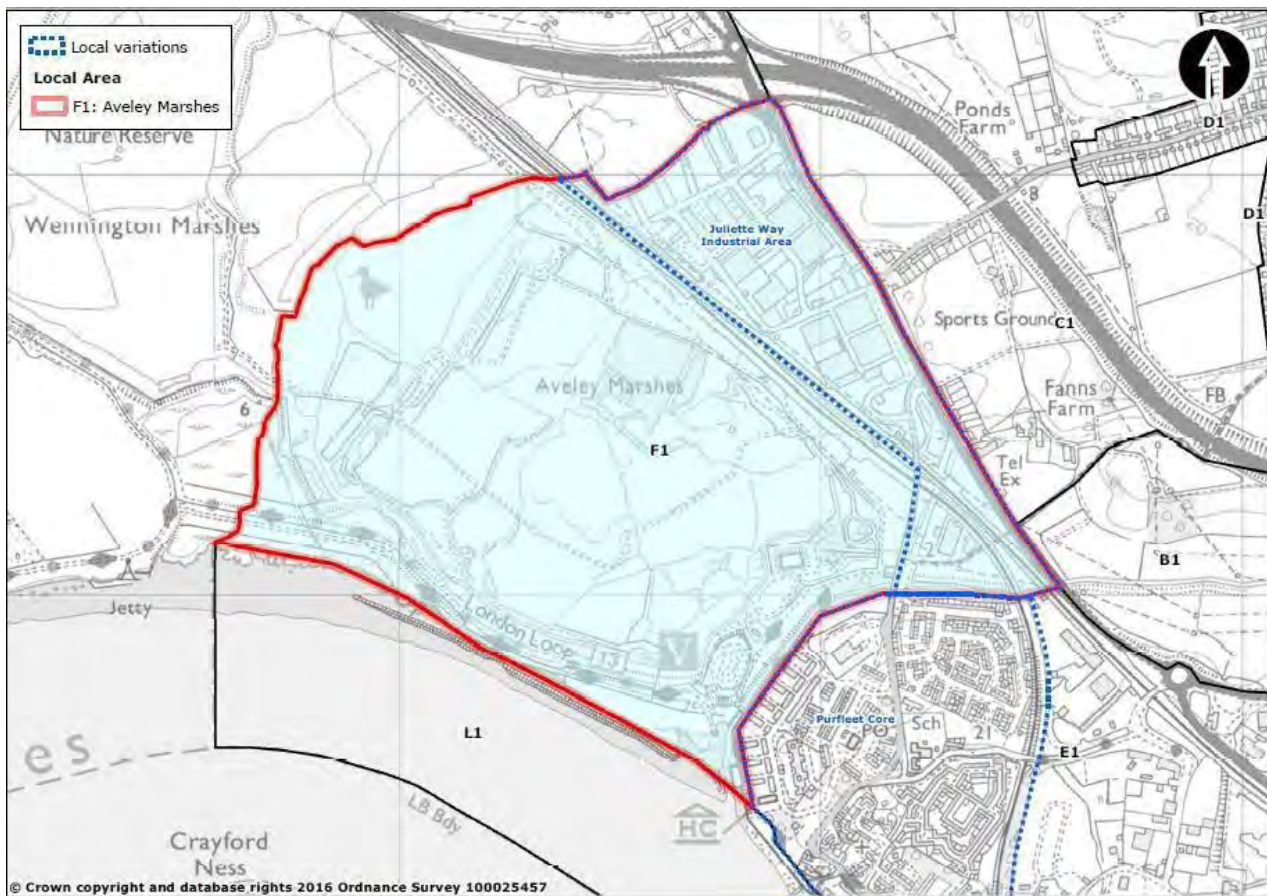
- E1.28 Some regeneration has occurred in Grays but there are many opportunities for enhancing the character and quality across much of this area. The **Thurrock Design Strategy SPD, 2016** should be read alongside this guidance.
- Consider a masterplan and/ or Green Infrastructure strategy to guide future regeneration in Grays town centre and the outer urban area, to enhance the urban structure, legibility and visual interest. This may include rationalising prominent roads and relocating large scale buildings further out of town.
 - Conserve and extend where possible areas of calcareous flora such as grassland and woodland, to provide a link to the underlying geology and sense of place for open areas and areas of deciduous woodland and encourage planting of trees that can become trees of stature to enhance the leafy character of the residential areas and biodiversity interest.
 - Preserve historic buildings within the urban fabric (mostly listed buildings) and ensure that any new built development is sympathetic in the setting to these features, respecting the architectural and historic interest of these buildings.
 - Maintain, enhance and re-create physical and visual connections to the River Thames to the south to enhance sense of place and maintain and enhance public access and visual amenity along the riverside.
 - Maintain a clear interface between urban and rural areas, and clear gateways at entry points to the urban area. Create attractive urban edges, for example at the edge of Grays to the north east, considering use of planting and features typical of the surrounding rural landscape.
 - Consider creation of new local nodes or zones to provide centres of activity and reinvigorate the outer parts of the urban area while improving legibility and sense of place.
 - Improve coherency of the streetscape through use of consistent and locally distinctive materials, furniture and signage.
 - Enhance green links across the conurbation and improve the biodiversity of open spaces, encouraging land cover that would be typical of the underlying chalk (in the west) or gravel (in the east) underlying geology. Aim for multifunctional open spaces, diversifying the range of uses and management regimes.

LCT F: Undeveloped Marsh



- F1.1 This landscape type is defined by the areas of undeveloped marsh that lie alongside the Thames Estuary above the High Water Mark but generally below 5m AOD. The flat and low lying topography is a strongly defining feature of all the marshland areas. This type of marsh forms part of the wider Marshland strategic scale landscape type, an important sequence of marshes on both sides of the River Thames, but is largely undeveloped and this defines it from the Developed Marsh landscape type (LCT G). The undeveloped marsh is typically wild and windswept with relatively dark skies and while some areas have remained essentially unchanged for centuries other areas have been mined and restored as nature parks, often with visitor centres.
- F1.2 There are four geographical areas associated with the 'Undeveloped Marsh' character type in Thurrock:
- **LCA F1: Aveley Marshes**
 - **LCA F2: Tilbury Marshes**
 - **LCA F3: Mucking Marshes**
 - **LCA F4: Fobbing Marshes & Haven Creek**

LCA F1: Aveley Marshes



Location and Boundaries

- F1.3 Aveley Marshes is located on the western edge of Thurrock, between Rainham Marsh (which lies in Havering) and Purfleet. The western boundary of the character area is defined by the administrative boundary of the London Borough of Havering but the open marsh landscape character continues over this boundary. The north-eastern boundary is defined by the A13 (which roughly follows the 5m contour line) beyond which is **LCA C1: Aveley & South Ockenden Farmed River Terrace Gravels**. The south-eastern boundary is defined by the Mar Dyke beyond which lies Purfleet (part of **LCA E1 West Thurrock, Lakeside & Purfleet**). The south-western boundary is located at the high water mark beyond which is the **LCA L1: Long Reach to North fleet Hope**. Although this area is mostly undeveloped, it includes some industrial buildings at Juliette Way which are an anomaly in the otherwise open marsh landscape

Photos

There are long-ranging, panoramic views across the flat marshes with pylons punctuating the skyline and detracting from the naturalistic landscape.



The state of the art visitor centre provides elevated views across the character area and towards the London skyline.



The industrial park in the north abuts the marshes and has an urbanising influence on the perceptual qualities of the landscape.

Character Description

Overview

- F1.4 This area forms an expanse of undeveloped marshland west of Purfleet forming part of the Rainham Marshes RSPB Reserve). It is an area of semi-drained marshland located behind a sea wall that is managed for wildlife and contains drains, winding creeks and pools as well as public footpaths. It has a windswept and remote character and from the sea wall there are wide panoramic views across the Thames.

Key Characteristics

- An expanse of undeveloped open marshland on riverside alluvium grazed by sheep and cattle and located behind a sea wall – a rare survival of medieval reclaimed marshland at the edge of the Thames on the outskirts of Greater London.
- An informal and naturalistic landscape pattern of brackish drains, meandering creeks, pools, lagoons, grazing marshes and reed beds, with visible origins of pre-18th century sinuous and co- axial fields, possibly dating back to Roman times.
- Forms part of the largest remaining expanse of wetland bordering the upper reaches of the Thames Estuary (part of the Inner Thames Marshes SSSI and managed as an RSPB Reserve).
- The RSPB Visitor centre, constructed in 2006, creates a distinctive local land mark.
- A narrow strip of undrained saltmarsh occurs between the sea wall and high water mark.
- The lack of tree cover creates an open and windswept landscape with a feeling of relative wildness and remoteness, despite the views of buildings and pylons outside the area.
- The area is largely undeveloped, but Purfleet Industrial Park (comprising 1960s and 1980s warehousing units) is located on the edge of the marshes.
- Despite the sea wall there are strong connections to the Thames – including wide panoramic views across the adjacent marshes and the Thames estuary from the sea wall and Visitor Centre. There are also memorable views back towards London and its iconic skyline.
- Busy with breeding wading birds in spring and summer, and large flocks of wild ducks in winter, reaching levels of international importance which creates good birdwatching opportunities.

Components that Contribute to Character

Landscape Component	Description
Geology	The underlying bedrock (comprising Thanet sand, Seaford Chalk Formation and Newhaven Chalk Formation) is entirely overlain by superficial deposits of river Alluvium (plus some smaller areas of clay, silt, sand and gravel associated with the Taplow Gravel Formation and Head in the Industrial Area).
Topography	The landform is flat (except for the artificial sea wall) and low-lying below 5m AOD.
Hydrology	The area contains many winding creeks and drainage ditches which drain into the Thames and the Mar Dyke, and the whole area is in a flood zone.
Soils	Soils in the area are deep stoneless non-calcareous and calcareous clayey soils with some local areas of humose or peaty surface horizons. The area is at risk of flooding and the groundwater is controlled by ditches.
Land Use	Predominantly an area of grazing marsh that is managed for wildlife and public access with a visitor centre in the east. Purfleet Industrial Park introduces an industrial land use into part of the area.
Land Cover and Biodiversity	The area is almost totally covered by coastal and floodplain grazing marshes interspersed with small areas of reed beds (both priority habitats) with the exception of the industrial area in the east. These are delineated by small meandering brackish streams and drains with limited tree planting, which gives rise to a naturalistic landscape pattern. The marshes form part of the largest remaining expanse of wetland bordering the upper reaches of the Thames Estuary and as such are designated as the Inner Thames Marshes SSSI. The Inner Thames Marshes support a variety of breeding birds, large numbers of wintering wildfowl, waders, finches and birds of prey, with wintering teal populations reaching levels of international importance²⁰, as well as nationally rare wetland plants and insects. An open, short, tussocky grassland structure has been created on the eastern Wennington and Aveley Marshes where traditional management by sheep and cattle grazing is continued. This contrasts with the tall ungrazed grasslands on the Western Rainham Marshes.²
Settlement Pattern/ Form	Although the Aveley Marshes are largely undeveloped, there is a small industrial park in the east. This comprises a dense concentration of warehousing punctuated by areas of hardstanding and contained on three sides by main roads and a railway. Buildings are located close to the outer edge of the park with limited tree planting which creates exposed edges. This is particularly the case in the north, where the boundary is formed by security fencing.
Building Style	Buildings in the Industrial Park consist of commercial warehouse units made of corrugated steel with low pitched roofs. The larger scale buildings along the A1306 date back to the 1960s with the smaller scale units adjacent to the railway not being constructed till the late 1980s / early 1990s. There is a strong consistency in building style throughout the industrial park with little variation in materiality or colour. The innovative RSPB visitor centre was constructed in 2006.
Historic Landscape and Time Depth	The construction of man-made sea walls along the Thames Estuary dates back at least to the middle ages and probably earlier. Behind these banks the protected marshland was used for grazing by both cattle and sheep. Fragments of the old salt marsh structure can typically be seen in the form of irregular dykes and fleets. In this area there are still visible origins of pre-18th century sinuous and co-axial fields, possibly dating back to Roman times. The first considerable development in the area came in the 1850s when the London, Tilbury and Southend Railway was constructed. Purfleet Rifle Range was then built on Aveley Marshes in the 1920s and the area was used as a military firing range before it was bought from the Ministry of Defence in 2000 by the RSPB and traditional grazing reinstated to return the land to a form of management which has likely been in place for the best part of a thousand years.

²⁰ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001732.pdf

Landscape Component	Description
	There are a number of archaeological survivals from the use of the area by the military including a WWI Blockhouse and Rifle Butts. Extensive prehistoric peat deposits are present beneath the grazing marsh and exposed in the adjacent inter-tidal zone and the area has a very high potential to contain significant archaeological and palaeo-environmental deposits.
Cultural Associations	Rainham Marshes Nature Reserve is a popular destination for avid birdwatchers and in December 2005, a sociable lapwing visited the marshes which attracted large number of visitors to the Nature Reserve. The innovative visitor centre was constructed in 2006 and has been recognised by several building awards due to its BREEAM Excellent rating.
Scenic Qualities	The largely undeveloped nature of the marshes with expansive panoramic views across the Thames and marshes contributes to the scenic quality of the area. Significant numbers of electricity pylons located outside the character area create discordant features on the skyline.
Perceptual Qualities	The undeveloped nature of the marshes lends itself to a sense of naturalness but the presence of the industrial estate, A13 and electricity pylons has a degree of human influence over the area. This landscape is windswept, relatively exposed and with the exception of the industrial estate has a degree of separation from the built-up area which results in a sense of remoteness.
Visual Character and Views	Long distance, panoramic views are available across the marshes as a result of the open character. This includes from the sea wall along and across the Thames to industrial buildings on the opposite bank and to the QEII bridge. Rainham Marshes Visitor Centre includes an elevated viewing window which provides a vantage point across the Thames and marshes and allows for views of the London skyline. Tree planting around the visitor centre limits many easterly views although a number of properties at Purfleet can be seen from the elevated position at the visitor centre.
Landmarks and Skylines	The small hill at the landfill site near to Cold harbour Point, located just outside the character area, is noticeable on the skyline to the west, gently rising out of an otherwise flat landscape. The visitor centre forms a distinctive local landmark in the marshes, constructed from different shades of brown timber cladding.
Landscape Function and Green Infrastructure	Aveley Marshes provides part of the undeveloped gap between Purfleet and Rainham as well as an important nature conservation and recreational resource. It is proposed as a Strategic Semi-Natural Greenspace in the Thurrock Green Infrastructure Plan.

Local Variations in Character

F1.5 Localised areas which vary in character have been identified as follows:

Juliette Way Industrial Area

F1.6 The Juliette Way Industrial Area (also known as Purfleet Industrial Park) is a built up area that contrasts strongly with the undeveloped character of the majority of the marshes. It contains a high density of rectilinear warehousing of varying scale and arranged in a grid layout over the underlying marsh, and is contained by the A1306 and a railway to the west. The concentration of industrial buildings surrounded by major infrastructure forms a readily identifiable area separate from the wider undeveloped marshes.

Character Evaluation

Landscape Quality/ Condition

F1.7 Landscape quality (condition) is influenced by the condition of components. The majority of the marsh is well managed for wildlife and public access and is a harmonious naturalistic landscape in good condition. However the railway, pylons and **Juliette Way Industrial Area** detract from this. The Industrial Area, in particular has eroded the condition of the marshes.

Past change

F1.8 The construction of man-made sea walls along the Thames Estuary dates back at least to the Middle Ages and probably earlier. Behind these banks the protected marshland was used for grazing by both cattle and sheep. Development was first introduced when the railway fragmented the landscape in the mid-1800s but it was not until the 1920s when a rifle range occupied much of the area that structures were first built in the area. Considerable urbanising development was then introduced in the 1960s when Purfleet Industrial Park was developed to the north of the railway and expanded in the 80s. However, traditional grazing was reinstated after 2000 when RSPB acquired the site from the Ministry of Defence.

Key sensitivities and valued attributes

F1.9 The value of the habitats of the grazing marsh is recognised through designation as part of a Site of Special Scientific Interest. These features and others listed below should be given particular consideration due to their particular local value or vulnerability to change:

- The undeveloped nature of the marshland that provides a sense of history (as a rare survival of medieval reclaimed marshland) as well as important habitats that contributes to the Inner Thames Marshes SSSI.
- The narrow strip of undrained saltmarsh occurs between the sea wall and high water mark that also contributes to the Inner Thames Marshes SSSI.
- The naturalistic character of the landscape as a result of its informal landscape pattern and naturalistic habitats.
- The visible remains of pre-18th century sinuous and co-axial fields (possibly dating back to Roman times) which provide a sense of history.
- The state of the art RSPB visitor centre which creates a distinctive local landmark and provides access to the landscape as well as providing a good vantage point for views.
- The open and remote character that provide a sense of escape from the built up urban areas.

- The connections to the Thames including the dramatic panoramic views across the marshes and Thames estuary, and the memorable views towards the iconic London skyline.
- The birdlife which brings a sense of movement to the marshes and creates good birdwatching opportunities.

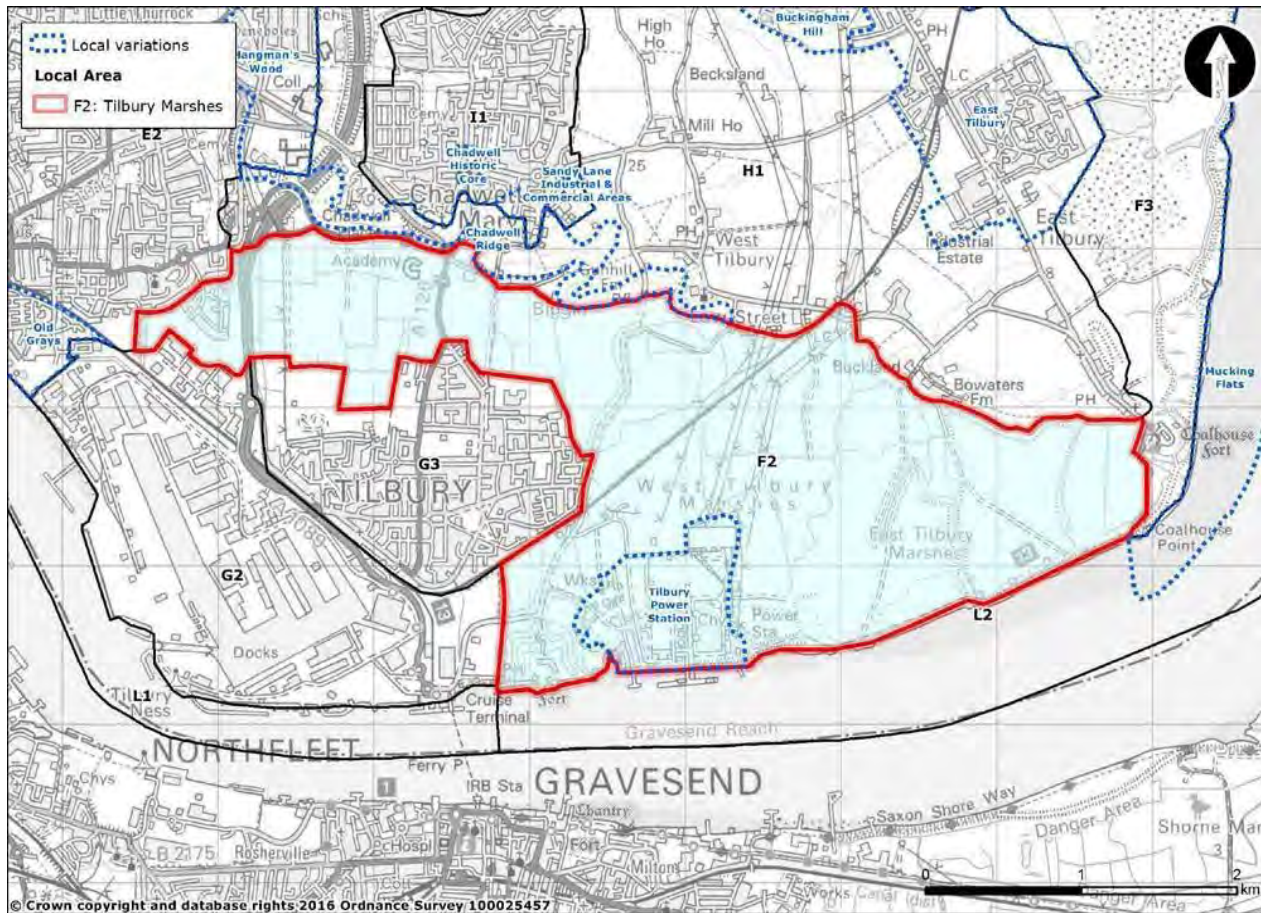
Vision

The vision for this character area is a remote, naturalistic and undeveloped Medieval marshland landscape with a great sense of history that supports rich habitats and provides an accessible escape from urban areas with opportunities to learn about the landscape.

Guidance to conserve and enhance character

- Conserve the undeveloped nature of the marshland and continue to manage the area as grazing marsh to maintain this area as a rare survival of medieval reclaimed marshland. The undeveloped area is not suitable for any large scale built development.
- Ensure that new strategic transport routes do not fragment the landscape by crossing the open marsh.
- Consider restoring the Juliette Way Industrial Area back to grazing marsh in the longer term and in the short term consider providing screening to the industrial park and railway/ roads through planting.
- Conserve the narrow strip of undrained saltmarsh that occurs between the sea wall and high water mark and consider extending this type of habitat through managed retreat and recreation of natural saltmarsh.
- Maintain the naturalistic character of the landscape – resist angular shapes and lines in the landscape.
- Preserve the visible remains of pre-18th century sinuous and co-axial fields (possibly dating back to Roman times) and consider providing interpretation about such features.
- Maintain the RSPB visitor centre as a distinctive local landmark and ensure any other buildings are of equally high quality with equally low impact on the environment.
- Enhance connections to the Thames where possible, by opening up views and physical links to the foreshore.

LCA F2: Tilbury Marshes



Location and Boundaries

- F1.10 Tilbury Marshes wrap around Tilbury, forming the area of open flat drained marshland between **LCA H1 East & West Tilbury Undulating Open Farmland** to the north and **M2 Gravesend Reach to Sea Reach** of the River Thames to the south and includes Tilbury Fort and Tilbury Power Station. The northern boundary is defined by the 5m contour line at the foot of the Chadwell scarp while the southern boundary is defined by the high water mark of the River Thames. The western boundary meets the edge of Grays (part of **E2 Grays, Chafford Hundred & South Stifford**) and the south-western/ southern boundaries are defined by the developed marshland areas of **LCA G2 Tilbury Docks** and **LCA G3 Tilbury**. The area is made up of a number of more localised marshes that merge into once another, from west to east these are: Little Thurrock Marshes, Tilbury Marshes, West Tilbury Marshes and East Tilbury Marshes.

Local Scale

Landscape Character Profile

Landscape Character Area:
F2: Tilbury Marshes

Photos



St James Church at West Tilbury forms a landmark situated on the Chadwell Scarp (the former coastline).



Chimneys at Tilbury Power Station (now demolished) – the site of a new port and power station.



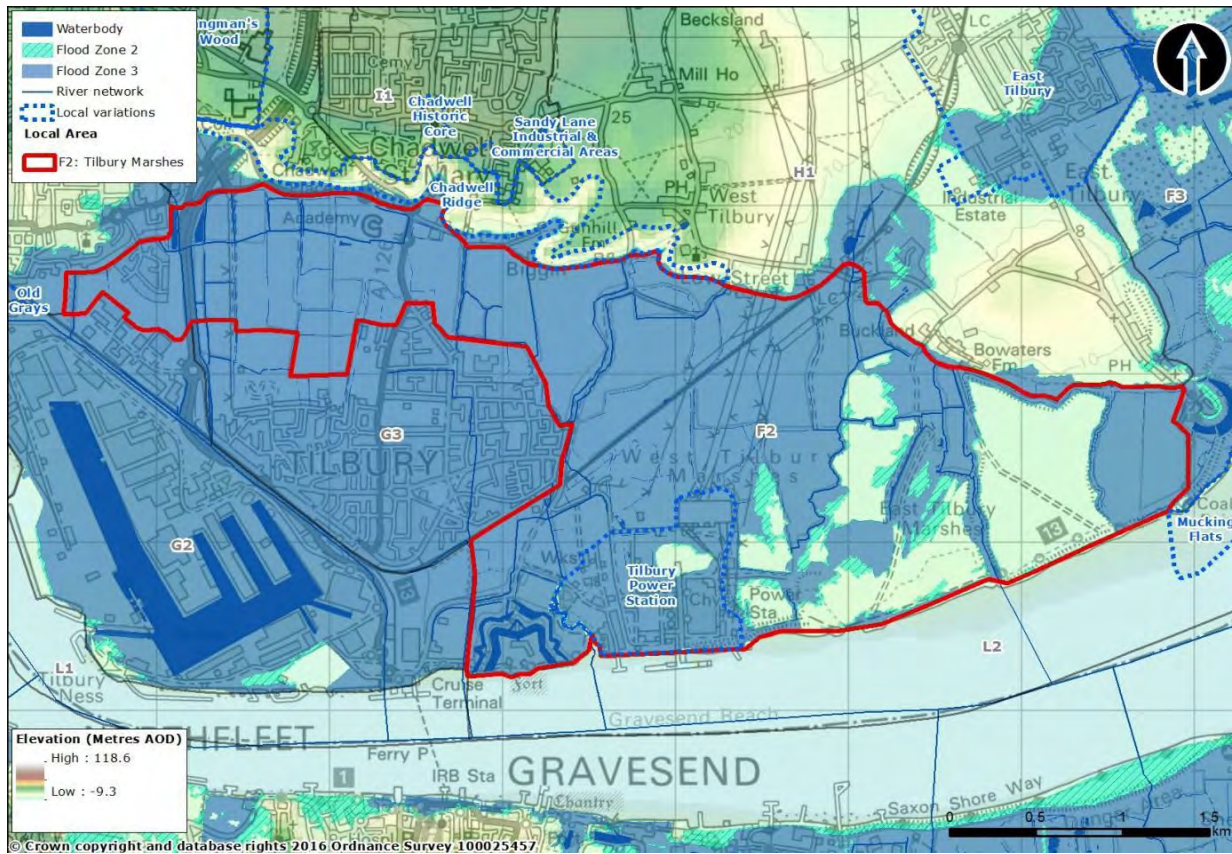
Horse culture, scrubby vegetation and fly tipping around Tilbury Power Station detracts from scenic quality.

Local Scale

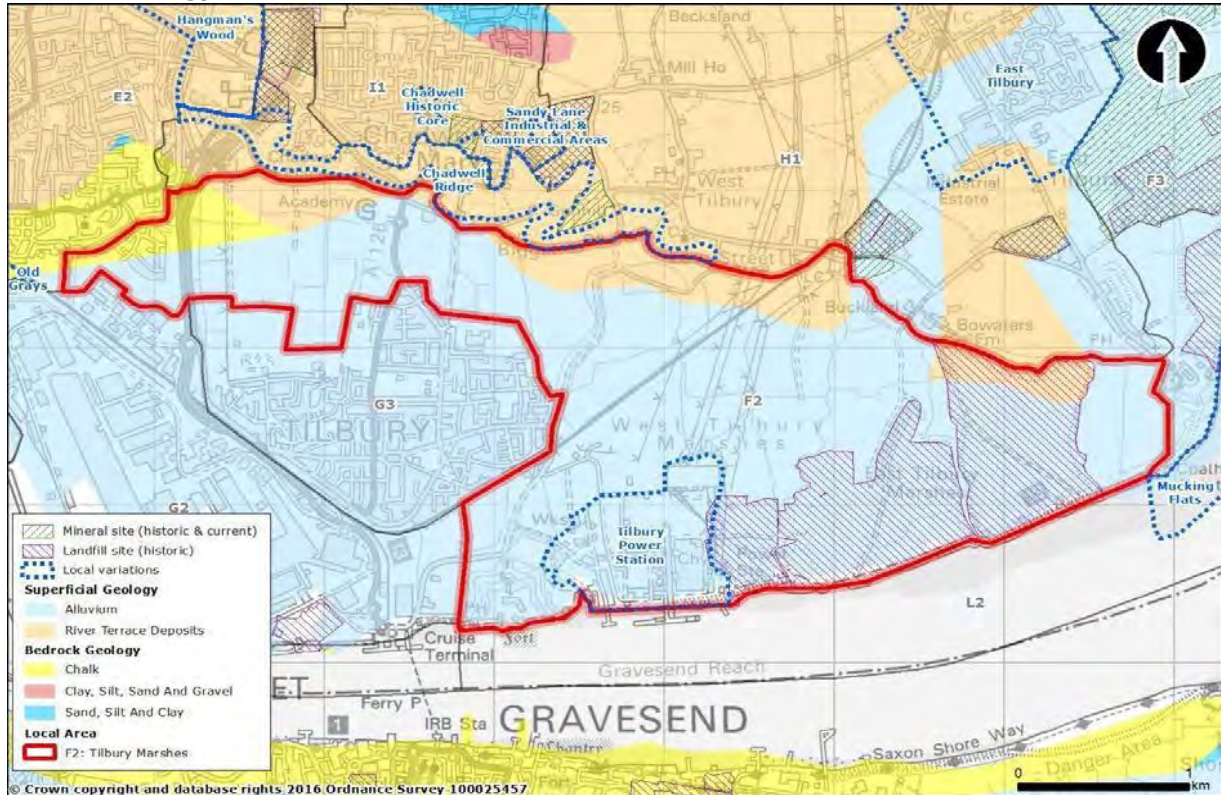
Landscape Character Profile

Landscape Character Area:
F2: Tilbury Marshes

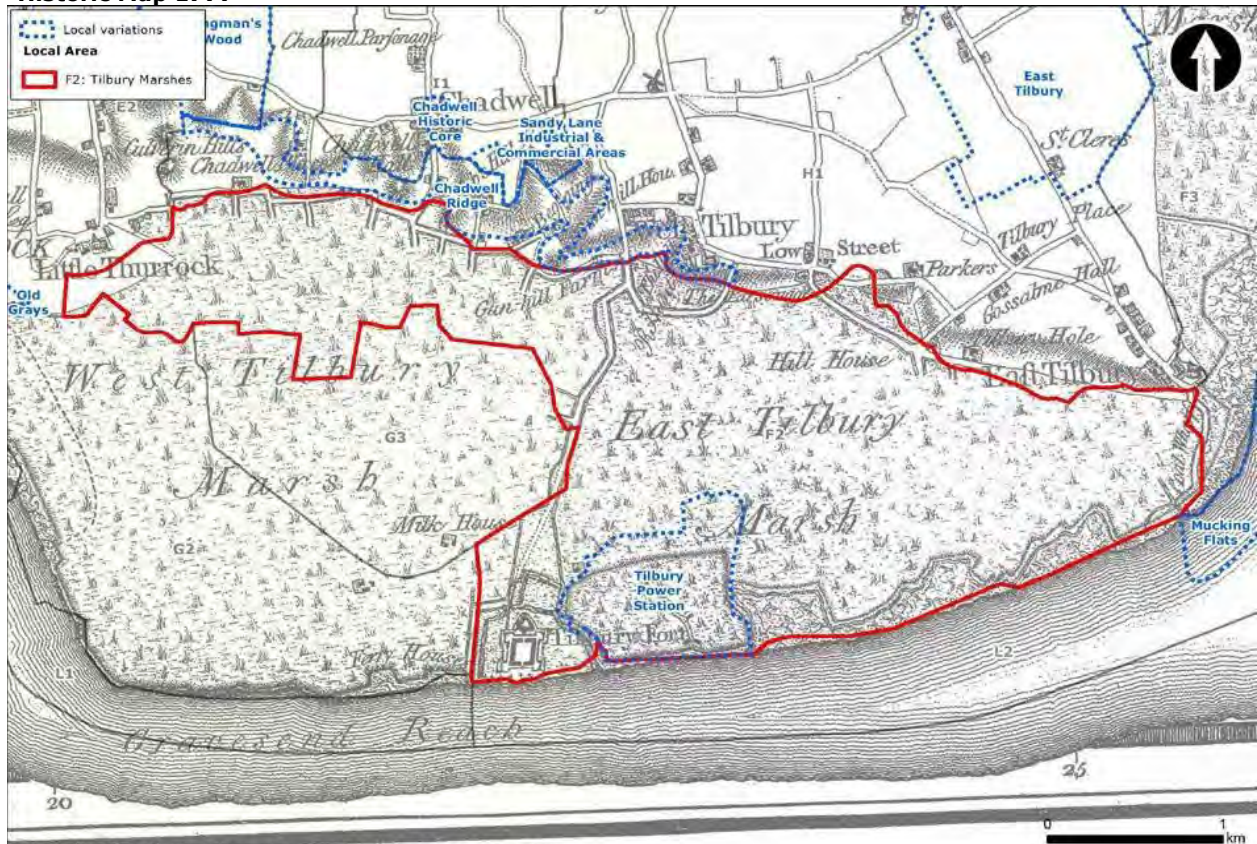
Topography and Drainage



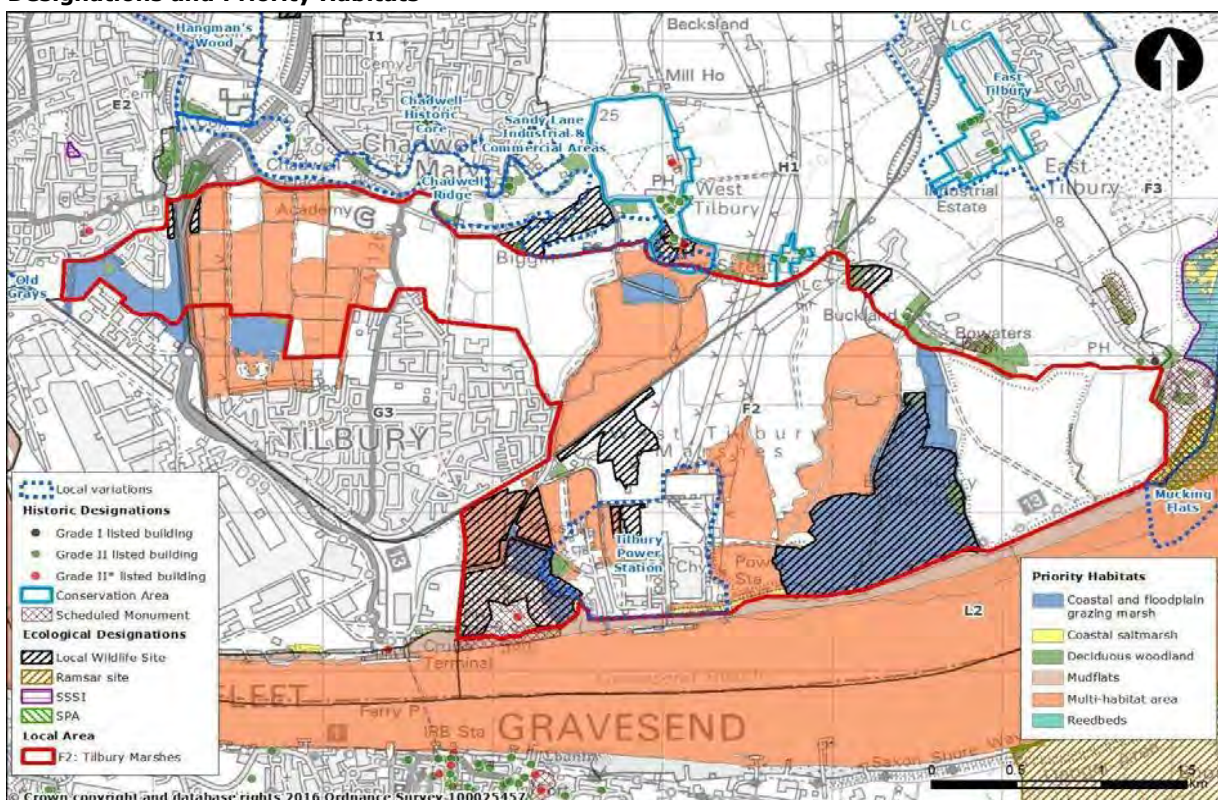
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- F1.11 This character area is a large expanse of flat, low-lying drained farmland enclosed to the north by the Chadwell ridge (the historic coastline). The open and exposed nature of the landscape allows long distance views over the marshes and the sea wall provides opportunities for views over the Thames Estuary. Large scale commercial buildings and overhead pylons have a strong industrial influence in this otherwise largely undeveloped landscape.

Key Characteristics

- Low lying flat and open drained marshland landscape, mostly lying below 5m AOD but with some artificially raised landfill area reaching 10m AOD, all enclosed by a sea wall.
- In use as agricultural land – a mixture of grazing marsh (a priority habitat many areas of which are designated as Local Wildlife Sites) and productive arable fields with drainage ditches marking field boundaries.
- Some of the original irregular field patterns still remain but most have been straightened since the 1950s.
- Broad borrow dykes at the back of the sea wall are distinctive features, occasionally retaining the natural pattern of creeks and fleets; reed beds populate the watercourses.
- Located on the alluvial floodplain of the Thames, deep soils give rise to good agricultural land (except where the ground has been worked for mineral and infilled, or disrupted by industry).
- Historically the area was free of development, and settlement is not characteristic of this area today, with the exception of a small area of late 20th century housing associated at Little Thurrock Marshes.
- Tilbury Fort is an historic defensive site and unique feature due to its four diamond shaped buttresses forming an overall pentagon, and one of the best preserved examples of late 17th century military engineering in England.
- Tilbury Power Station (built in the 1950s and now partly demolished) is the site of a new port and power station – such structures stand out in an otherwise relatively undeveloped landscape.
- The dramatic Chadwell Ridge forms a backdrop to the north – St James Church sits on the top of this scarp, providing a local landmark at West Tilbury.
- The open character means skylines are dominated by any tall structures – including pylons and Tilbury Power Station within the LCA and industrial development outside the area. Despite this, the marshes have a relatively remote character.
- There are views across the Thames from the sea wall and waterside, including from Tilbury Fort from where there are panoramic views towards Gravesend.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock at Tilbury Marshes is formed of undifferentiated chalk associated with the Seaford Chalk Formation and Newhaven Chalk Formation. This is entirely overlaid by Alluvium superficial deposits consisting of clay, silt, peat and sand.
Topography	The landform is large-scale, level and low-lying below 5m AOD. Some areas of land have been artificially raised in the east reaching heights of around 10m AOD. Sea wall defences protect the landscape from erosion and deposition of the river Thames.
Hydrology	Water within the marshes is controlled by a complex system of criss-crossing drains and ditches, some retaining the curves and bends of natural water courses and others with straight lines. These eventually connect with the Thames in the south. The majority of the area is in a flood zone, the exception being areas of artificially raised ground.
Soils	The soils are a mix of deep stoneless non-calcareous and calcareous clayey soils with some local areas of peaty surface deposits. The deep, clayey soils on flat land give rise to the risk of localised flooding. These soils give rise to good to very good agricultural land (although land alongside the river that has been altered by mineral extraction/landfill or industrialised is classed as non-agricultural).
Land Use	Land use is predominantly arable farmland but with smaller concentrations of rough pastures around Grays in the west, the defensive site of Tilbury Fort in the south, the industrial Tilbury Power Station, and mineral extraction/ landfill on East Tilbury Marshes. A small area of housing associated with the settlement of Grays at Little Thurrock Marshes provides a residential land use and the Gateway Academy and associated sports pitches south of Chadwell St Mary contribute an educational land use.
Land Cover and Biodiversity	The dominant land cover is arable farmland in fields defined by water drains and dykes creating a generally large scale irregular field pattern. To the west fields are smaller with rectilinear boundaries. Pasture fields around the power station and fort are characterised by more extensive woody vegetation around field margins or hedge-lined lanes and reflect the poorer quality clay soils and less well drained land. Scrubby vegetation is concentrated around Tilbury Power Station. Coastal and floodplain grazing marshes (a priority habitat) and wet grassland are prevalent throughout the character area and many are designated as Local Wildlife Sites. Reedbeds also populate the watercourses traversing the area. Broad borrow dykes at the back of the sea wall are distinctive features, occasionally retaining the natural pattern of creeks and fleets ² .
Settlement Pattern/ Form	Historically the area was free of development, and settlement is not characteristic of this area today. The only buildings are Tilbury Fort (an historic defensive site), Tilbury Power Station and the housing estate on the edge of Grays (comprising a modern estate of curvilinear roads and dead ends with detached and semi-detached houses). A number of roads and the railway line traverse the area, fragmenting the area.
Building Style	Buildings in the estate on the edge of Grays are typical of 1990s semi-detached and detached houses, built from red and yellow brick with concrete roof tiles. Tile cladding is also common. Tilbury Power Station (now partly demolished) is the site of new large-scale developments including a new power station.
Historic Landscape and Time Depth	The construction of man-made sea walls along the Thames Estuary dates back at least to the middle ages and probably earlier. Behind these banks the protected marshland was used for grazing by both cattle and sheep. Tilbury Marshes was once of these areas that was artificially enclosed and drained to create grazing land – a process known as ‘inning’ ³ . Manor farming practices dating back to the medieval era still survive on Tilbury Marshes in the form of commons. This once allowed local parish farmers to graze livestock for a certain amount of time each year. It was not until the 18th century when unauthorised animals were being released in to the fields to feed

Landscape Component	Description
	which led to the formation of a regulatory body to oversee the legitimate use of the commons. Tilbury Fort has occupied the area since the 16th century. The existing building at Tilbury Fort originated as a British Castle Fortress type Fort with four diamond shaped buttresses forming an overall pentagon, and was used as a defence until the late 19th century. The whole fort site is a Scheduled Monument and the Officers Barracks is a listed building. There has been gradual change due to various pressures including drainage for agriculture (and specifically arable), mineral extraction, landfill and industry. Areas of pasture still exist although most fields have now been converted to arable use (as seen to the north east of Tilbury). Some of the original irregular field patterns still remain but most have been straightened since the 1950s. Tilbury Power Station was built in the 1950s next to Tilbury Fort.
Cultural Associations	In August 1588 during the height of the Spanish Armada scare Queen Elizabeth visited her troops assembled at West Tilbury. Here she gives her famous speech, including "I know I have the body but of a weak and feeble women; but I have the heart and stomach of a King, and a King of England too". The present fort is substantially that constructed in the late 17th century as an artillery fortress designed by Sir Bernard De Gomme. It is one of the best preserved examples of late 17th century military engineering in England. It was further extended and re- armed between 1861 and 1888. During WWII anti-aircraft guns were mounted on its south-east and north-west bastions. It is currently managed by English heritage and is open to the public.
Scenic Qualities	The open and undeveloped character of the pastoral marshes, the presence of grazing marsh and the dramatic Chadwell Ridge that forms a backdrop to the north contribute to scenic quality. Detractors include large scale commercial building, electricity infrastructure, areas of disturbed/ raised ground which interrupt open views, and modern residential development.
Perceptual Qualities	This area is largely influenced by the neighbouring urban area of Tilbury as well as the utilities infrastructure associated with Tilbury Power Station. This includes prominent chimneys and buildings at the power station itself and a concentration of overhead pylons immediately adjacent. Despite this, the marshes have a relatively remote character.
Visual Character and Views	The open and exposed character allows long distance views across the marshes, although built structures interrupt some views. There are views across the Thames from the sea wall and waterside, including from Tilbury Fort from where there are panoramic views towards Gravesend (this is identified as a Strategic View within the Thurrock Green Infrastructure Plan).
Landmarks and Skylines	The open character means skylines are dominated by any tall structures – including pylons and Tilbury Power Station. In addition, industrial development outside the area affects views - distant skylines are characterised by industry including the cranes at Tilbury Docks. The low ridge at Chadwell forms part of a predominantly wooded and undeveloped skyline to the north. St James Church sits on the top of this scarp, providing a local landmark at West Tilbury (just outside the area).
Landscape Function and Green Infrastructure	This area provides an undeveloped gap between Tilbury and Chadwell St Mary, as well as an important nature conservation resource and rural setting to the Thames. It provides an important link between the Thames and inland areas (a number of Strategic Green Links dissect the area, as shown in the Thurrock Green Infrastructure Plan, including a Strategic Bridging Point at Tilbury Power Station). The area is an important nature conservation resource and parts of the area (Tilbury Marshes as well as East and West Tilbury Marshes) are proposed as Strategic Semi- Natural Greenspaces in the Thurrock Green Infrastructure Plan.

Local Variations in Character

F1.12 Localised areas which vary in character have been identified as follows:

Tilbury Power Station

F1.13 The Tilbury Power Station area is noticeably different in character to its surroundings as a result of its built nature (previously Tilbury Power Station which is now giving way to a new port and power station). The area forms an anomaly and modern intrusion in an area of otherwise (almost) undeveloped marshland.

Character Evaluation

Landscape Quality/ Condition

F1.14 Landscape quality (condition) is influenced by the condition of components. Condition varies across the area – areas of intact grazing marsh are in better condition than areas that have been subject to mineral extraction/ landfill, intensive arable farming and industry. The well preserved Tilbury Fort is an area that is in particularly good condition, whereas the area around Tilbury Power Station is in particularly poor condition. The harmonious nature of the marsh is interrupted by these alternative land uses, particularly Tilbury Power Station and the pylons that emerge from the power station.

Past change

F1.15 The first notable change was the 'inining' of the marsh in the middle ages (and possibly earlier) when the sea wall was constructed and the area artificially drained to create grazing land. In the 16th century Tilbury Fort was built and was used as a defence until the late 19th century. Since the 19th century there has been gradual change due to various pressures including improvements for agriculture (and specifically conversion to large scale arable farming), mineral extraction, landfill, industry including the construction of Tilbury Power Station in the mid-20th century and more recently housing (for example on the edge of Grays).

Key sensitivities and valued attributes

F1.16 The value of the remaining areas of grazing marsh is recognised through designation as local wildlife sites and the heritage value of Tilbury Fort is recognised through its designation as a Scheduled Monument (and the Officers Barracks as a listed building). These features and others listed below should be given particular consideration due to their particular local value or vulnerability to change:

- The remaining areas of grazing marsh and medieval commons as well as reed beds and drains marking the original irregular field patterns provide a sense of history and important habitats.
- The broad at the back of the sea wall and remnant natural pattern of creeks and fleets that provide visual interest, a sense of history and wetland habitats.
- The flat topography and absence of development which allows long views across the marshes and reflects its past as an open marsh, distinct from inland areas.
- Tilbury Fort which is one of the best preserved examples of late 17th century military engineering in England and provides a sense of history and feature of visual interest, as well as allowing public access to the riverside.
- The dramatic and rural Chadwell Ridge which provides a sense of history (being the former coastline) and provides an attractive backdrop - St James Church is a sensitive and valued landmark on the ridge.

- The open, naturalistic (where it still exists) and relatively remote character which provides an escape from the urbanised areas.
- The views across the Thames from the sea wall and waterside which provide a sense of connection with the river.

Vision

The vision for this character area is an undeveloped grazing marsh with a unified character, naturalistic and historic drainage features that provide habitats of biodiversity value, and a great sense of history in which Tilbury Fort is a key landmark. An area that provides an accessible escape from urban areas with opportunities to learn about the landscape.

Guidance to conserve and enhance character

- Conserve remaining areas of grazing marsh and reed beds and consider extending this management to other areas.
- Preserve the historic at the back of the sea wall and remnant natural pattern of creeks and fleets that provide a sense of history and wetland habitats.
- Conserve the flat topography and absence of development – consider reverting areas that have been altered by landform changes or development.
- Preserve Tilbury Fort as a feature of visual and historic interest and public access / educational opportunities associated with it. Maintain the public access between Tilbury and Coalhouse Forts along the coastline.
- Maintain the rural and generally undeveloped appearance of the Chadwell Ridge and ensure St James Church remains a prominent feature on the skyline (nothing should compete with this for prominence). Preserve views to this church and the church in Chadwell St Mary.
- Strengthen the open, naturalistic and relatively remote character and enhance public access where possible, with provision of facilities for enjoyment of the landscape, to ensure the area can provide an escape from the urbanised areas of Thurrock.
- Enhance pedestrian access to the marshes from the adjacent settlement edges connecting with Tilbury Fort and other areas of interest.
- The views across the Thames from the sea wall and waterside which provide a sense of connection with the river
- Consider enhancing harsh urban edges of development in the developed marshland landscape types with planting to soften the urbanising influence and create a rural backdrop

Photos



There are long views across the River Thames (in this example to the London Gateway development where the River meets the North Sea).

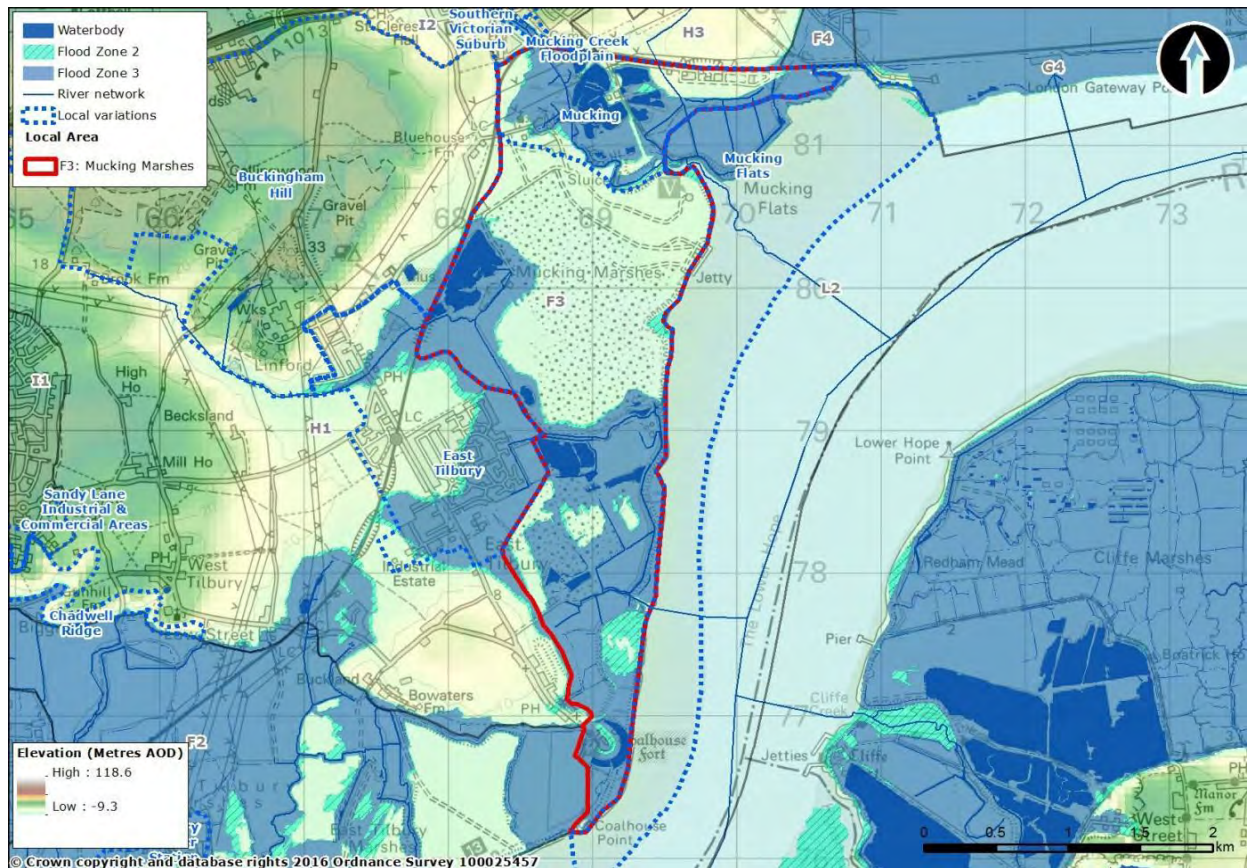


There is a strong sense of naturalness around the meandering Mucking Creek.

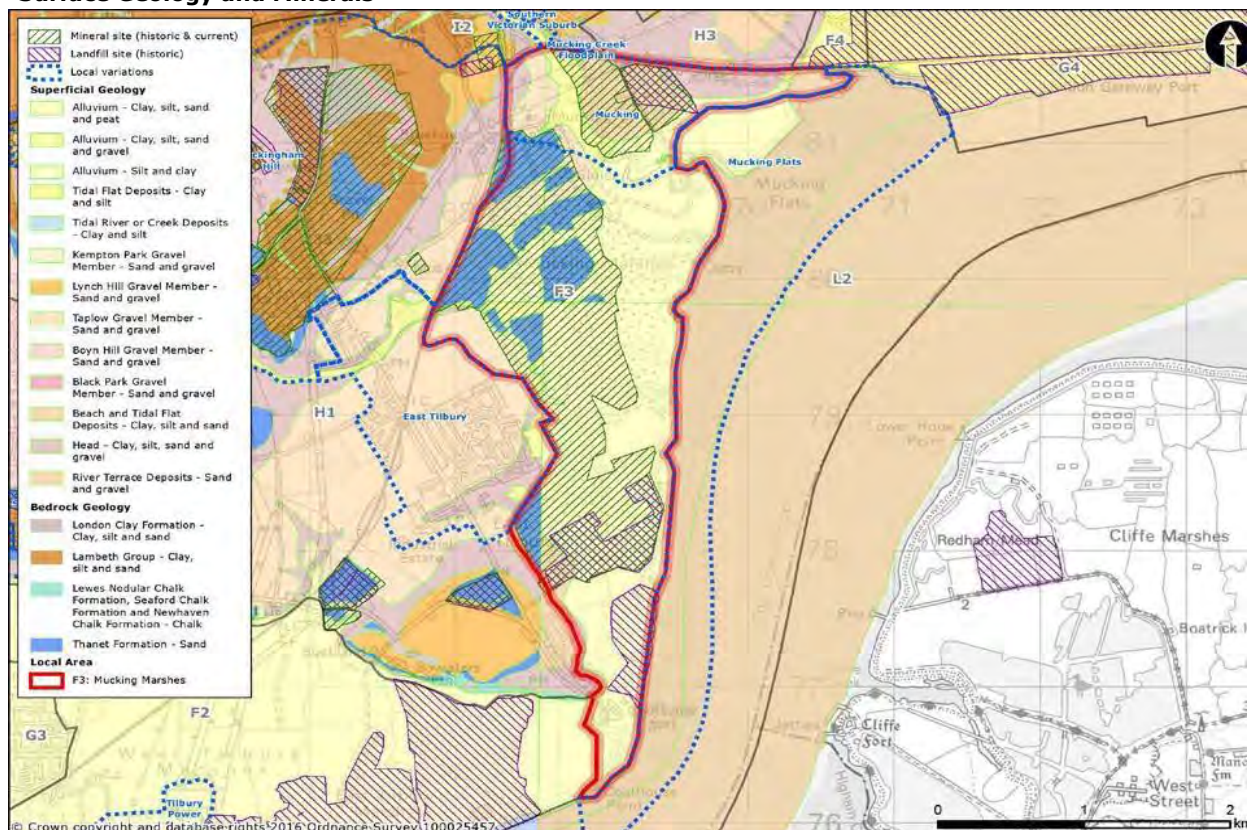


Coalhouse Fort is an historic defensive site and popular visitor attraction – from here passing ships are a regular sight.

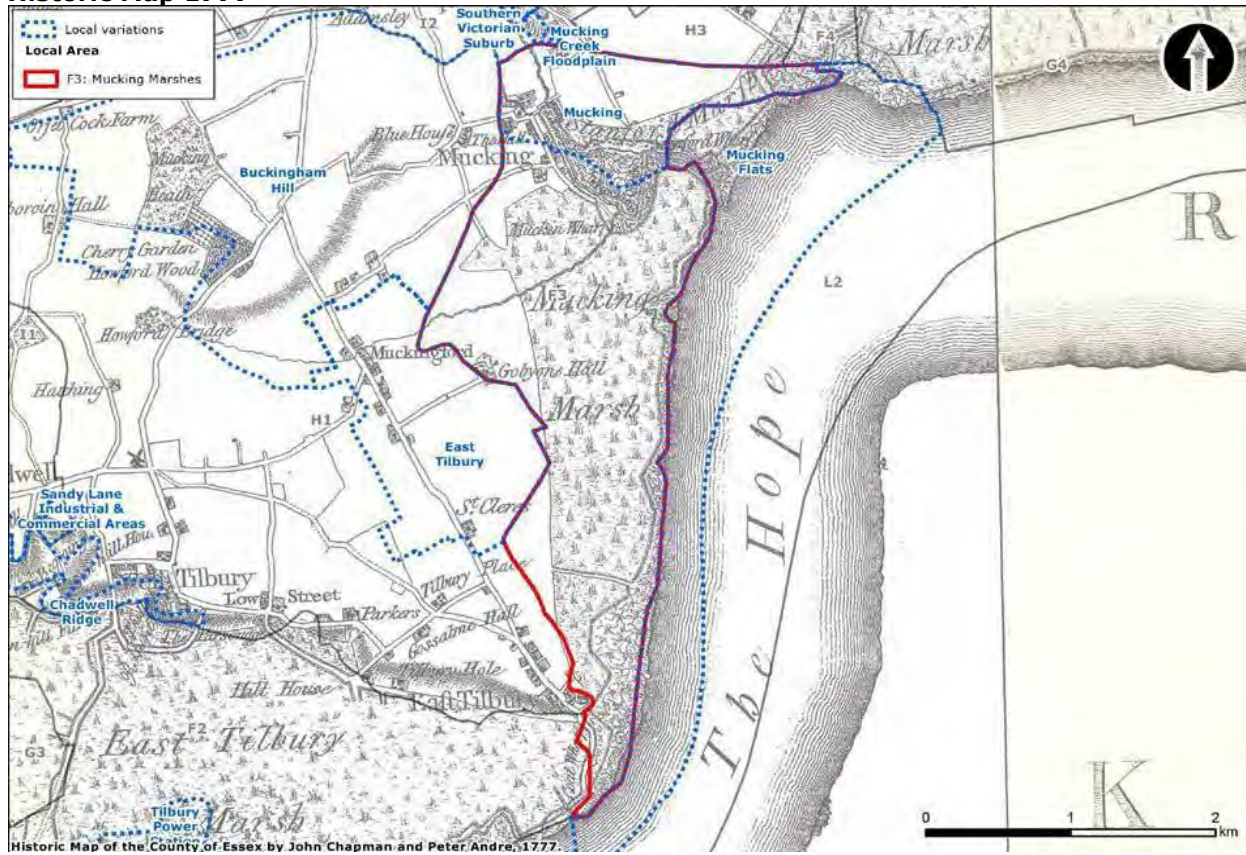
Topography and Drainage



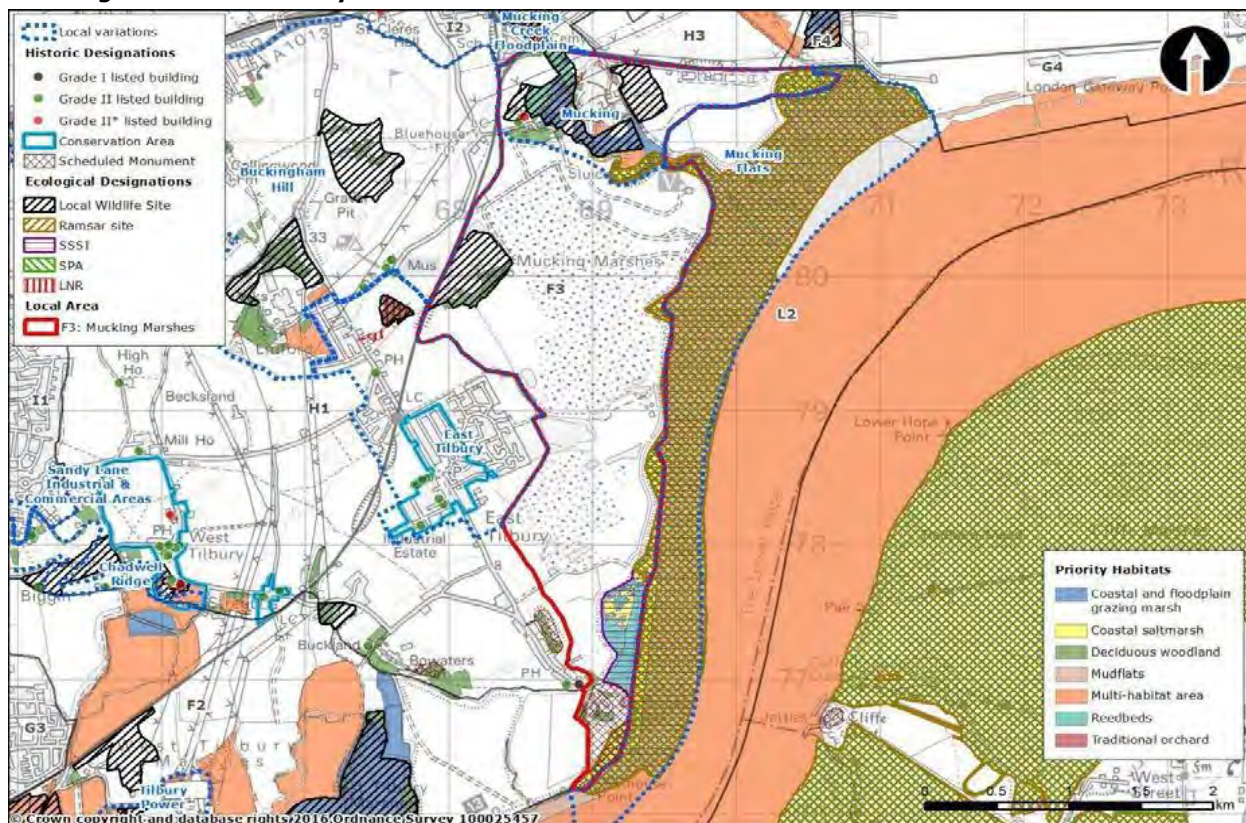
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- F1.17 This is an area of drained marshland with a landfill site in the centre (one of the largest in Europe and currently being restored to become part of the Thameside Nature Park). The area was formed by the 'inning' of the marshland many years ago to create grazing land. It is a flat, windswept landscape with wide panoramic views across the Thames from the sea wall and coastal edge. Industrial structures outside the area influence views. Mucking Creek is a distinctive feature, with its course meandering through the marshland to the Thames, and the small marshland hamlet of Mucking lies on its banks.
- F1.18 Mucking Marshes are located between the Tilbury Marshes and the London Gateway Port development, between the high water mark of the Thames and approximately the 5m contour line. Below the high water mark is the River Thames (**LCA L2 Gravesend Reach to Sea Reach**). Above the 5m contour line to the north is **H3 Fobbing Ridge Open Undulating Farmland** and **LCA I2 Stanford-le-Hope & Corringham** and to the west is **LCA H1 East & West Tilbury Open Undulating Farmland**.

Key Characteristics

- Low lying flat and open drained marshland landscape, mostly lying below 5m AOD but with some artificially raised landfill areas, all enclosed by a seawall.
- Predominantly restored grazing marsh over old mineral extraction sites, some still being actively restored.
- Drained by a series of artificial drains and naturalistic watercourses – Mucking Creek is notable for its meandering course and floodplain grazing marsh/ reed bed habitats (priority habitats identified in the UK Biodiversity Action Plan).
- Large areas of mineral extraction sites have been restored to nature reserves (now open water bodies and wetland habitats of reed beds, marsh, rough grassland and deciduous wet woodland), but some 18th century field patterns survive e.g. just north of Coalhouse Fort.
- Notable areas of naturalistic areas of undrained saltmarsh along the coast, outside the sea wall, and in the lower reaches of Mucking Creek – these form part of the Mucking Flats & Marshes SSSI and Thames Estuary and Marshes SPA and Ramsarsite.
- Settlement is not characteristic of this area today, except for the small marshland hamlet of Mucking that lies alongside Mucking Creek.
- Coalhouse Fort is an historic defensive site, built in the 1860s to protect against seaborne attack (a scheduled monument).
- The circular wooden visitor centre at Thurrock Thameside Nature Park is reminiscent of the 19th Century Martello towers and has a roof-top viewing deck enabling views across the marshes.
- Despite man's influence on the landscape, the area has a strong sense of remoteness and relative wildness: this is an exposed and windswept rural landscape with relatively dark skies especially along the coast.
- There are wide panoramic views along and across the Thames Estuary, particularly from the sea wall and coastal edge (e.g. from Coalhouse Fort).
- Views are influenced by industrial structures in adjacent character areas such as chimneys at Tilbury Power Station and container cranes at London Gateway Port.

- The area forms a link between the Thames and inland areas. It is also important for nature conservation and recreation (there is a public footpath that runs almost the length of the sea wall).
- The landfilled areas are proposed as Strategic Semi-Natural Greenspaces in by the Thurrock Green Infrastructure Plan.

Components that Contribute to Character

Landscape Component	Description
Geology	The underlying bedrock includes sand, silt and clay of the Thanet Formation, small bands of Lambeth and London Clay Formation in the north and undifferentiated chalk makes in the south. However, the whole area is overlaid by alluvium (formed of clay, silt, peat and sand). Mucking Flats are more influenced by the fluctuations in the river level comprising beach and tidal flat deposits of undifferentiated clay silt and sand. There is an outcrop of River Terrace Deposits made up of sand and gravel around Mucking Creek in the north.
Topography	Mucking Marshes is generally flat and low-lying, between the high water mark and the 5m contour. However, land around Mucking Creek is more undulating. The landform has also been altered by mineral extraction (sand and gravel pits) and landfill. Coalhouse Fort is built on an artificial low mound at 5m AOD. There is also an artificial sea wall along the coast.
Hydrology	The area is drained by a series of drains and watercourses – including Mucking Creek which meanders along a natural course into the Thames and a stream which drains from Linford into artificial drains in the marsh. There are also some open waterbodies associated with former gravel pits. Most of the area is in the flood zone, except from artificially raised areas.
Soils	The soils at Mucking Marshes comprise a mix of non-calcareous and calcareous clayey soils with some local areas of peaty surface deposits. The deep, stoneless soils on flat land results in the risk of localised flooding. The land is of moderate to good agricultural quality (although land that has been altered by mineral extraction/ landfill and the area around Coalhouse Fort is classed as non-agricultural).
Land Use	Mineral extraction sites (now open water bodies or landfill) occupy a large portion of the drained marshland area. Other uses include agricultural uses on the areas of remnant grazing marsh, and defensive and recreational (at Coalhouse Fort and the nature reserves). There are naturalistic areas of undrained marsh along the coast, outside the sea wall.
Land Cover and Biodiversity	Landcover includes floodplain grazing marsh, reed beds (for example along Mucking Creek) and saltmarsh (outside the sea wall and in the lower Mucking Creek) – these are all priority habitats identified in the UK Biodiversity Action Plan. The unenclosed saltmarsh outside the sea wall and the lower part of Mucking Creek form part of the Mucking Flats & Marshes SSSI and Thames Estuary and Marshes SPA and Ramsar site. The areas of open water and wetland habitats of reed beds, marsh and rough grassland on the former mineral sites are recognised as Local Wildlife Sites. Some of these are surrounded by deciduous woodland. A large area of managed realignment was undertaken as part of the London Gateway development and the area is now managed as Stanford Wharf Nature Reserve. There is also some deciduous woodland and parkland style gardens at Coalhouse Fort. The remainder of the area comprises pasture on drained marsh and rough grassland on landfill sites.
Settlement Pattern/ Form	The area has historically been absent of built development except for the rural marshland hamlet of Mucking beside Mucking Creek. Coalhouse Fort is the most notable built feature in the area, a defensive structure on the edge of the Thames. There is also a circular wooden visitor centre at Thurrock Thameside Nature Park (opened 2012) with a roof-top viewing deck.
Building Style	The few buildings within the hamlet of Mucking comprise large properties arranged along a single road and made up of yellow brick, render and weather-boarding, some of which date back to the 19 th century. Coalhouse Fort was designed for its defensive role and comprises an arc of granite-faced casemates, reinforced by iron shields.

Landscape Component	Description
	The visitor centre Thameside Nature Park also has a round form (reminiscent of the 19th Century Martello towers along the South Coast) and is externally clad in timber.
Historic Landscape and Time Depth	The construction of man-made sea walls along the Thames Estuary dates back at least to the middle ages and probably earlier. Behind these banks the protected marshland was used for grazing by both cattle and sheep. Mucking Marshes was once of these areas that was artificially enclosed and drained to create grazing land –a process known as ‘inning’²¹. Mucking was once a substantial Anglo-Saxon settlement. It thrived in the Victorian era but now has less than 100 inhabitants and historic buildings including the St John the Baptist Church have been converted to private dwellings. A group of buildings in the centre are listed including the Church and Vicarage. Coalhouse Fort was built in the 1860s at the south of Mucking Marshes to protect against seaborne attack. It served this function in a variety forms before being decommissioned at the end of World War II. The fort has been restored for educational purposes and its surroundings have been turned into parkland. It is designated as a scheduled monument. In the early 20th century mineral extraction took place, altering the topography of the area and resulting in open water and landfill sites. More recently some of these areas have been converted to nature reserves and areas with public access, such as the Thurrock Thameside Nature Park. Some areas of grazing and 18th century field patterns survive e.g. just north of Coalhouse Fort.
Cultural Associations	The landfill site at Mucking Marshes was one of the largest in Europe utilising the former gravel quarry and created an artificial mound from years of waste compaction. Barges and trucks carrying loads for landfill are a familiar sight in the landscape, as too are flocks of birds once the waste containers are emptied. A large part of the site now forms Thameside Nature Park which was created in partnership with The Cory Environment Trust, DP World Port and the Essex Wildlife Trust to help establish and protect wildlife and bird populations. The visitor centre at the heart of the wildlife park was designed by van Heyningen and Haward Architects and was opened by Sir David Attenborough who described the building as ‘revolutionary’.
Scenic Qualities	Despite the significant area covered by the Mucking Marshes Landfill site (which is currently being restored), the area has a relatively high scenic quality as a result of the successful restorations schemes, the natural meandering course of the Mucking Creek, coastal salt marshes, Coalhouse Fort and the long views from the sea wall and coastline. Detractors include the areas of disturbed and raised ground which interrupt open views.
Perceptual Qualities	Despite man’s influence on the landscape, the area has a strong sense of remoteness and relative wildness. This is an exposed and windswept rural landscape, except around Mucking where trees provide enclosure.
Visual Character and Views	There are wide panoramic views along and across the Thames Estuary, particularly from the sea wall and coastal edge. The view from the Coalhouse Fort is noted as a Strategic View in the Thurrock Green Infrastructure Plan. The visitor centre at the Thameside Nature Park comprises an open roof deck area with complete 360 degree, slightly elevated views. Raised land at landfill sites interrupts views to the Thames.
Landmarks and Skylines	Coalhouse Fort provides an important historical landmark. The large mound created as a result of decades of landfill forms a notable ridge in views across the marshes. The skyline is punctuated by prominent industrial structures in adjacent character areas such as the container cranes at London Gateway Port.
Landscape Function and Green Infrastructure	The area forms a link between the Thames and inland areas. It is also important for nature conservation and recreation (there is a public footpath that runs almost the length of the sea wall). The landfilled areas are proposed as Strategic Semi-Natural Greenspaces in by the Thurrock Green Infrastructure Plan.

²¹ Essex Coastal Landscape Character Assessment

Character Evaluation

Landscape Quality/ Condition

- F1.19 Landscape quality (condition) is influenced by the condition of components. Although a large part of the area has been modified through mineral extraction and landfill, most has been restored and is generally well managed. The remnant grazing marsh and the parkland around Coalhouse Fort are well-managed and are in a good condition. Detracting features include areas of raised landfill (which interrupt the long views across the marshes) and three riverside cranes on the edge of the landfill site.

Past change

- F1.20 The first notable change was the 'inning' of the marsh in the middle ages (and possibly earlier) when the sea wall was constructed and the area artificially drained to create grazing land. Coalhouse Fort was built in the 1860s and in the early 20th century mineral extraction took place. Since the 1950s the focus has been on restoration with many of the sites reinstated as nature parks and nature reserves or used to accommodate landfill.

Key sensitivities and valued attributes

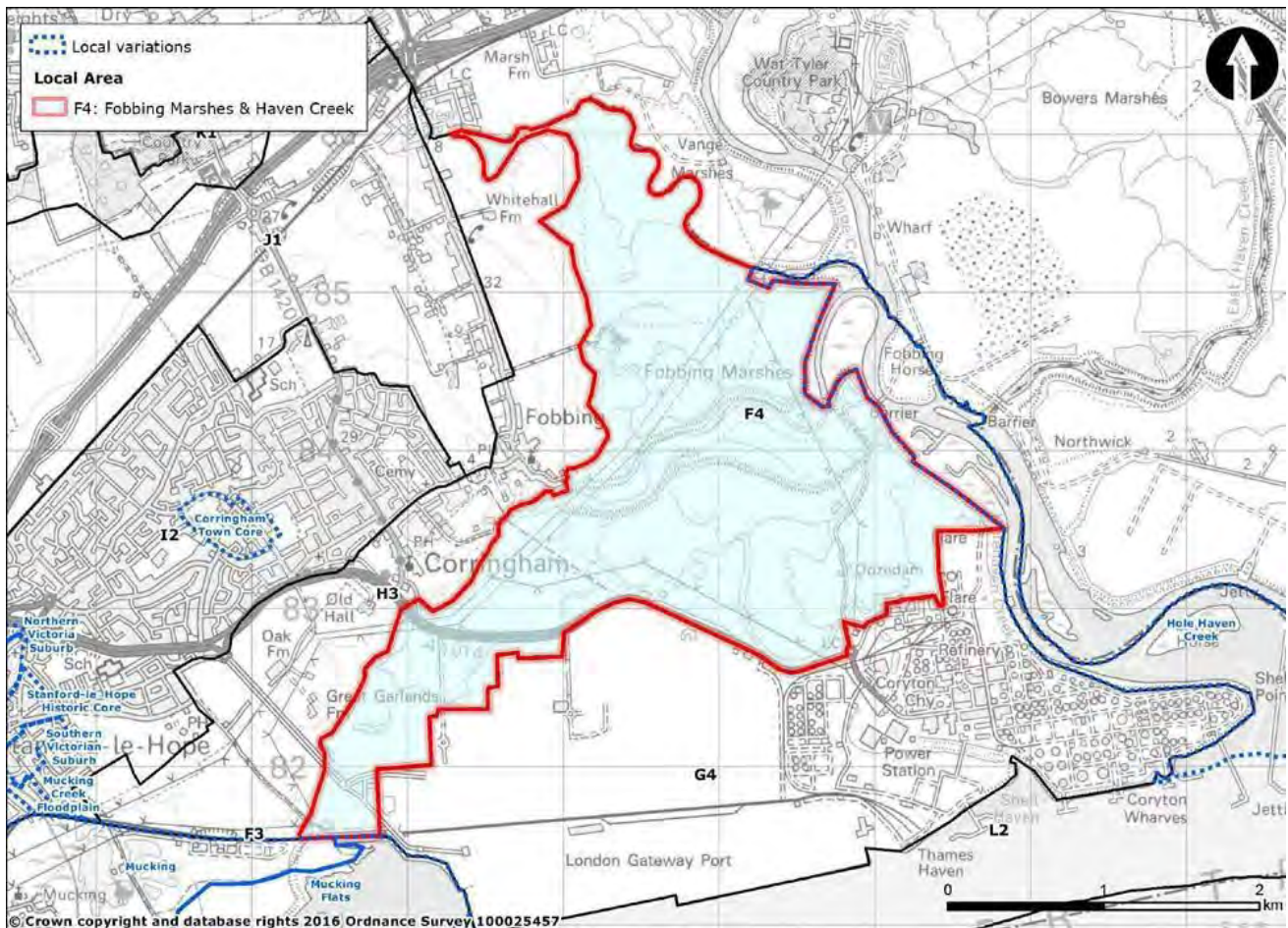
- F1.21 The value of some features is recognised through designations, such as Conservation Areas, Scheduled Monuments and Local Wildlife Sites. These features and others listed below should be given particular consideration due to their particular local value or vulnerability to change: The remaining areas of grazing marsh and medieval commons as well as reed beds and drains marking the original irregular field patterns provide a sense of history and important habitats.
- The remnant floodplain grazing marsh, reed beds and undrained salt marsh along the coastal edge which provide a sense of history and important habitats (all are priority habitats).
 - The drains and watercourses, and in particular the meandering course of Mucking Creek which provides a remnant of the historic landscape, valuable habitats and contributes to scenic quality.
 - The remnant grazed pasture and 18th century field patterns e.g. just north of Coalhouse Fort which provide a sense of history and contribute to scenic quality.
 - The typical absence of settlement which reflects the history of the area as marshland.
 - The historic rural hamlet of Mucking which provides a sense of history and contributes to the scenic quality of the landscape.
 - Coalhouse Fort and its setting that is valued for its historic significance and recreational value. It is also a landmark feature.
 - Thurrock Thameside Nature Park including the circular wooden visitor centre that enables enjoyment of the landscape and views over Mucking Flats and the Thames Estuary.
 - The sense of remoteness and relative wildness as a result of the absence of settlement and main roads which provides an escape from the built up parts of the Borough.
 - The wide panoramic views along and across the Thames Estuary, particularly from the sea wall and coastal edge, which provide a sense of space and visual interest.

Vision

The vision for this character area is an undeveloped grazing marsh with a unified character, with naturalistic features and habitats that provide biodiversity value, and a sense of history in which Coalhouse Fort is a key landmark and visitor attraction. An area that provides an accessible escape from built up parts of the Borough, with opportunities to learn about and enjoy the landscape.

- Conserve the remaining areas of floodplain grazing marsh, reed beds and undrained salt marsh along the coastal edge and consider extending these where possible.
- Maintain the naturalistic and meandering course of Mucking Creek and its naturalistic habitats.
- Preserve the remnant grazed pasture and 18th century field patterns for future generations (e.g. north of Coalhouse Fort).
- Maintain the general absence of settlement (except for the strategically placed historic rural hamlet of Mucking beside Mucking Creek) – and ensure that the sense of remoteness and relative wildness is maintained to provide a sense of escape from urban areas.
- Conserve the rural character of Mucking and the green lane that provides access.
- Continue to conserve Coalhouse Fort as a landmark feature of historic significance with public access and interpretation facilities.
- Continue to restore landscapes previously affected by mineral extraction for nature conservation and recreation – consider reverting sites to marshland where landform allows and extend the historic grazing land management.
- Continue to protect the ability to experience views along and across the Thames Estuary, particularly from the sea wall and coastal edge.
- Consider extending public access the full length of the riverside to connect the visitor centre with Coalhouse Fort, and provide circular walking routes.

LCA F4: Fobbing Marshes & Haven Creek



Location and Boundaries

- F1.22 The Fobbing Marshes & Haven Creek is located between the high water mark and the 5m contour line at the eastern end of Thurrock. Above the 5m contour line to the west is the low ridge of **LCA H3: Fobbing Ridge Open Undulating Farmland** and below the high water mark to the east is Holehaven Creek which forms part of **LCA L2: Gravesend Reach to Sea Reach**. To the south is an area of developed marsh (**LCA G4: London Gateway Port**) – the boundary being marked by the edge of the urban area which coincides with the A1014 along part of its length. The undeveloped marsh character extends over the administrative boundary into Basildon and Castle Point to the north and east forming part of the South Essex Marshes Environmentally Sensitive Area.

Photos



Undeveloped and naturalistic grazing marsh with large areas of reed beds along watercourses.

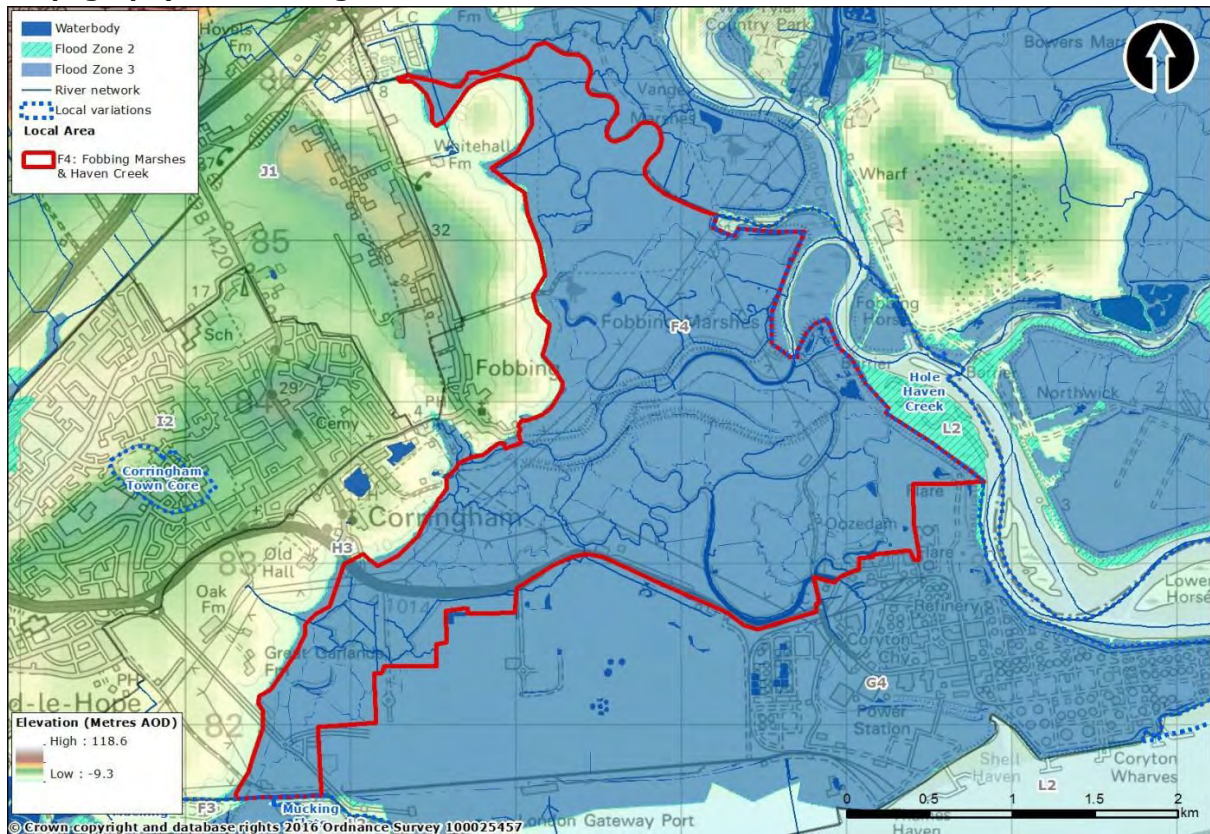


An open and expansive landscape of grazed marsh with views to the Langdon Hills forming a wooded backdrop in the north east.

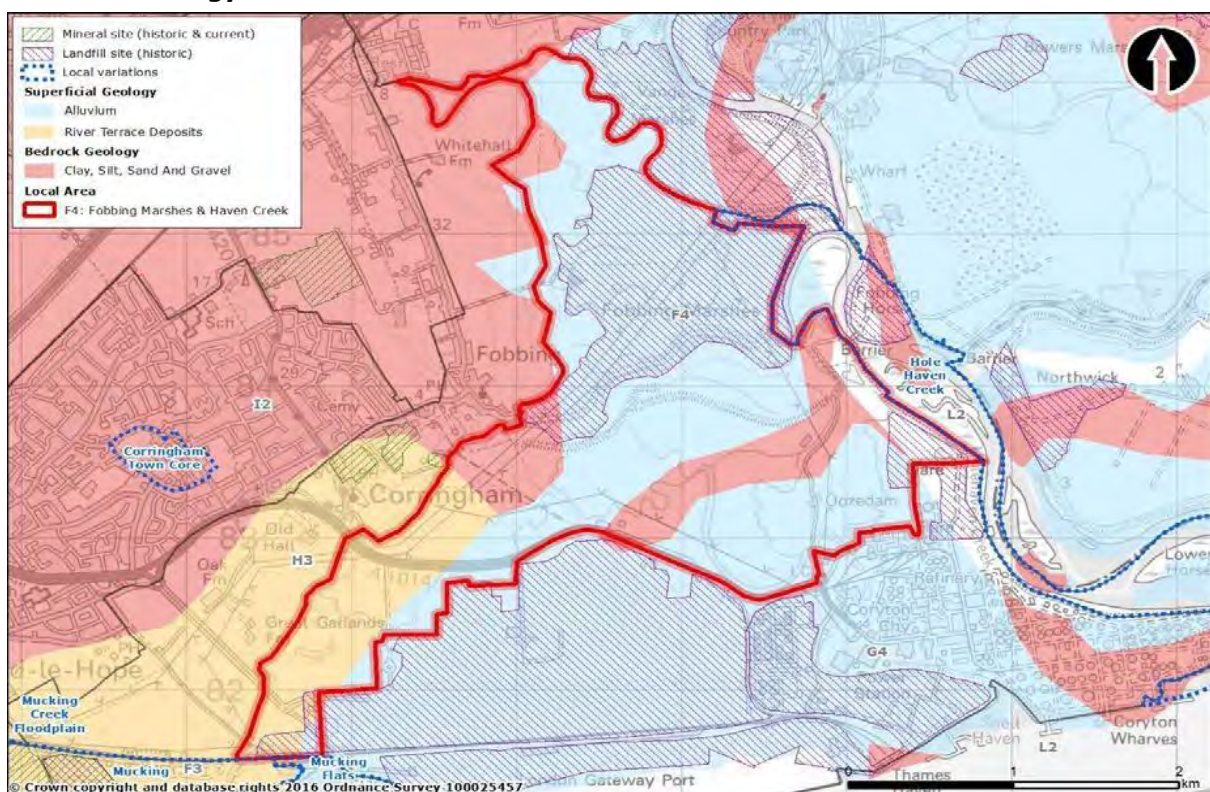


The area is undeveloped but is influenced by development in the adjacent London Gateway Port.

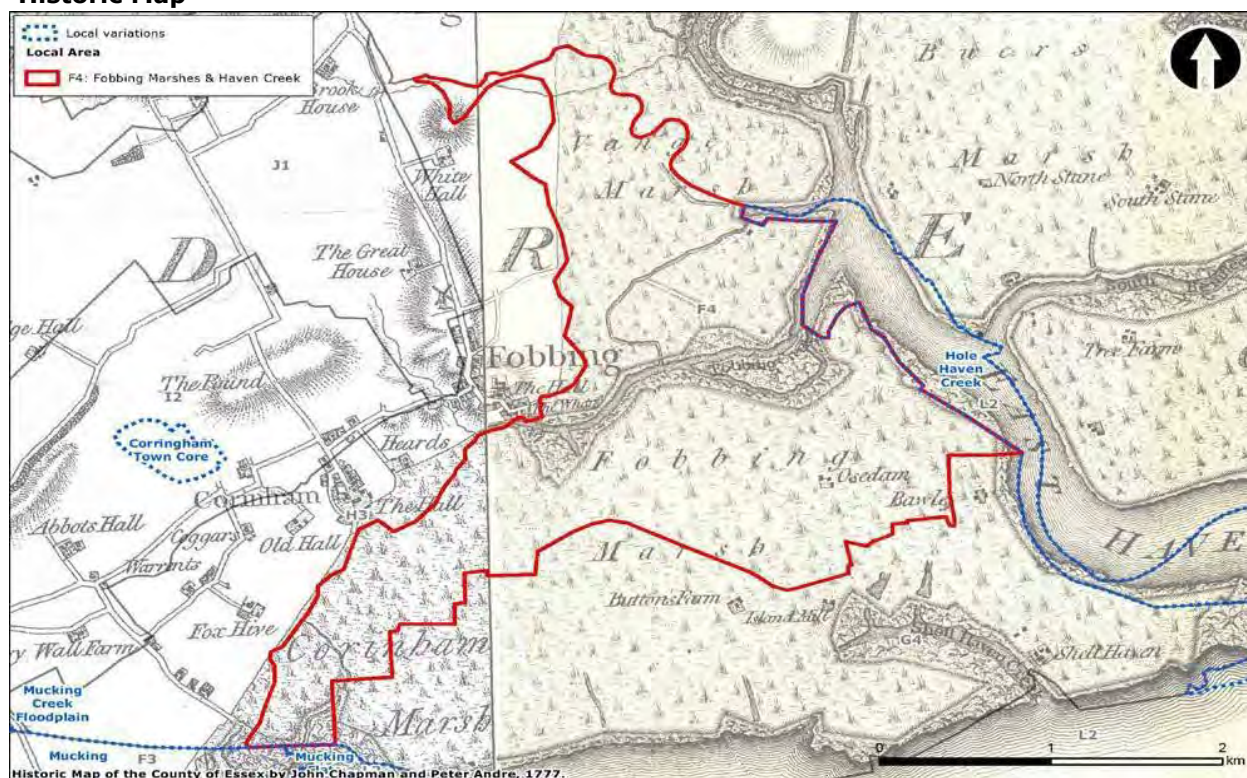
Topography and Drainage



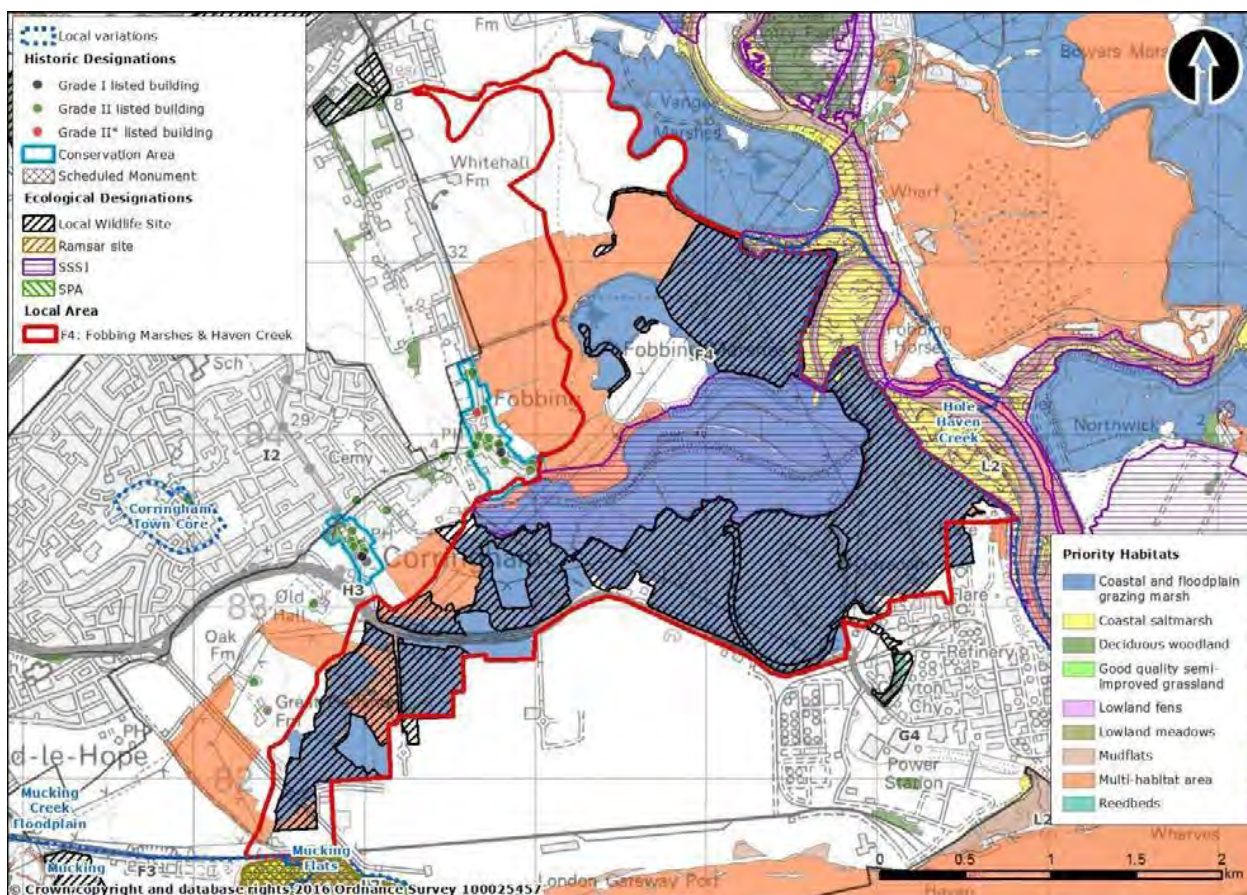
Surface Geology and Minerals



Historic Map



Designations and Priority Habitats



Character Description

Overview

- F1.23 This is an area of flat, open, windswept and exposed grazing marsh with distinctive meandering creek and fleets. Most of the area is grazed but there are pockets of arable farmland close to Fobbing. The wooded hills to the north provide a rural setting while the structures associated with London Gateway Port provide industrial influences to the south.

Key Characteristics

- Low lying flat and open drained marshland landscape on tidal flat deposits, lying below 5m AOD and enclosed by a sea wall that follows the edge of Holehaven Creek.
- Drained by a pattern of distinctive meandering creeks and fleets leading to amorphous and winding field boundaries, with remnant meanders and ox-bow lakes identifiable in aerial photos.
- Land cover is predominantly coastal and floodplain grazing marsh with some areas of arable farmland close to Fobbing.
- Ecologically-rich areas of unimproved coastal grassland supporting a rare assemblage of maritime grasses and herbs being designated as Vange and Fobbing Marshes SSSI.
- Development and roads are typically (and historically) absent from the marshes. However, today the A1014 passes through the area and small industrial areas and overhead electricity lines which are prominent in the open landscape.
- A windswept and exposed landscape with a strong sense of naturalness and relatively dark skies. The sound of reeds in the wind creates a calm and tranquil experience.
- Influenced by industry in adjacent areas – the constant hum of substations around Coryton Refinery detract from the sense of tranquillity and oil cylinders, cranes and warehouse development at London Gateway influenced views to the south.
- The Langdon Hills form a well-wooded, gently rolling skyline provides a rural backdrop to the north and St Michael's Church situated on the small, wooded ridge at Fobbing provides a landmark to the west.
- A World War II Oil QF bombing decoy remains in the centre of the marshes, designed to protect the Shell Haven oil refinery.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock of Fobbing Marshes is predominantly characterised by clay, silt and sand associated with the London Clay Formation and a small area of the Lambeth Group in the south. This is entirely overlain by Tidal Flat superficial deposits comprising clay and silt.
Topography	The area is low-lying and flat with little variation in height, between 0-5m AOD.
Hydrology	The area is drained by a pattern of distinctive meandering creeks. They flow from the sloping land in the west to the adjacent Hole Haven Creek in the east. The whole area classified as a flood zone.
Soils	Like the other undeveloped marshes within Thurrock, soils in this area comprise deep stoneless non- calcareous and calcareous clayey soils with some local areas of surface peat. The agricultural quality of soils is influenced by distance from Holehaven Creek with closest to the creek being Grade 4 and those further inland Grade 3 (and some areas of Grade 2).
Land Use	Land use is predominantly pastoral farmland although arable farmland is found around Fobbing. There are also areas of rough grazing.
Land Cover and Biodiversity	Land cover is predominantly coastal and floodplain grazing marsh (a priority habitat in the UK Biodiversity Action Plan) interspersed with drainage dykes and creeks, forming part of the Vange and Fobbing Marshes Site of Special Scientific Interest. There are also areas of arable crops around Fobbing. The Vange and Fobbing Marshes SSSI supports a diversity of maritime grasses and herbs which form an outstanding assemblage of nationally rare plants as well as ideal habitats for a number of invertebrates and birds. The SSSI is almost entirely surrounded by Corringham/Fobbing Marshes Local Wildlife Site.
Settlement Pattern/ Form	Development is typically (and historically) absent from the marshes. However, there is a small modern industrial area on the outskirts of Corringham, a small industrial area on the A1014 and a three overhead electricity lines crossing the marshes which bring an urban influence.
Building Style	The few buildings in the area are modern industrial style and made up mass produced materials such as modern red and yellow brick, corrugated steel and concrete tile or corrugated roofs.
Historic Landscape and Time Depth	The construction of man-made sea walls along the Thames Estuary dates back at least to the middle ages and probably earlier. Behind these banks the protected marshland was used for grazing by both cattle and sheep. These marshes (comprising areas known as Corringham Marsh, Fobbing Marsh and Vange Marsh) were artificially enclosed and drained to create grazing land –a process known as ‘inning’⁴. These marshes have been subject to relatively little human intervention over the years (the Historic Landscape Classification identifies most of the area as coastal drained enclosure) and only recently have relatively small areas undergone major agricultural modification (marked as 20th century agriculture on the HLC). Fobbing Creek was once navigable right up to Fobbing, connecting the village with the Thames. In the 1940s technological advancements saw the nearby shipping industry go into decline and the damming of Creek to save on its maintenance. Despite this, its historic course remains largely intact. The area is also the location of a number of archaeological features including a World War II Oil QF bombing decoy in the centre of the marshes which is listed as a scheduled monument as well as some earthwork counter walls and flood defences.
Cultural Associations	The WWII bombing decoy is documented in wartime records as ‘Shell Haven, Fobbing’ and was designed to protect the Shell Haven oil refinery and is the only one left standing out of twelve that were built in Great Britain.
Scenic Qualities	The naturalistic character of much of the marshes, the meandering creeks and views to rural backdrops of hills provide a relatively high scenic quality. However, there are a number of features that detract from this including the modern industrial buildings, areas of intensive arable land, overhead powerlines and industrial buildings in adjacent areas.
Perceptual Qualities	This open area of marshes is windswept and exposed with a strong sense of naturalness and little human influence. The area also has dark skies, particularly in

Landscape Component	Description
	the Vange Marshes. The sound of reeds in the wind creates a calm and tranquil experience, although there is the constant hum of substations around Coryton Refinery located just outside the character area.
Visual Character and Views	The flat and open landscape enables long-distant, panoramic views across the marshes and Holehaven Creek to rural backdrops. However, these are regularly punctuated by pylons as well as the oil cylinders, cranes and warehouse development at London Gateway to the south. The undeveloped marshes are an important feature in views the Fobbing ridge in the adjacent character area.
Landmarks and Skylines	The Langdon Hills form a well-wooded, gently rolling skyline and provides a backdrop to the marshes in the north while structures within the BP Coryton Refinery are define the skyline to the south. Landmarks are generally absent from the marshes themselves. However, pylons are prominent. St Michael's Church situated on the small, wooded ridge at Fobbing provides a landmark to the west.
Landscape Function and Green Infrastructure	The marshes provide a rural and undeveloped area between Corringham to the west, Basildon to the north and South Benfleet/ Canvey Island to the east. They also provide an important nature conservation and recreational resource and part is proposed as Strategic Semi-Natural Greenspace in the Thurrock Green Infrastructure Plan.

Character Evaluation

Landscape Quality/ Condition

- F1.24 Landscape quality (condition) is influenced by the condition of components. The open expanse of grazing marsh is generally in good condition. However, some areas have been converted to arable which detracts from the harmonious pastoral character. Industrial areas tend to be in poor condition and detract from the landscape. The rural skylines to the north and west contribute to scenic quality, but overhead power lines and industry in adjacent areas detract from the scenic quality.

Past change

- F1.25 The first notable change was the 'inning' of the marsh in the middle ages (and possibly earlier) when the sea wall was constructed and the area artificially drained to create grazing land. Fobbing Marshes have remained relatively unchanged (compared to other undeveloped marsh areas in Thurrock) with minimal development or mineral extraction/ landfill operations. Fobbing Creek was dammed and allowed to dry out in the 1950s and some areas have been subject to 20th century agricultural intensification including conversion of pasture to arable. The arrival of the Coryton Oil Refinery in the 1950s altered the character of the area to the south. The introduction of the A1014 to Shell haven and pylons leading from Tilbury Power Station in the 20th century also influenced the landscape.

Key sensitivities and valued attributes

- F1.26 The biodiversity value of the grazing marsh and wetland grassland is recognised through SSSI and Local Wildlife Site designations. The heritage value of the World War II bombing decoy is recognised through Scheduled Monument status. These features and others listed below should be given particular consideration due to their particular local value or vulnerability to change:
- The areas of remaining unimproved coastal grassland that are relatively rare and provide important habits as well as a great sense of history.
 - The distinctive meandering creeks and fleets that provide a sense of time depth and naturalness, and the associated wetland habitats that are important for biodiversity.
 - The general absence of settlement and roads which contributes to the sense of wildness

and remoteness and relatively dark skies.

- The flat and open character of the marshes which allow long-distance, panoramic views across the undeveloped marshes and to adjacent wooded skylines (to the north).
- The numerous public rights of way traversing the area connect Fobbing with Basildon in the north east and enable enjoyment of the landscape.
- Views to St Michael's Church on the adjacent Fobbing Ridge which provides a landmark and contributes to scenic quality.
- The World War II bombing decoy which contributes to a sense a sense of time depth.

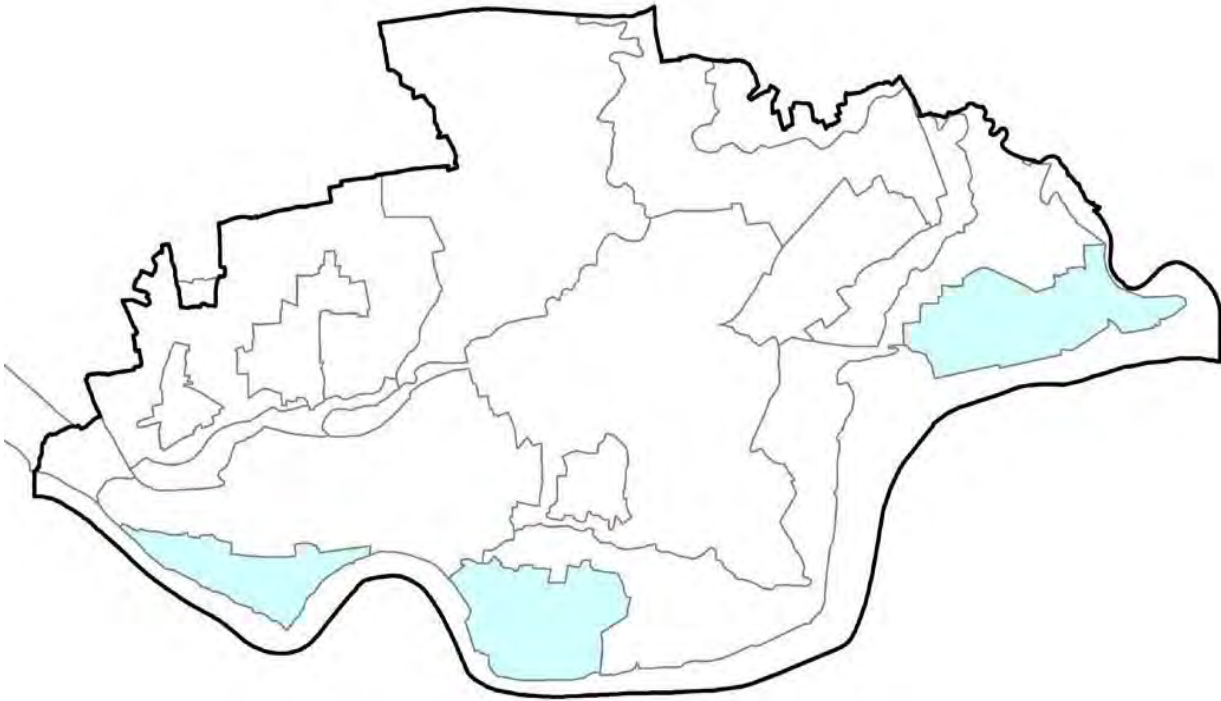
Vision

The vision for this character area is an undeveloped grazing marsh with a unified character, with naturalistic features including meandering creeks and reed beds that provide biodiversity value and a sense of history. An area that provides an accessible escape from built up parts of the Borough, with opportunities to learn about and enjoy the landscape

Guidance to conserve and enhance character

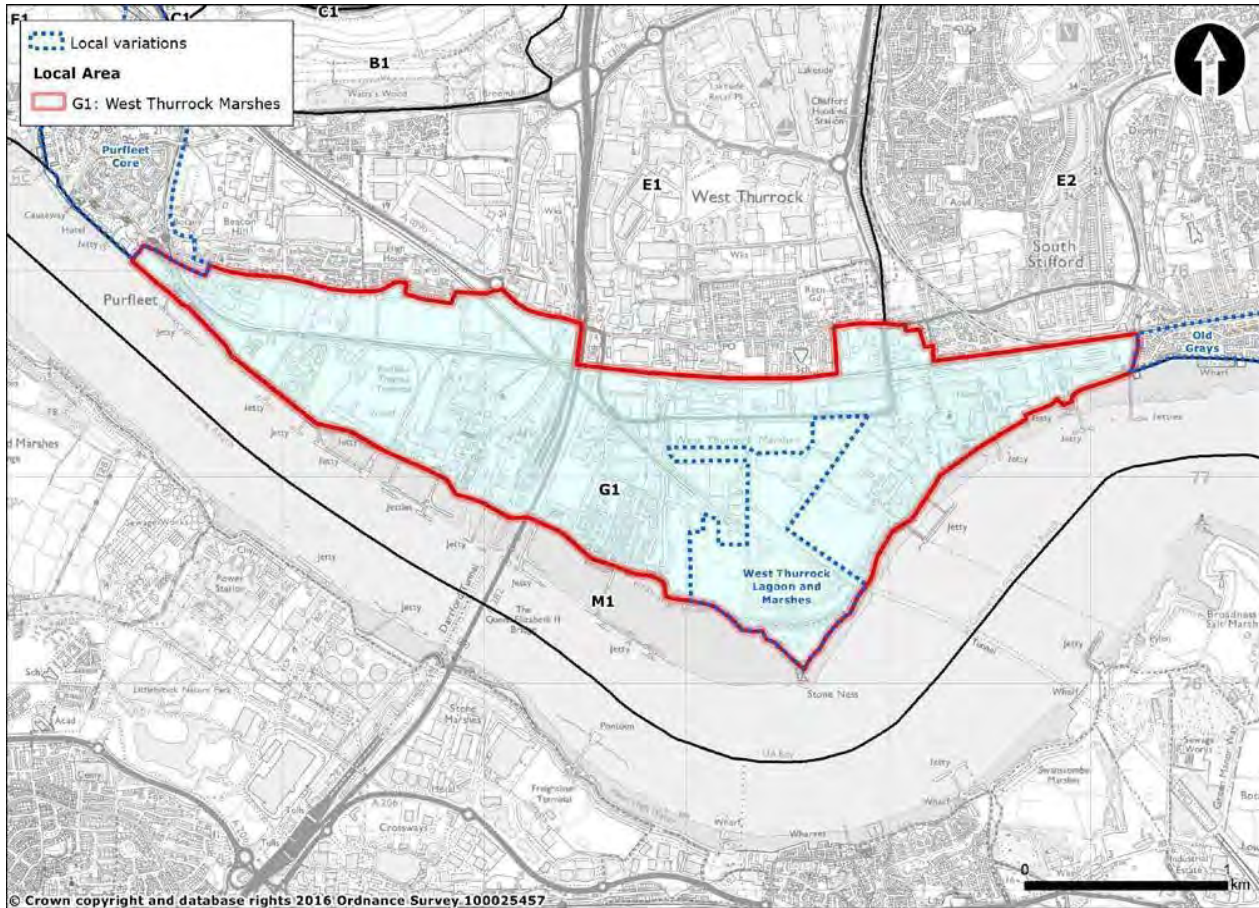
- Retain the remaining areas of unimproved coastal grassland and manage through grazing to ensure they continue to provide important habits and connection to the past.
- Consider reversion of areas in arable or industrial land use to pasture in the longer term to enhance the harmonious nature of the landscape.
- Retain the distinctive meandering creeks, fleets and ox-bow lakes and resist straightening of channels – manage the drainage dykes and creeks for their wetland habitats and biodiversity.
- Maintain the general absence of settlement and roads and consider removing detractors such as modern industrial buildings and diverting/ undergrounding pylons in the longer term – ensure the area remains an area of remoteness and dark skies.
- Maintain access to the marshes and consider extending access along the sea wall beside Holehaven Creek, including opportunities for views to enhance the enjoyment of the landscape and educational opportunities.
- Maintain the flat and open character of the marshes and the long distance views to rural backdrops – consider selective screening of industrial features using suitable marshland species or wet woodland.
- Maintain views to St Michael's Church on the adjacent Fobbing Ridge and ensure new built does not compete with the church for prominence.
- Maintain the World War II bombing decoy as a historic feature.

LCT G: Developed Marsh



- G1.1 This landscape type is defined by the areas of reclaimed and developed marsh that lie alongside the Thames Estuary above the High Water Mark but generally below 5m AOD. The flat and low lying topography is a strongly defining feature of all the marshland areas. This type of marsh is largely developed with industrial and port facilities (or, in the case of Tilbury, residential development) and this defines it from the Undeveloped Marshes (LCT F).
- G1.2 There are four geographical areas of 'Developed Marsh' in Thurrock:
- **LCA G1: West Thurrock Marshes**
 - **LCA G2: Tilbury Docks**
 - **LCA G3: Tilbury**
 - **LCA G4: London Gateway Port**

LCA G1: West Thurrock Marshes



Location and Boundaries

- G1.3 The **West Thurrock Marshes** lie between the open water of **LCA M1 Aveley Reach** to the south and the built up area of **LCA E1 West Thurrock, Lakeside & Purfleet** and **LCA E2 Grays, Chafford Hundred & Stifford** to the north. To the west the developed marsh meets Purfleet while to the east the marsh meeting Old Grays. The M25 crosses the Thames at this location joining Dartford to Thurrock. The developed and undeveloped marshes of Dartford are located on the opposite bank south of the Thames.

Photos



Queen Elizabeth II Bridge bisects the area and galvanised steel fencing dominates the streetscape.



Reed beds within drainage channels pass between industrial buildings and wide roads and connect with West Thurrock Lagoon and Marshes.



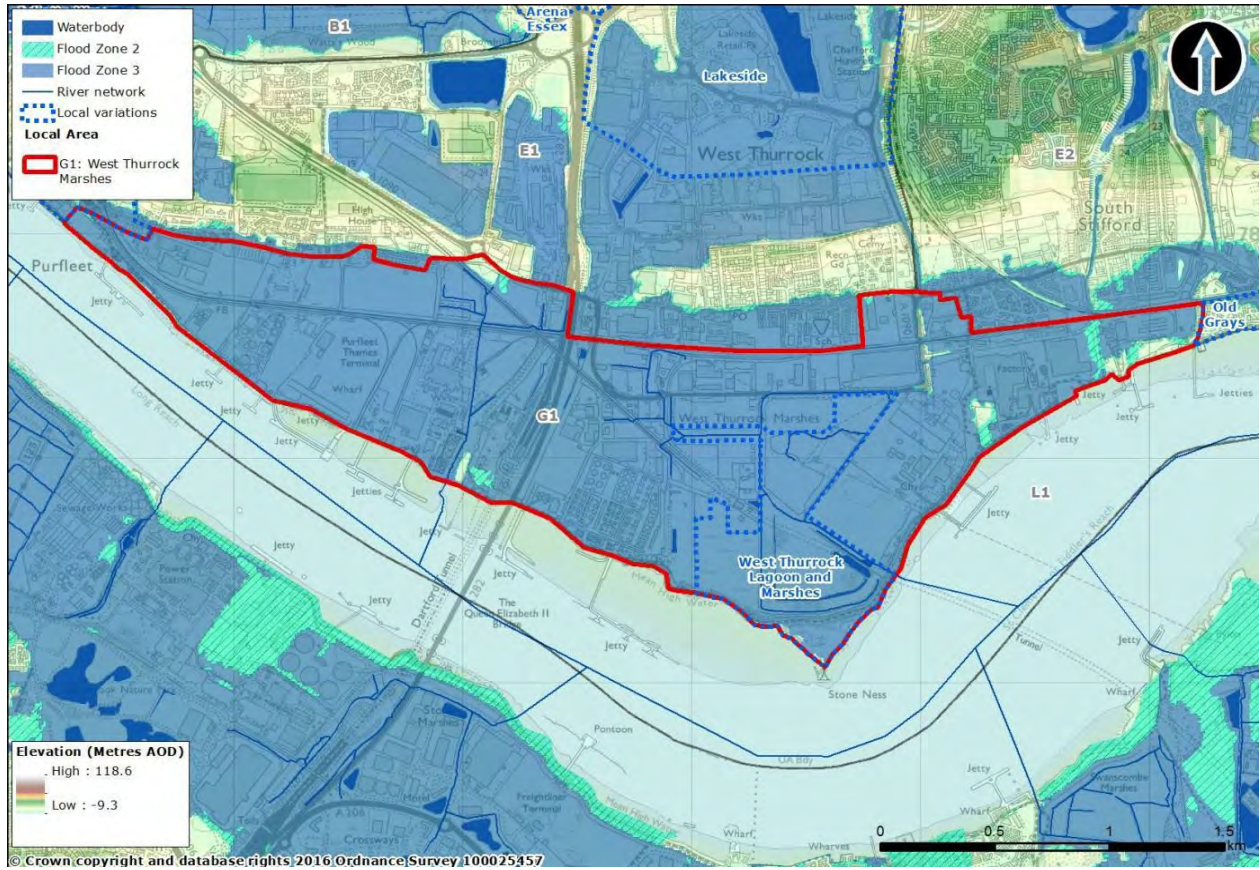
Industrial buildings create abrupt edges and regular movement of freight traffic creates a busy and active landscape.

Local Scale

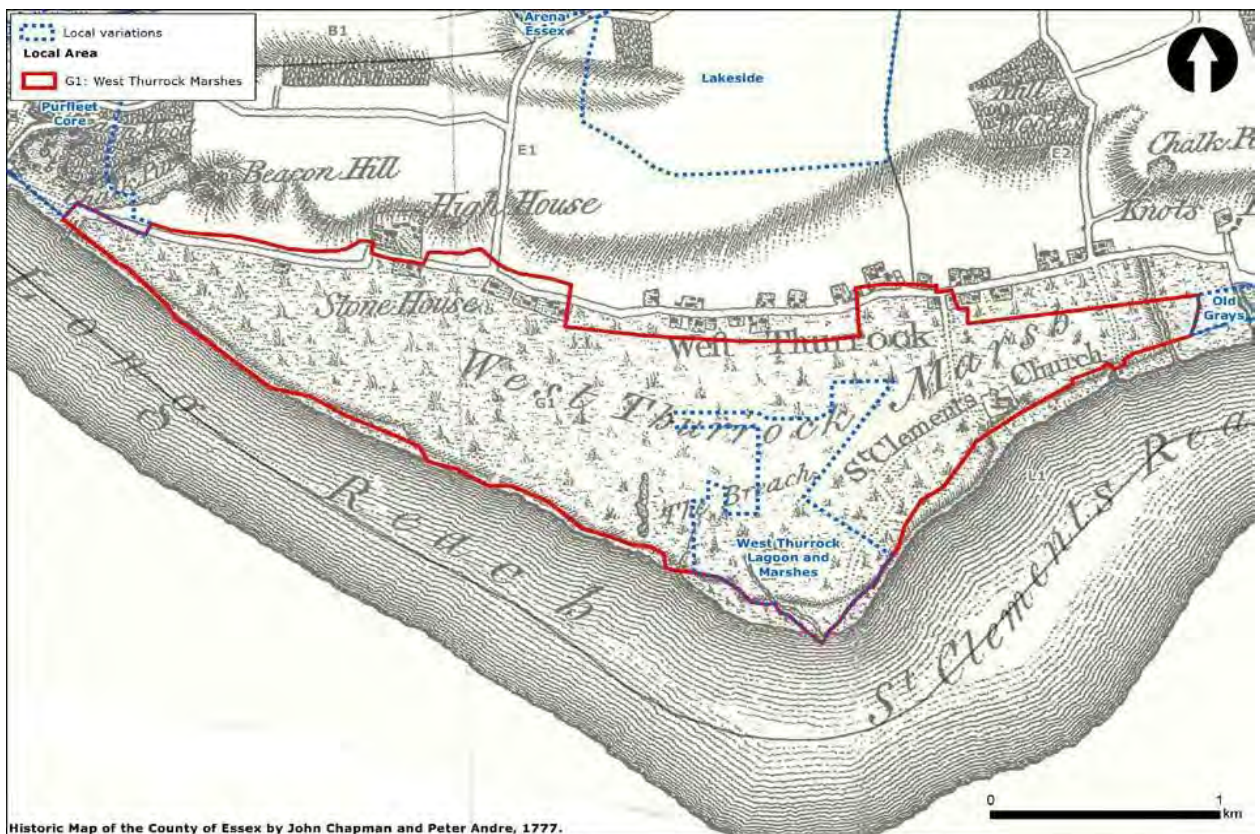
Landscape Character Profile

Landscape Character Area:
G1: West Thurrock Marshes

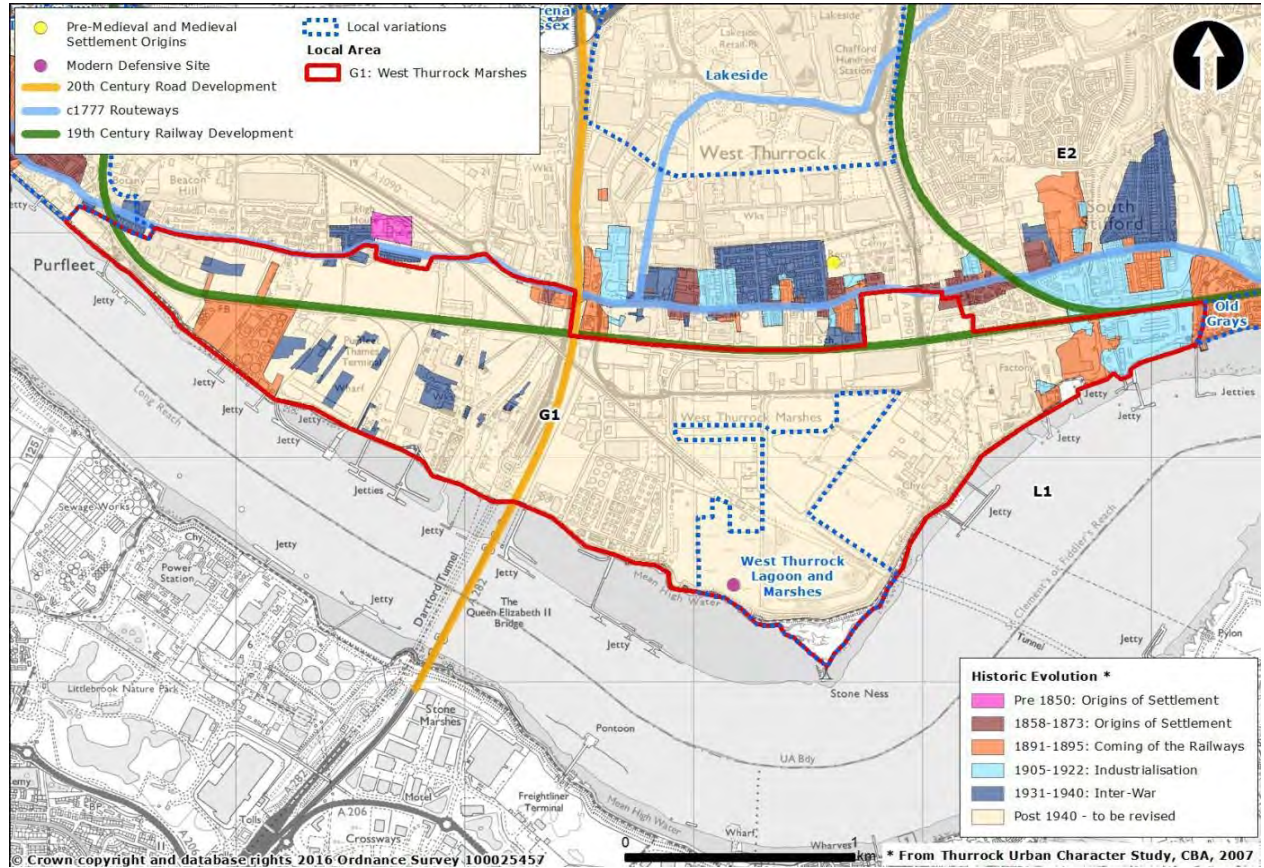
Topography and Drainage



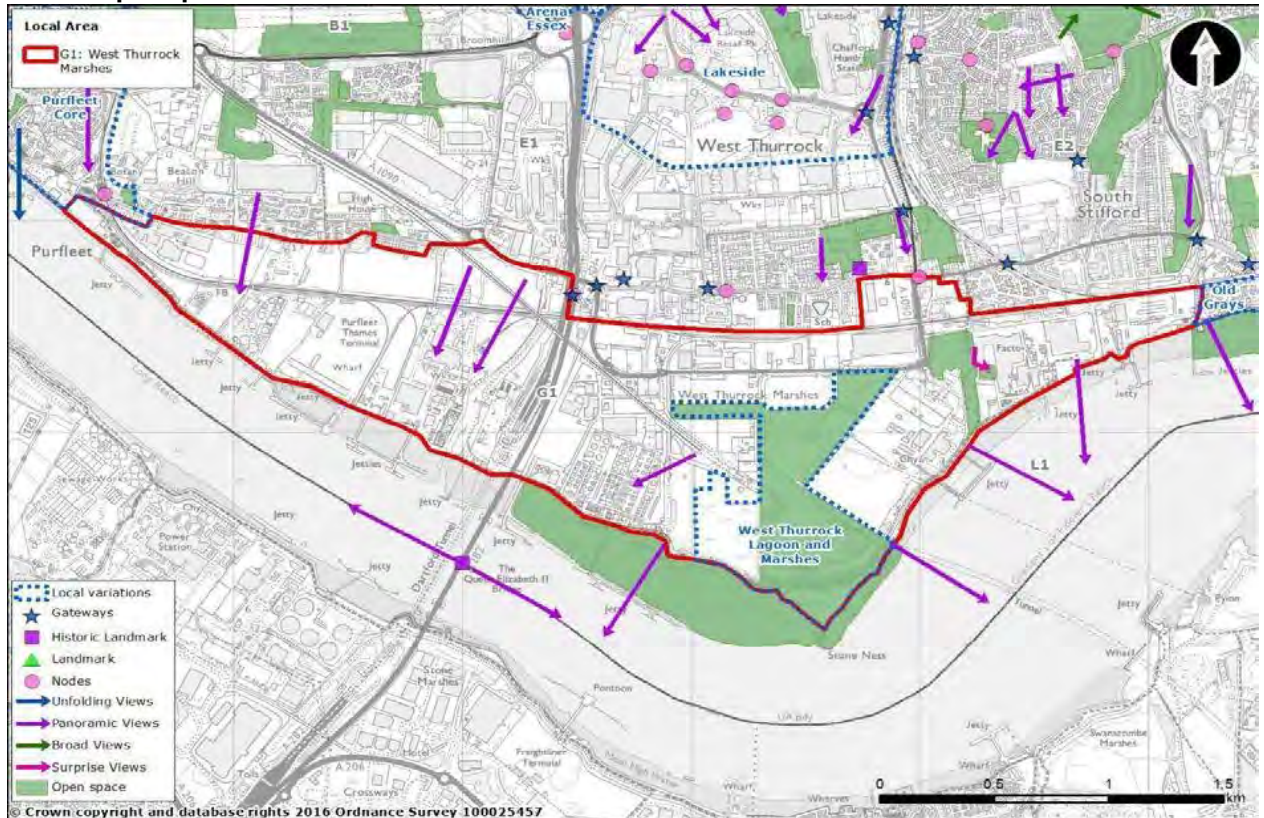
Historic



Historic Evolution



Townscape Experience



Character Description

Overview

- G1.4 This is an area of intensive industry including factories and freight infrastructure on reclaimed marshland, amongst which lies the Medieval Church of St Clement's. The West Thurrock Lagoon and Marshes (an area of woodland, reed beds, undrained marsh and mudflats), provides a respite from the industrial land use at the southern tip (Stone Ness). The M25 bisects the area from north to south and the Queen Elizabeth II Bridge (more commonly known as the Dartford Crossing) dominates the skyline across the river.

Key Characteristics

- Low-lying reclaimed and developed marshland underlain by river terrace deposits.
- Dominated by modern warehousing units, oil and mineral storage tanks and a former power station reached by wide service roads giving rise to a heavily industrialised landscape.
- Drained by small drains marked by localised areas of deciduous woodland.
- West Thurrock Lagoon and Marshes provide a more naturalistic area of deciduous woodland, reed beds and intertidal mudflats which provide high tide roosts for wintering waders and wildfowl.
- An artificial sea wall encloses the area and separating it from the tidal estuary (except at Stone Ness where there is a small area of undeveloped and undrained marsh outside the sea wall).
- St Clement's Church is an historic feature that sits amongst the modern industry.
- Extensive archaeological deposits have been identified including a Mesolithic and Neolithic flint working site and a medieval manor house.
- Fencing surrounding warehousing and industrial units, roads and the railway act as barriers to pedestrian connectivity and the area lacks structure (such as nodes and gateways).
- Industrial buildings often create harsh and abrupt edges and block views to the river.
- Regular movement of freight traffic in and around the marshes creates an active and busy area of industry, noisy in places.
- Although scenic quality tends to be poor as a result of the industrial nature of buildings, garish building materials and wide service roads, the undeveloped marsh at Stone Ness and the surprise views of the historic church St Clement's provide pockets of higher scenic quality.
- Views across and along the River Thames from the sea wall (the sea wall provides public access along the river).
- The Queen Elizabeth II Bridge is a prominent landmark on the skyline.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock consists entirely of undifferentiated chalk of the Seaford and Newhaven Chalk Formation. This is however overlain by alluvium river terrace deposits comprising clay, silt, peat and sand associated with the Thames.
Topography	Land is low-lying and remains generally flat, gently sloping up from the Thames between 0-5m AOD. An artificial sea wall encloses the area and separating it from the tidal estuary (except at Stone Ness where there is a small area of undeveloped and undrained marsh outside the sea wall).
Hydrology	A number of drainage channels flow from north to south connecting with the Thames just beyond the southern boundary. Virtually the whole area is Flood Zone 3.
Land Cover and Biodiversity	There is a general lack of vegetation across the area and that which exists generally comprises scrubby roadside planting. Small strips of deciduous woodland (a priority habitat) are situated between some buildings although most vegetation is concentrated within the West Thurrock Lagoon and Marshes. This more naturalistic area contains areas of deciduous woodland and reed beds, both priority habitats, and is designated as a SSSI because of its extensive intertidal mudflats and its high tide roost attracting wintering waders and wildfowl. The churchyard at St Clement's that has been managed as an ecological garden in recent years and includes deciduous woodland that is important for biodiversity.
Land Use	Modern large-scale heavy industrial building units including a combination of oil and mineral storage tanks, large storage units and commercial warehouses occupy much of the area. There is also an expanse of open marsh towards the south east of the area comprising West Thurrock Lagoon and Marshes.
Settlement Form and Style	Development is compact and arranged in rectilinear plots along a series of wide service roads. Edges of development are exposed and appear to finish abruptly due to the openness of the landscape and lack of vegetation. The industrial landscape of the West Thurrock Marshes also provides the setting of the Dartford Crossing and a gateway into Thurrock. The West Thurrock Lagoon and Marshes provides a naturalistic setting to the industry and is proposed as a Strategic Semi-Natural Greenspace in the Thurrock Green Infrastructure Plan.
Built Form and Style	Buildings within the area predominantly comprise tall warehousing units and industrial storage containers. Plots are generally large and rectilinear in shape, and are defined by galvanised steel fencing. Building materials are typical of an industrial landscape, with corrugated metal making up the facades and low pitched roofs of many of the warehouses.
Sense of place	The artificially drained and industrial nature of the landscape means it could be located in any part of the country. However, the visual connections to and from the Thames and the presence of the Queen Elizabeth bridge provide a sense of place.
Connectivity	There is very limited public access within the area, but there is a footpath along the length of the sea wall which provides a route east-west across the area. There is one north-south footpath link west of St Clement's Church. Galvanised steel fencing surrounding warehousing and industrial units, roads and the railway act as barriers to pedestrian connectivity.
Historic Landscape and Time Depth	The area was largely unsettled up until the start of the 1900s when the Thames Paper Mills were first introduced. Prior to this the area comprised open marshes and the isolated Church of St Clement's which dates back to the 13th century. Further development appeared in the 1930s around the current site of Purfleet Thames Terminal. The Dartford Tunnel was not built until 20 years later with the bridge being a more recent addition in the 1990s. Extensive archaeological deposits have been identified including a Mesolithic and Neolithic flint working site and a medieval manor house.
Cultural Associations	St Clement's Church featured in the film 'Four Weddings and a Funeral' and there are many memorials in the church grounds including one commemorating the 16

Landscape Component	Description
	cadets and their naval officer killed on board the Royal Navy's training ship in the Thames at Purfleet. The Dartford-Thurrock Crossing is the busiest estuarial crossing in the United Kingdom and the only crossing east of Greater London.
Urban Structure	As this is an industrial area it lacks typical urban structure such as nodes and gateways that would be typical of a settlement. The Queen Elizabeth II Bridge is a key landmark adjacent to this area.
Scenic Qualities	The lack of naturalistic landscape and replacement by large scale warehouse units and prominent industrial facilities has adversely affected scenic quality. The density of the buildings, the garish building materials and the wide service roads result in a poor scenic quality. However, there are small pockets of higher scenic quality such as at the undeveloped marsh at Stone Ness and the surprise views of the historic church St Clement's).
Perceptual Qualities	Heavy industrial buildings associated with the Purfleet Thames Terminal combine with the strong influence of other utilities infrastructure to create a very busy and active landscape. The regular noise, smell and movement of freight lorries within the area creates a strong sense of industry.
Visual Character and Views	Large-scale, often tall, buildings as well as the Queen Elizabeth II Bridge are dominant on the skyline. Panoramic views across the landscape are offered from the riverside wall and from the Queen Elizabeth II Bridge and there are surprise views of St Clement's Church from the public footpath. Views in from the north are limited by buildings along the outer edges as well as tree belts lining the roads and railway running along the northern perimeter.

Local Variations in Character

G1.5 Localised areas which vary in character have been identified as follows:

West Thurrock Lagoon and Marshes

G1.6 The lagoon and marshland at Stone Ness provides a distinctive and naturalistic area which is distinct from the adjacent industrialised areas. It contains bodies of standing water and areas of reed beds enclosed by woodland. The area provides important habitats as well as a green backdrop to the industry and an impression of what the pre-developed marsh would have looked like.

Character Evaluation

Landscape Quality/ Condition

G1.7 Landscape quality (condition) is influenced by the condition of components. The general lack of vegetation and the scrubby planting along roadsides portrays a landscape in poor condition. The industrial complexes, roads and railway also fragment the landscape leading to a lack of cohesion. Commercial warehouses, industrial facilities and the Dartford Crossing are visually prominent – it is not possible to integrate these large scale structures into such an open landscape. Overall there is a relatively poor scenic quality.

Past change

- G1.8 Development at the West Thurrock Marshes has only intensified since the beginning of the 20th century. What once began as a small church in the east has seen the construction of many commercial warehouses, freight facilities and a power station. As a result the previous open marshland character has been all but lost (a relatively small area still remains at West Thurrock Lagoon and Marshes).

Key sensitivities and valued attributes

- G1.9 The value of the West Thurrock Lagoon and Marshes is recognised through SSSI/ Local Wildlife Site designation and St Clement's Church is protected through its status as a Grade I Listed Building. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change: The areas of remaining unimproved coastal grassland that are relatively rare and provide important habitats as well as a great sense of history.
- The small drains and associated areas of deciduous woodland which soften the harsh industrial buildings and provide important habitat (deciduous woodland is a priority habitat).
 - West Thurrock Lagoon and Marshes which provides an impression of the past undeveloped marshland landscape and important habitats.
 - The public access that is provided along the sea wall, in an otherwise poorly connected area.
 - St Clement's Church which is rich in historic interest and cultural associations and provides a sense of history and surprise amongst the modern industry.
 - The churchyard at St Clement's that has been managed as an ecological garden in recent years and includes deciduous woodland that is important for biodiversity.
 - The views across and along the River Thames from the sea wall which provides a sense of place and recreational opportunities.
 - The Queen Elizabeth II Bridge that provides a prominent landmark on the skyline and provides a sense of place.

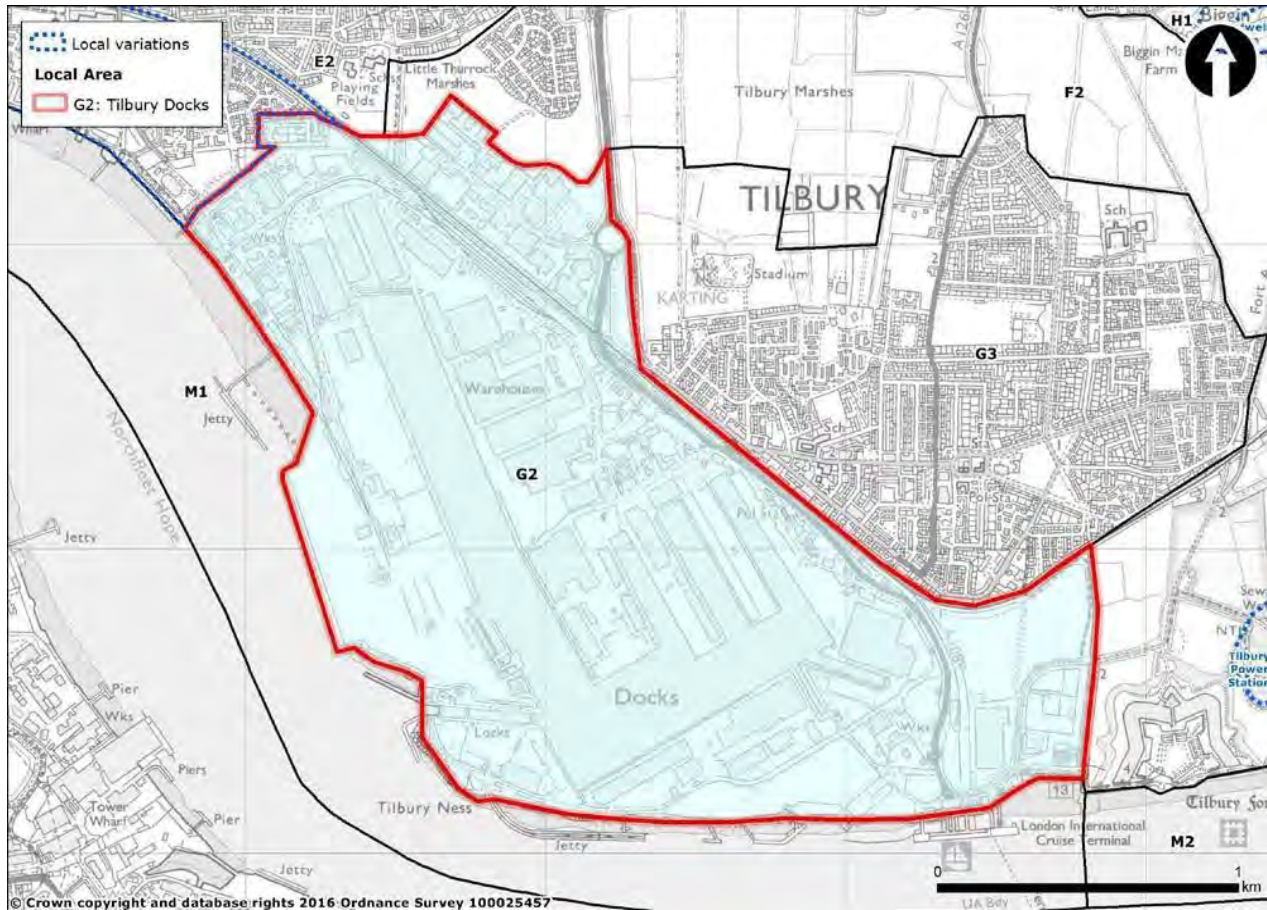
Vision

The vision for this character area is an active and thriving terminal port in well maintained condition with a well-connected network of publicly accessible greenspace that reflects the underlying marshland character and surprise remnants of the historic landscape that can be visited by the public (such as areas of undeveloped marsh and St Clement's Church).

Guidance to conserve and enhance character

- Conserve the naturalistic character of the drains and watercourses – aim to extend and link up areas of deciduous woodland to provide a green infrastructure between the industrial buildings. Provide a strong landscape framework within any large-scale new development.
- Maintain public access along the sea wall and consider extending public access (including cycle access), particularly north-south to link the river to the inland urban areas of West Thurrock and Grays.
- Maintain, and consider extending where possible, West Thurrock Lagoon and Marshes which provides an impression of the past undeveloped marshland landscape and important habitats. Consider if the sea wall can be moved back at any point to allow an expansion of the undrained marsh landscape.
- Maintain the surprise views of St Clement's Church and consider providing additional signing and interpretation to enhance its accessibility.
- Continue to manage open spaces (including the churchyard at St Clement's) for their biodiversity and contribution to green infrastructure. Encourage the same approach to spaces within industrial areas.
- Maintain views across and along the River Thames from the sea wall, and consider providing additional viewing/ stopping points with interpretation facilities. Consider opening up north-south viewing corridors to visually link West Thurrock to the Thames.
- Enhance the physical condition of the area through replacement of worn features and materials, use of high quality materials in any new building and planting of more street trees and native vegetation.
- Screen and soften the main road and railway corridors and industrial buildings with further planting.

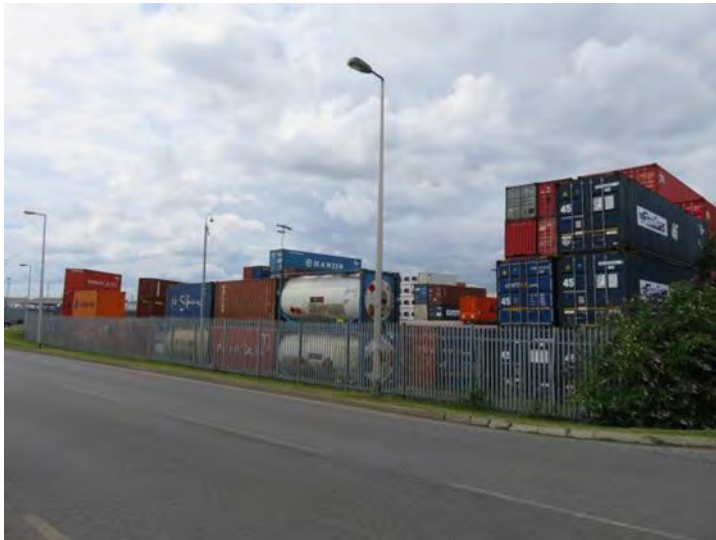
LCA G2: Tilbury Docks



Location and Boundaries

- G1.10 Tilbury Docks is located between the open water of LCA M1 Aveley Reach to the south and the built up areas of LCA E2 Grays, Chafford Hundred & Stifford and LCA G3 Tilbury to the north. The eastern boundary is formed by a ditch beyond which lies the undeveloped marshland landscape of the F2 Tilbury Marshes and Tilbury Fort. The developed riverside of North fleet is located on the opposite bank south of the Thames.

Photos



Large areas of hardstanding surrounded by galvanised steel are used for container storage and lorry parks.

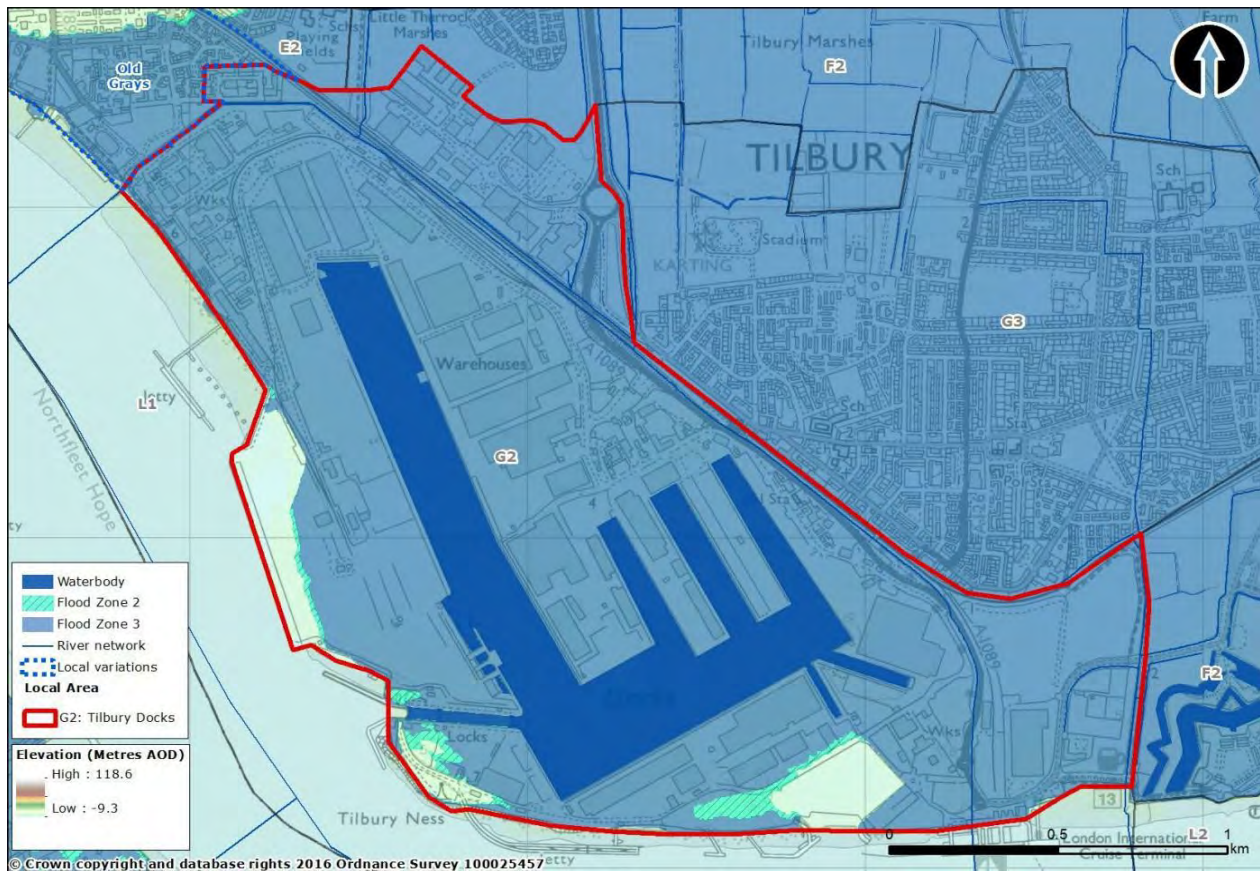


Wind turbines are prominent features in the landscape and contribute to the industrial skyline

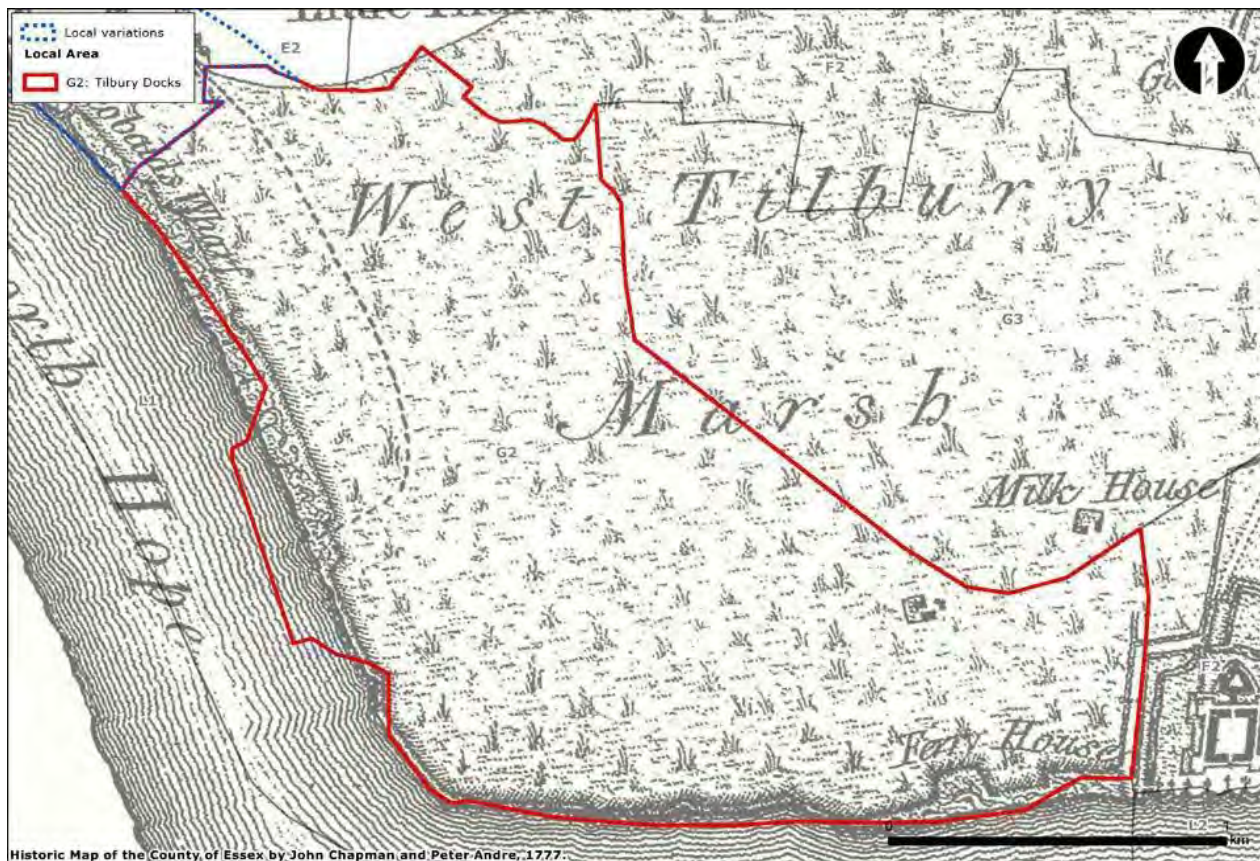


Concrete sleeper walls create an abrupt edge to the docks and restrict permeability.

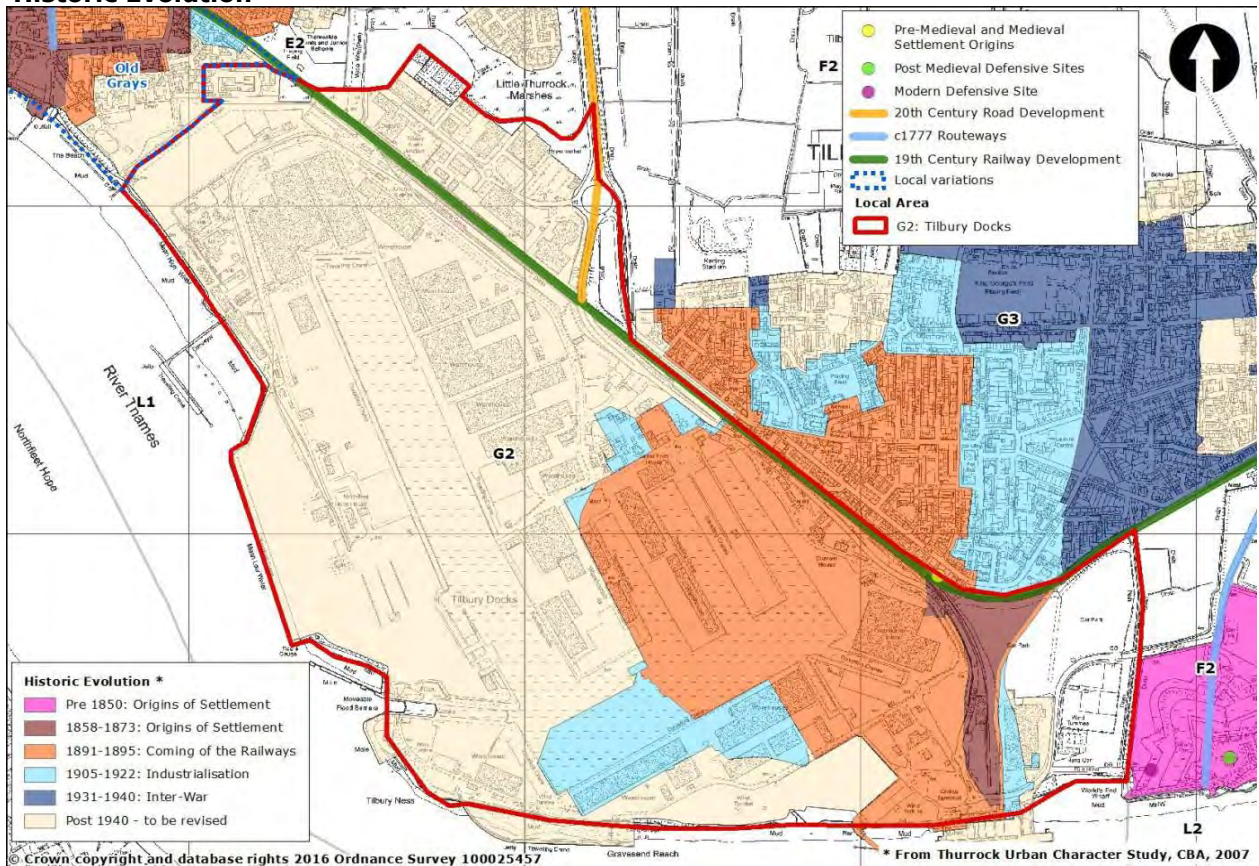
Topography and Drainage



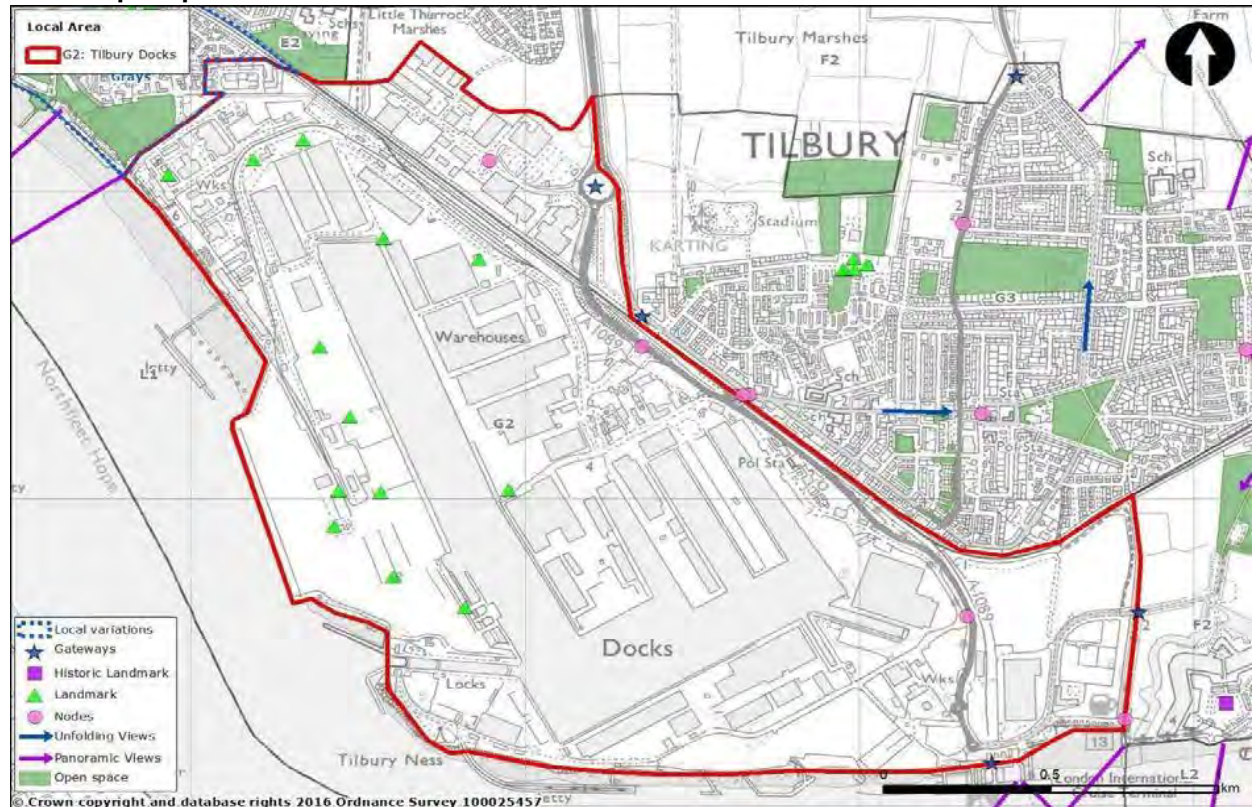
Historic



Historic Evolution



Townscape experience



Character Description

Overview

- G1.11 Tilbury Docks is a distinct area of flat drained marsh that has been developed as commercial warehousing and freight infrastructure including crane cranes along the dockside. The area has a large scale industrial character and vegetation is limited to trees and scrub lining roads, ditches and the railway.

Key Characteristics

- Low-lying reclaimed and developed marshland underlain by river terrace deposits and enclosed by a drain.
- Dominated by operational docks (built by the East and West India Docks Company in the 1880s but now largely remodelled) incorporating a deep artificially created area of water and surrounded by a number of large scale warehouses up to five stories and dockside cranes.
- The International Cruise Terminal is a distinctive feature with its 1930s built terminal building (which is listed) being used as the backdrop for numerous films and television dramas.
- The Southend and Thurrock railway passes through the area creating a barrier to movement, as does the industrial style fencing.
- An artificial sea wall encloses the area and separating it from the tidal estuary. This means views across the Thames are only obtainable from the top of the sea wall.
- Notable for its lack of green space and biodiversity.
- Buildings typically comprise industrial style warehouses of corrugated steel with low pitched roofs and little architectural detail.
- A pub (The Worlds End) adjacent to Tilbury Fort provides a more interesting building in the local vernacular style with a weather-boarded exterior.
- The massing of buildings and freight infrastructure together with the almost constant noise intrusion from vehicles in and around the docklands creates an active and busy industrial landscape.
- Although this is an industrial area it is harmonious in that the docks provide a consistent land use and structure for the area. However, poor quality boundaries detract from scenic quality.
- Tilbury Docks was the landing place of the SS Empire Windrush in 1948, which was the first ship to bring a large group of migrants from the Caribbean to the UK.
- Portside cranes, chimneys, pylons and wind turbines all contribute to an industrial skyline – the dockside cranes are landmarks.

Components that Contribute to Character

Landscape Component	Description
Geology	The geology is influenced by the proximity to the River Thames. The bedrock consists of undifferentiated chalk of the Seaford and Newhaven Chalk Formation and is overlain by alluvium river terrace deposits comprising clay, silt, peat and sand.
Topography	The land is low-lying and is generally flat with height ranges between 0-5m AOD. A sea wall encloses the area.
Hydrology	The large body of standing water associated with the docks make up a considerable part of the area and is connected to the River Thames by a series of locks.
Land Cover and Biodiversity	Mainly built up and with limited amount of green space and biodiversity.
Land Use	Commercial warehouses and associated infrastructure occupy the land in and around the docks. This includes container cranes on the dockside and large areas of hardstanding for use as car parking and shipping container storage.
Settlement Form and Style	The warehouse buildings are arranged in a geometric pattern around the rectilinear shape of the docks. A small area in the north follows a grid pattern perpendicular to the adjacent railway. The riverscape of the Thames forms much of the setting of the docks to the south with the settlement of Tilbury and Grays bordering the area to the north.
Built Form and Style	A combination of modern and historic dockside buildings and structures occupy much of the area. These consist of several warehouse and storage units made up of corrugated steel to the facades and low pitch roofs and have a large scale pattern, accentuated by open areas of hardstanding. The London International Cruise Building was built in the 1930s and is Grade II Listed. There is also a pub (The Worlds End) in a local vernacular style with clay tile roof and weather-boarded exterior.
Sense of place	The warehouses and cranes and the physical connection the docks have with the riverside creates a strong sense of place.
Connectivity	The area is virtually inaccessible to the public. There is one road through the area (A1089) leading to the London International Cruise Terminal and short sections of footpath on the edges of the area but there is no continuous footpath along the river. The railway and high boundary walls form barriers to movement – there are poor links between the settlement of Tilbury in the north and the waterfront in the south, although there is a footpath that runs along the eastern boundary linking Tilbury to the Worlds End Pub and Tilbury Fort.
Historic Landscape and Time Depth	Development on the open marshes began when Tilbury Station was built together with London, Tilbury and Southend Railway at the start of the 1870s. Tilbury Docks were constructed and opened towards the end of the 1880s where it traded in a number of goods with Africa and Asia. The docks have undergone considerable expansion and alterations over the last 100 years. In 1930, it was developed to increase the passenger liner service and in the 1960s it was subject to an improvement programme to allow large container ships to dock. The layout of the waterbodies was significantly changed in the late 20th century and only a few early dockside structures still remain in the present day. There was a tavern on (or near) the location of the World's End pub in the 17th century²².

²² http://www.tilburyandchadwellmemories.org.uk/page_id_48_path_0p2p.aspx

Landscape Component	Description
Cultural Associations	When the docks were first developed, Prime Minister of the time, Ramsey McDonald, opened the floating landing stage, which was designed by Sir Edwin Cooper. It was also the landing place of the SS Empire Windrush in 1948, which was the first ship to bring a large group of migrants from the Caribbean to the UK. The house of Daniel Defoe has been subject to much investigation and misconceptions. Recent research located the property at the current site of Tilbury Docks from a military surveyor's sketch from between 1713 and 1730. This illustrated the house and neighbouring barn facing towards the Thames along the waterfront at Tilbury Fort including the churches at Chadwell and West Tilbury. Other notable people have travelled through Tilbury Docks including Mark Twain from America and George Orwell, from France, both recorded their experiences of the occasion During World War II, Tilbury Docks was used to convert liners into armed merchant cruisers and after its multi-million pound improvements in 1960s, it established itself in the grain trade. The associated grain terminal was known as one of the fastest discharging installations worldwide when it opened in 1969. The significance of the dock to the local economy inspired the motto of the borough, "By Thames to all peoples of the world".
Urban Structure	As this is an industrial area it lacks urban structure typical of a settlement. There are three gateways to the area: at the Asda Roundabout on the A1089 in the north; the cattle grid on Fort Road to the east; and at the London International Cruise Terminal on the river. There are also a number of landmarks throughout the docks including communication masts and crane cranes along the dockside.
Scenic Qualities	Although this is an industrial area it is harmonious in that the docks provide a consistent land use and structure for the area. The distinctive cranes along the dockside contribute to this distinctiveness. However, poor quality boundaries detract from scenic quality.
Perceptual Qualities	The massing of buildings and freight infrastructure together with the almost constant noise intrusion from vehicles in and around the docklands creates an active and busy industrial landscape.
Visual Character and Views	The skyline of the area is defined by dock buildings, fencing and dockside cranes. There are few opportunities for public views due to the inaccessibility of the area. Where there is public access (e.g. to the Worlds End Pub next to Tilbury Fort) the sea wall prevents views of the Thames from ground level. However, from the top of the sea wall there are long views across the estuary.

Character Evaluation

Landscape Quality/ Condition

- G1.12 Landscape quality (condition) is influenced by the condition of components. The abundance of modern warehousing in a linear layout creates a consistent pattern and bold character. However, the scrubby appearance of vegetation, industrial style materials and boundaries in poor condition (particularly along the north adjacent to Tilbury) detract from landscape quality.

Past change

- G1.13 Part of this character area has long been an operational dock, although the development area has expanded and been heavily developed over the years. The road network shortly followed the opening of the docks but it was not until the 1970s when the A1089 was introduced. The

industrial area has expanded across the railway line to the north and additional uses introduced such as open storage, lorry parks and a number of wind turbines.

Key sensitivities and valued attributes

- G1.14 The following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change: The small drains and associated areas of deciduous woodland which soften the harsh industrial buildings and provide important habitat (deciduous woodland is a priority habitat).
- Vegetated drains which provide rare areas of biodiversity interest and form part of a green infrastructure network.
 - Areas of open water which are reminiscent of the original docks built by the East and West India Docks Company in the 1880s and provide a sense of history.
 - The 1930s built terminal building of the International Cruise Terminal which provides a sense of history and visual interest.
 - The views across the Thames from the top of the sea wall which provide a sense of place.
 - The Worlds End Pub which provides an interesting building in the local vernacular style with a weather-boarded exterior.
 - The cultural interest of the Docks as the landing place of the SS Empire Windrush in 1948.
 - The Portside cranes which create visual interest and give the area a sense of place.

Vision

The vision for this character area is a lively operational docks built from high quality materials and with attractive boundaries (particularly to the residential areas), and set within an intact and biodiverse green infrastructure network with features of visual interest and good visual and physical connections to the Thames.

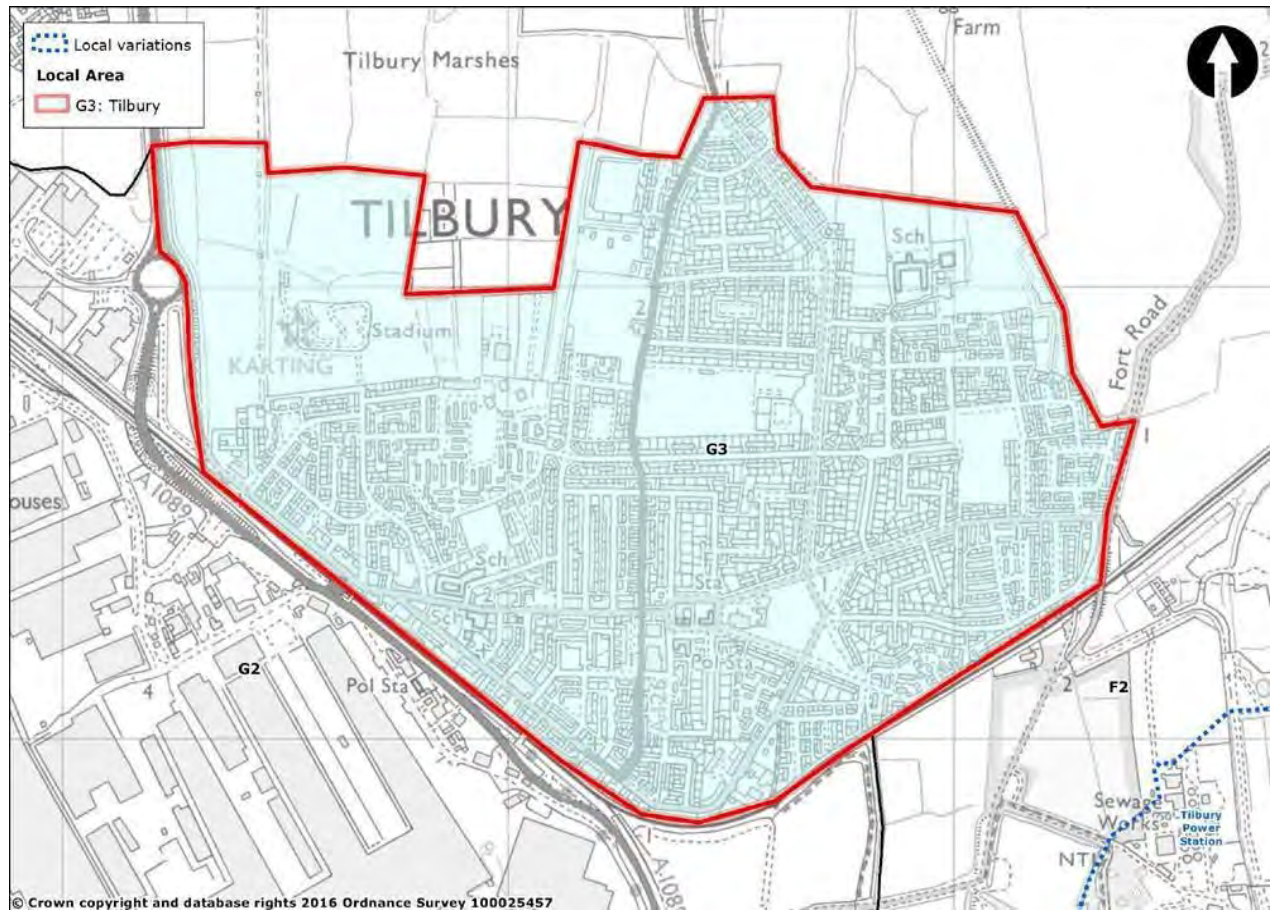
Guidance to conserve and enhance character

- Enhance the green infrastructure network through the creation of additional greenspaces supporting native vegetation, and manage these areas for biodiversity interest, their screening function to industrial uses, and public access.
- Soften existing harsh edges through additional planting or green buffers using marshland vegetation.
- Conserve the 1930s built terminal building of the International Cruise Terminal and enhance its setting by improving the landscape design using high quality materials and opening up views to the building.
- Conserve the Worlds End Pub which provides an interesting building in the local vernacular style with a weather-boarded exterior.
- Consider providing additional public access and interpretation facilities to enhance opportunities to visit and learn about the history of the area. Consider extending public access along the riverside.
- Remove barriers to movement where possible and enhance opportunities to see and appreciate the docks and the River Thames.
- Encourage use of high quality materials in any new buildings and boundary features – aim to improve boundaries in poor condition.
- Maintain, and consider extending where possible, West Thurrock Lagoon and Marshes

which provides an impression of the past undeveloped marshland landscape and important habitats. Consider if the sea wall can be moved back at any point to allow an expansion of the undrained marsh landscape.

- Screen and soften the main road and railway corridors and industrial buildings with further planting.

LCA G3: Tilbury



Location and Boundaries

- G1.15 This character area comprises the settlement of Tilbury, including an area of allotments and brownfield land on its north-western edge, set in the open and flat landscape of LCA F2 Tilbury Marshes which wraps around the northern, eastern and southern edges. The urban edges of Tilbury are highly visible in this open marshland setting. It is separated from LCA G2 Tilbury Docks by the railway line and A1089.

Photos



Areas of parkland with trees surrounded by roads punctuate the built form.

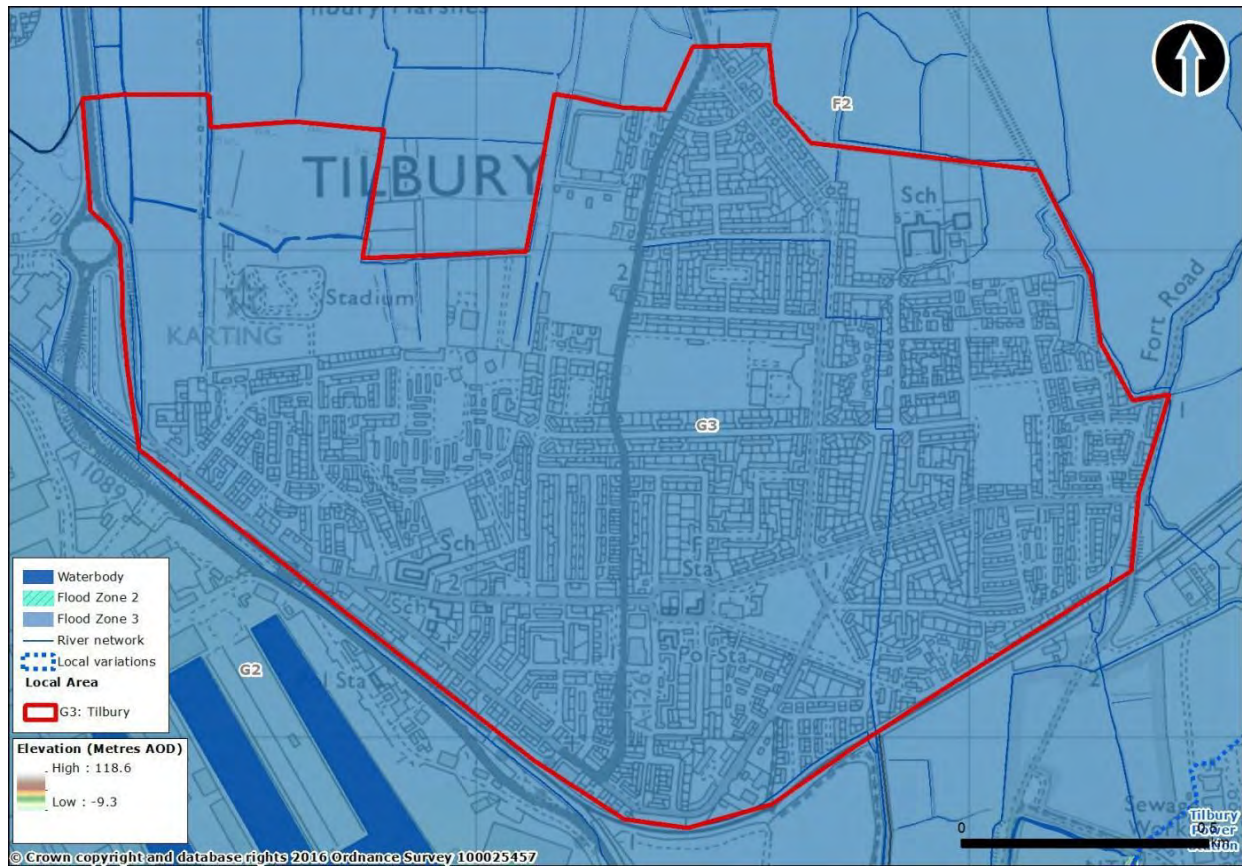


The war memorial at Civic Square in the town centre provides a local landmark where main routes through the town converge.

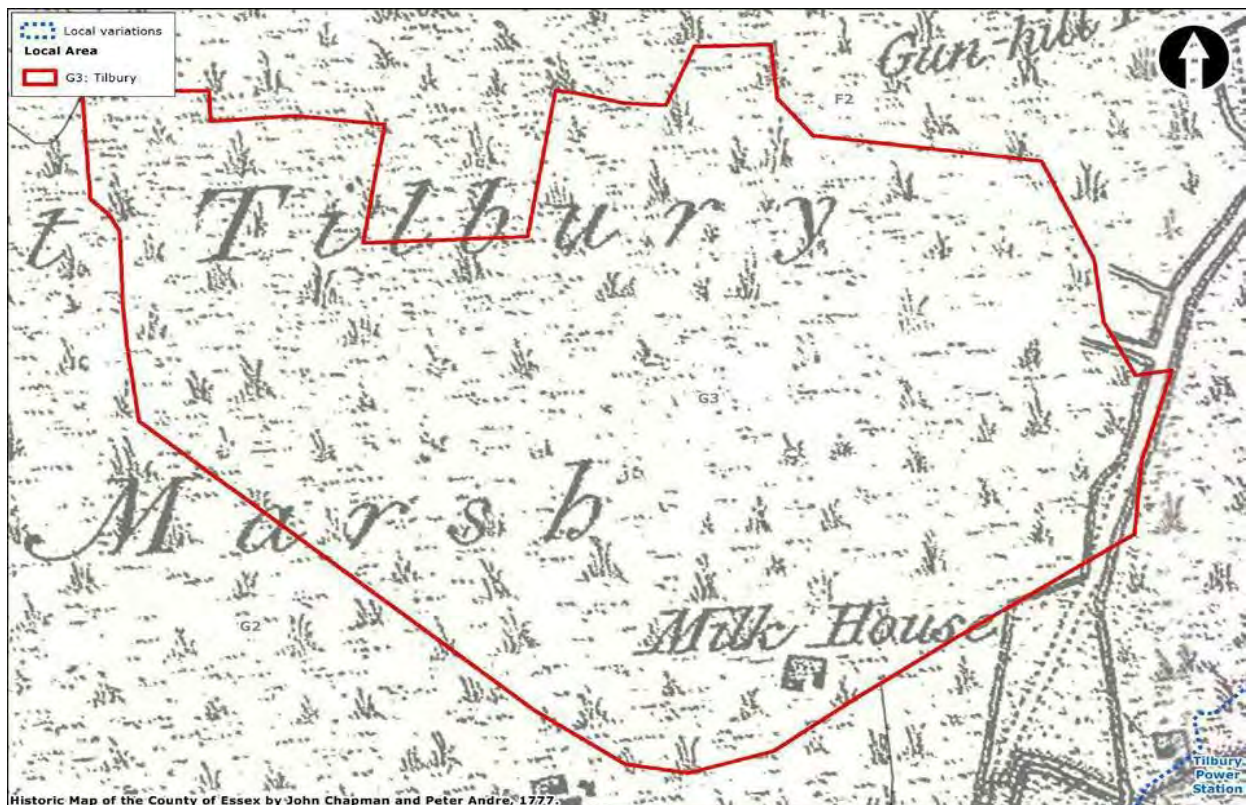


Housing is predominantly one or two storey, post war, semi-detached or detached houses and short terraces arranged along linear roads and cul-de- sacs.

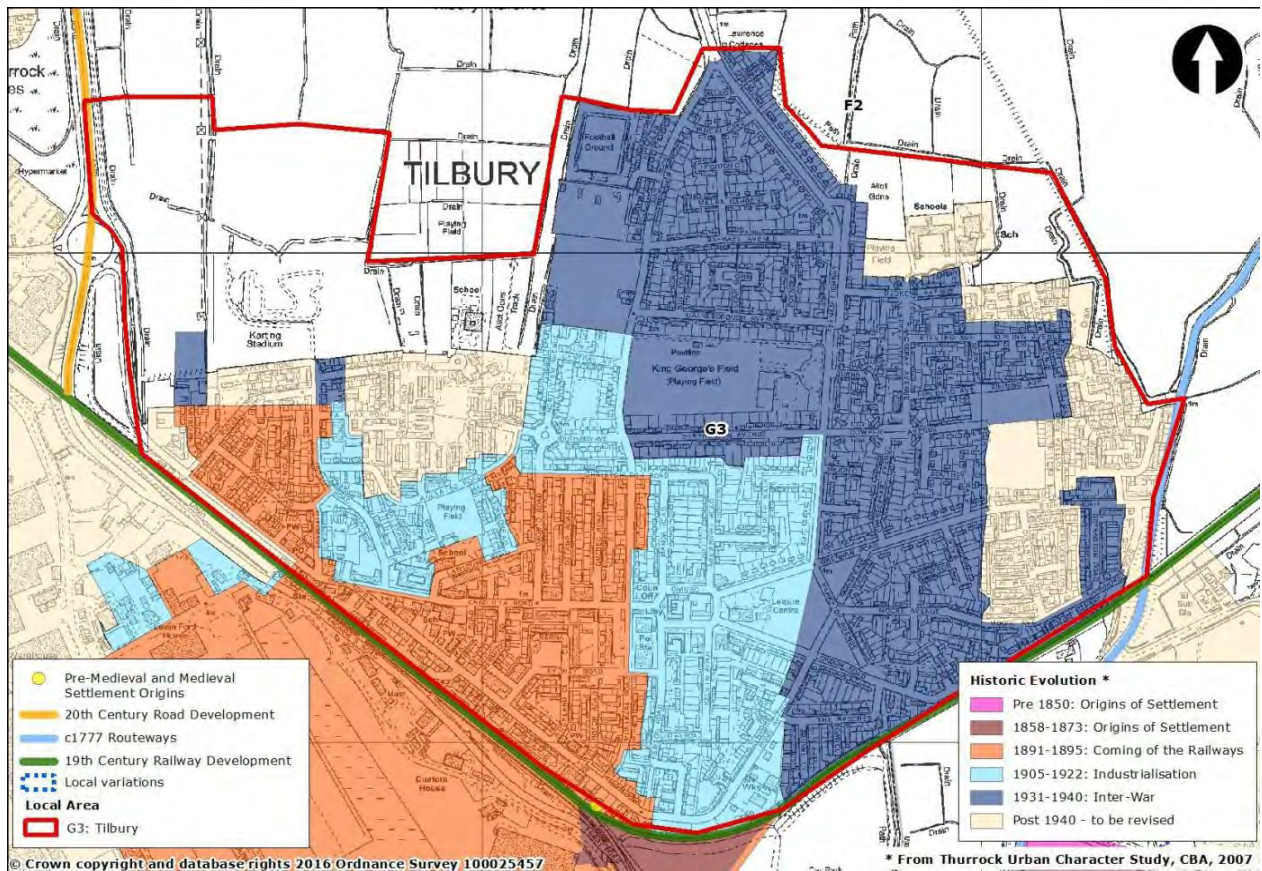
Topography and Drainage



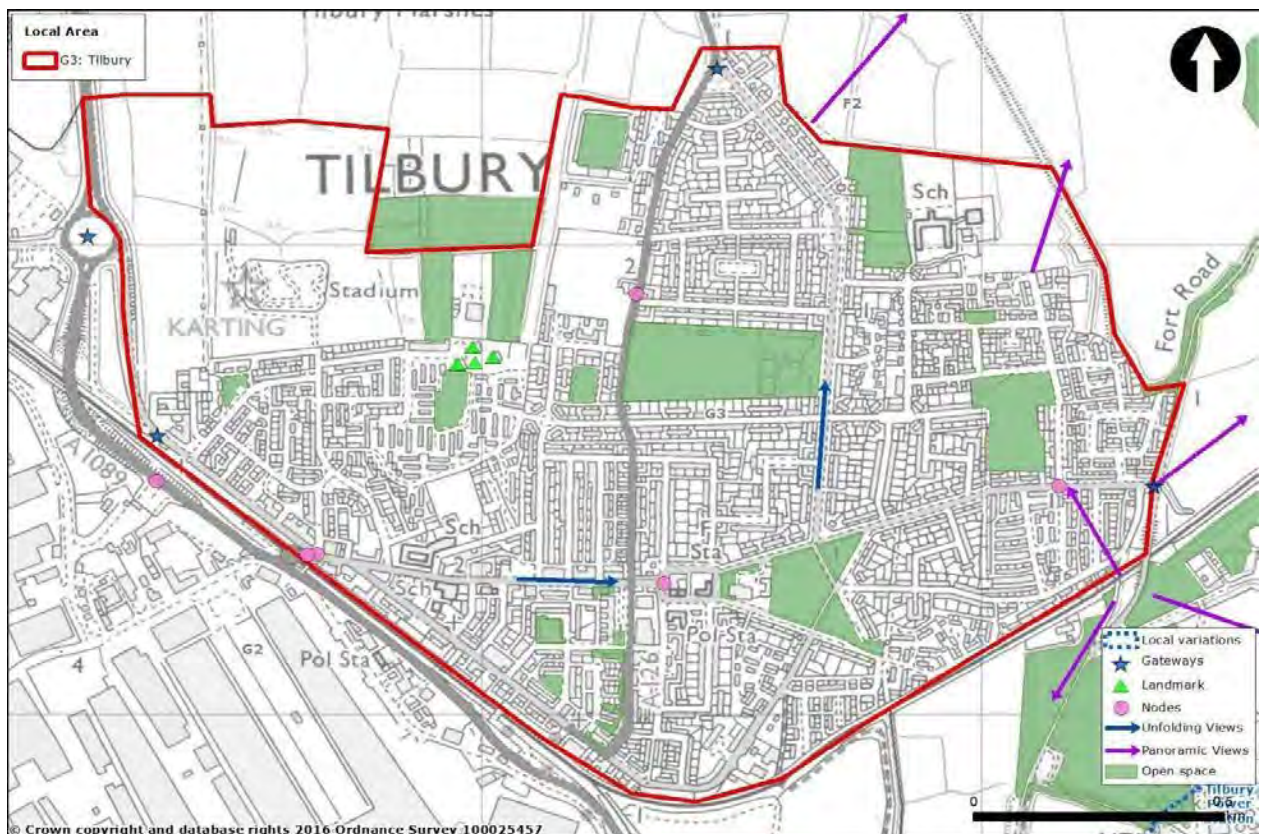
Historic



Historic Evolution



Townscape experience



Character Description

Overview

- G1.16 This area comprises the residential settlement of Tilbury, grown from a shanty town adjacent to Tilbury Docks in the 1880s and expanded rapidly in the inter- and post-war years over the open and flat marshland landscape. Today it is largely arranged in a grid pattern along two main roads orientated in a north-south and east-west alignment.

Key Characteristics

- A main post-war residential settlement located on flat low-lying marshland, developed from a shanty town adjacent to Tilbury Docks in the 1880s.
- Mostly inter- and post-war housing arranged around two perpendicular roads running north-south and east-west, meeting at the 'town centre' in the middle of the settlement.
- Housing is predominantly one or two-storey, post war semi-detached or detached houses and short terraces arranged around a number of linear roads, crescents and cul-de-sacs.
- Victorian buildings adjacent to the docks contribute to visual interest and scenic quality.
- Pockets of green space including parkland with trees around the edges punctuate the built form.
- The busy A126 and Feenan Highway contrast with quieter areas in residential areas off the main roads and away from the docks.
- Three residential tower blocks around Leicester Road in the north of Tilbury are visually prominent features.
- The open marshland landscape forms a setting on most sides, except the south-west where the docks provide a strong industrial setting.
- Long distance views across Tilbury Marsh towards the Chadwell Ridge to the north and across the Thames to the North Downs to the south.
- Associated with the Tilbury Band, formed in Tilbury in 1919, and one of the UK's best brass bands.

Components that Contribute to Character

Landscape Component	Description
Geology	The River Thames has a large influence over the geology of Tilbury. A broad swathe of alluvium river terrace deposits comprising clay, silt, peat and sand overlay the undifferentiated chalk of the Seafood and Newhaven Chalk Formation.
Topography	Land is situated within Tilbury Marshes and so is generally low-lying, level and located below 5m AOD.
Hydrology	A few field drains flow into the area from Tilbury Marshes in the north whilst a culvert runs under the settlement of Tilbury. These watercourses have a north- south alignment and connect into the River Thames further south. The entire area is classified as Flood Zone 3.
Land Cover and Biodiversity	A number of parklands are situated throughout Tilbury and typically comprise amenity grassland interspersed with trees. Vegetation is otherwise limited to residential gardens and so Tilbury has no areas of notable biodiversity interest or designated areas.
Land Use	Residential properties make up a large majority of this parcel and are interspersed with open green spaces including a few schools around the outer edges of the settlement. A small number of commercial units are also situated amongst housing development. A new distribution park in the north west of the Town provides an industrial land use.
Settlement Form and Style	Tilbury is a residential settlement that has spread out, unconstrained, into the surrounding marshland landscape. It originated as a shanty town adjacent to Tilbury Docks in the 1880s and therefore this area close to the railway contains some Victorian buildings. However, it expanded rapidly in the inter- and post-war years and these areas are arranged around two perpendicular roads running north- south and east-west, meeting at the 'town centre' in the middle of the settlement. Pockets of green space including parkland with trees around the edges punctuate the built form. The open marshland landscape forms a setting on most sides, except the south-west where the docks provide a strong industrial setting.
Built Form and Style	Development within Tilbury is predominantly one or two-storey, post war semi-detached or detached houses and short terraces arranged around a number of rectilinear roads, crescents and cul-de-sacs. The town centre focussed around Civic Square at the middle of Tilbury also comprises post war buildings and includes residential flats above retail, leisure and civic buildings. Buildings are aligned along wide roads with generous footpaths and planting. There are three residential tower blocks surrounded by areas of hardstanding situated around Leicester Road in the north of Tilbury, which are visually prominent. An area of mostly two-storey, terraced housing with some larger three-storey flats and churches is located to the south and is more mixed in age including Victorian buildings close to the railway. Large scale commercial units associated with the London Distribution Park.
Sense of place	The abundance of post war housing that has overlain the marsh landscape and the use of mass produced and non-place specific materials means the area does not have a strong sense of place.
Connectivity	A network of main roads traverses the area and subdivides housing development. Footpaths are limited to pavements with minimal pedestrian connections with the wider countryside beyond. The mainline railway running along the southern boundary provides an additional barrier to movement.
Historic Landscape and Time Depth	Tilbury originally developed as a shanty town in conjunction with the new docks in the late 19th century with the earliest parts situated next to the docks in the south west. This is recognisable in the remaining Victorian houses in this area. It was not until 1912 that Tilbury was given town status before it then expanded from west to east in the inter-war and post-war years.
Cultural Associations	The Tilbury Band was formed in Tilbury in 1919 and has since become one the UK's best brass bands winning multiple contests and placing high within high- profile competitions. Tilbury and its surroundings have featured in many television episodes and films, and

Landscape Component	Description
	Tilbury Trojan Skins, a notorious gang of skinheads from Tilbury, appeared in the film Pink Floyd – The Wall. The war memorial situated within Civic Square in the centre of Tilbury commemorates the lives lost in the First World War.
Urban Structure	As this is an industrial area it lacks urban structure typical of a settlement. There are three gateways to the area: at the Asda Roundabout on the A1089 in the north; the cattle grid on Port Road to the east; and at the London International Cruise Terminal on the river. There are also a number of landmarks throughout the docks including communication masts and crane cranes along the dockside.
Scenic Qualities	The gateways to Tilbury are from the A126 in the north, Fort Road in the east and Dock Road in the west. These are typically formed by highway junction with little visual amenity and so provide a low key sense of arrival to the settlement. Civic Square in the centre of the town provides a distinctive nodal point where these roads converge. There is another node located at the railway station.
Perceptual Qualities	The presence of open spaces and historic buildings adjacent to the docks contribute to visual interest and scenic quality while the mass produced materials and poor condition in places detract from scenic quality.
Visual Character and Views	The A126 and Feenan Highway provide key movement corridors through the residential area and bring noise and movement with them. There are quieter areas off the main roads and away from the docks in the east.

Character Evaluation

Landscape Quality/ Condition

- G1.17 Landscape quality (condition) is influenced by the condition of components. This varies across the area. The settlement appears incongruous in the landscape from the abrupt and open settlement edges along the north whilst the three tall tower blocks appear discordant with the generally low rise settlement and flat marshland landscape. The boundary between the settlement edge and surrounding countryside is often harsh and the homogenous styles and utilitarian materials do not provide a strong sense of place. Condition of streets or facades is variable and gateways and nodes are generally weak and in poor condition. Some cohesion is provided through the relatively consistent street pattern and layout.

Past change

- G1.18 This character area underwent change during the late 1800s and early 1900s in conjunction with Tilbury Docks adjacent in the south. What began as open marshes was soon dissected by north- south roads roughly following field boundaries and a railway that bore no relationship to the field pattern. Housing development during and after the war further developed the area largely following the original road layout and fully urbanised the area.

Key sensitivities and valued attributes

- G1.19 The following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- Historic buildings located close to the railway and Tilbury Docks which provide visual interest and a sense of history.
 - Open green space which provides a sense of place, biodiversity interest and recreational opportunities.
 - The open marshland setting which provides a sense of place.
 - The views across Chadwell Marsh to the Chadwell Ridge to the north and views across the

Thames to the North Downs to the south.

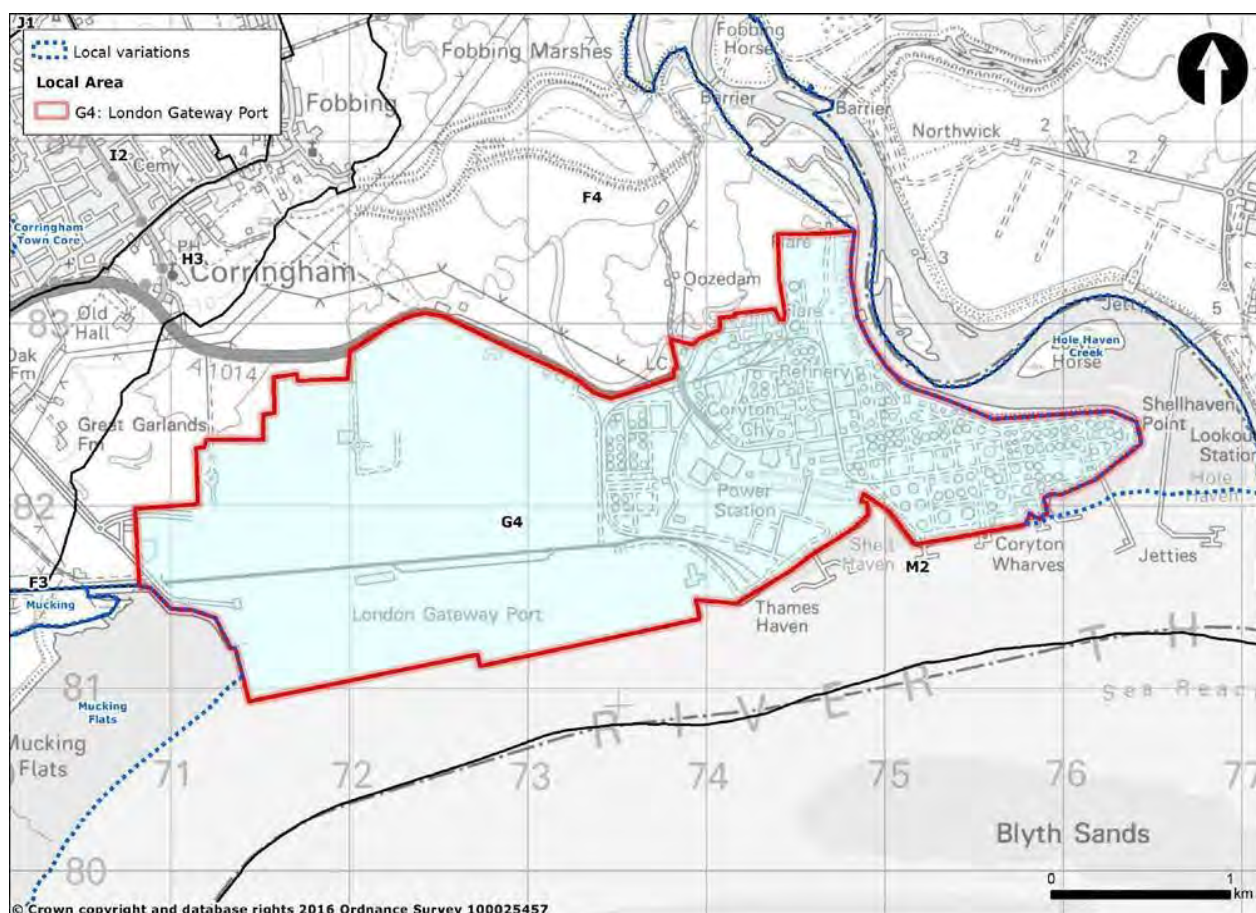
Vision

The vision for this character area is an attractive and vibrant residential area with a clear urban structure, high quality buildings, attractive local centres, an engaging green streetscape and green infrastructure network that reflects the underlying landscape and connects to the wider marshes.

Guidance to conserve and enhance character

- Maintain and enhance the character of the older streets and Victorian buildings and enhance links to the Dock.
- Extend and link up green spaces to provide an intact green infrastructure network that reflects the underlying landscape, connects with the wider marshes.
- Manage open spaces for biodiversity interest and recreational opportunities and aim to create a sense of place.
- Aim to create additional opportunities to appreciate the views north to the Chadwell Ridge and south across the Thames.
- Enhance streetscape character through planting of street trees and use of a coordinated material palette.
- Enhance pedestrian and cycle connections around the residential area with the town centre and open landscape beyond.
- Enhance connections with Tilbury Docks and the waterfront to the south.
- Enhance edge treatments to the settlement boundary and between residential and industrial

LCA G4: London Gateway Port



Location and Boundaries

- G1.20 The London Gateway Port is located at the eastern end of Thurrock on the banks of the River Thames south of Fobbing and Corringham. The extent of the area is defined by the developed area and the A1014 forms part of the northern boundary. The undeveloped marshland landscape of LCA F4 Fobbing Marshes & Haven Creek wraps around the northern, eastern and western edges. The southern extent adjoins the River Thames at LCA L2 Gravesend Reach to Mucking Flats. Open undeveloped marshes in Medway are located on the opposite side of the river.

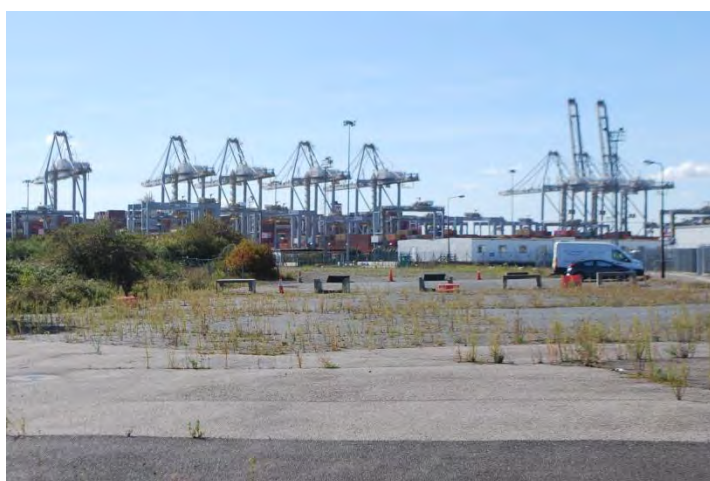
Photos



A strong sense of remoteness provided by the undeveloped marshland that surrounds the industrial development.

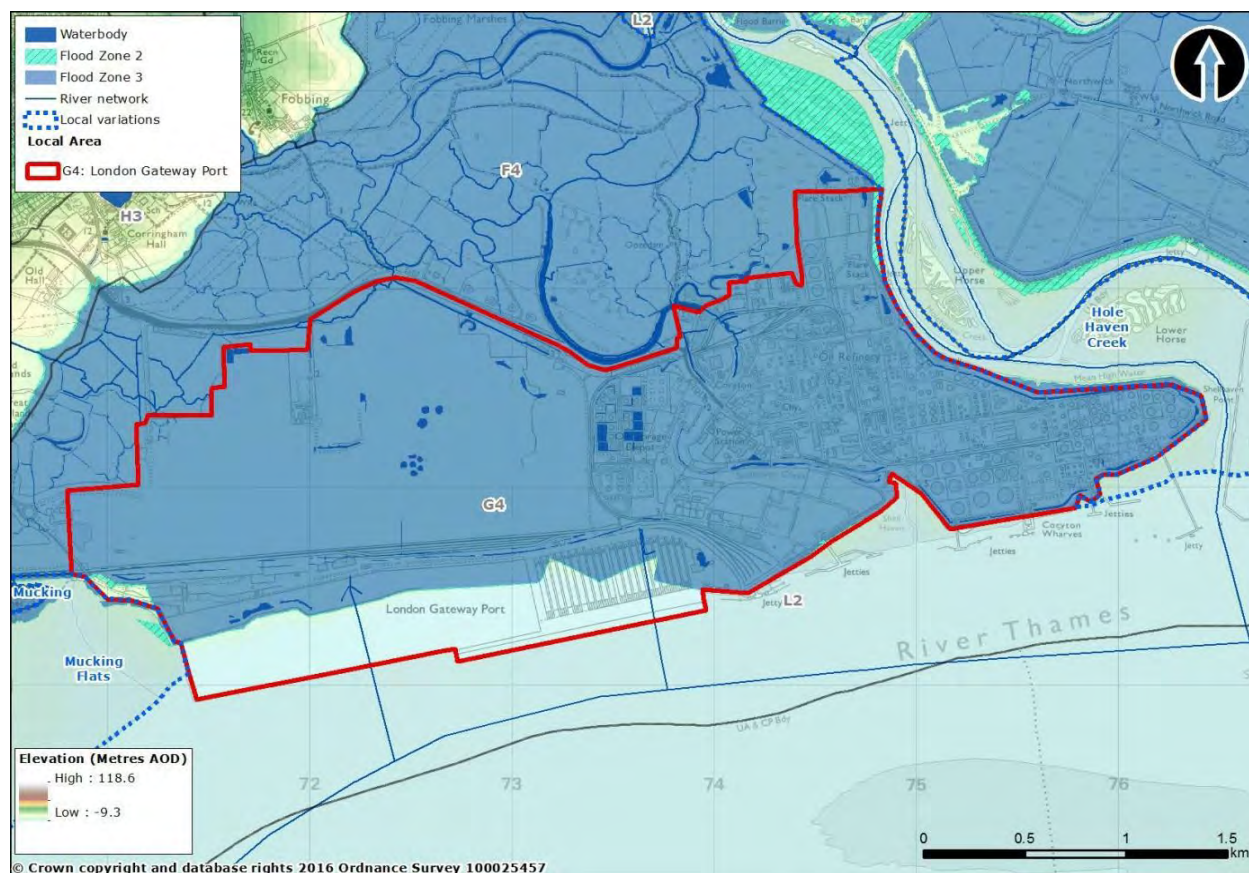


Large scale warehousing formed of corrugated steel dominates views towards the Thames from the marshes but have poor physical connections to the wider landscape.

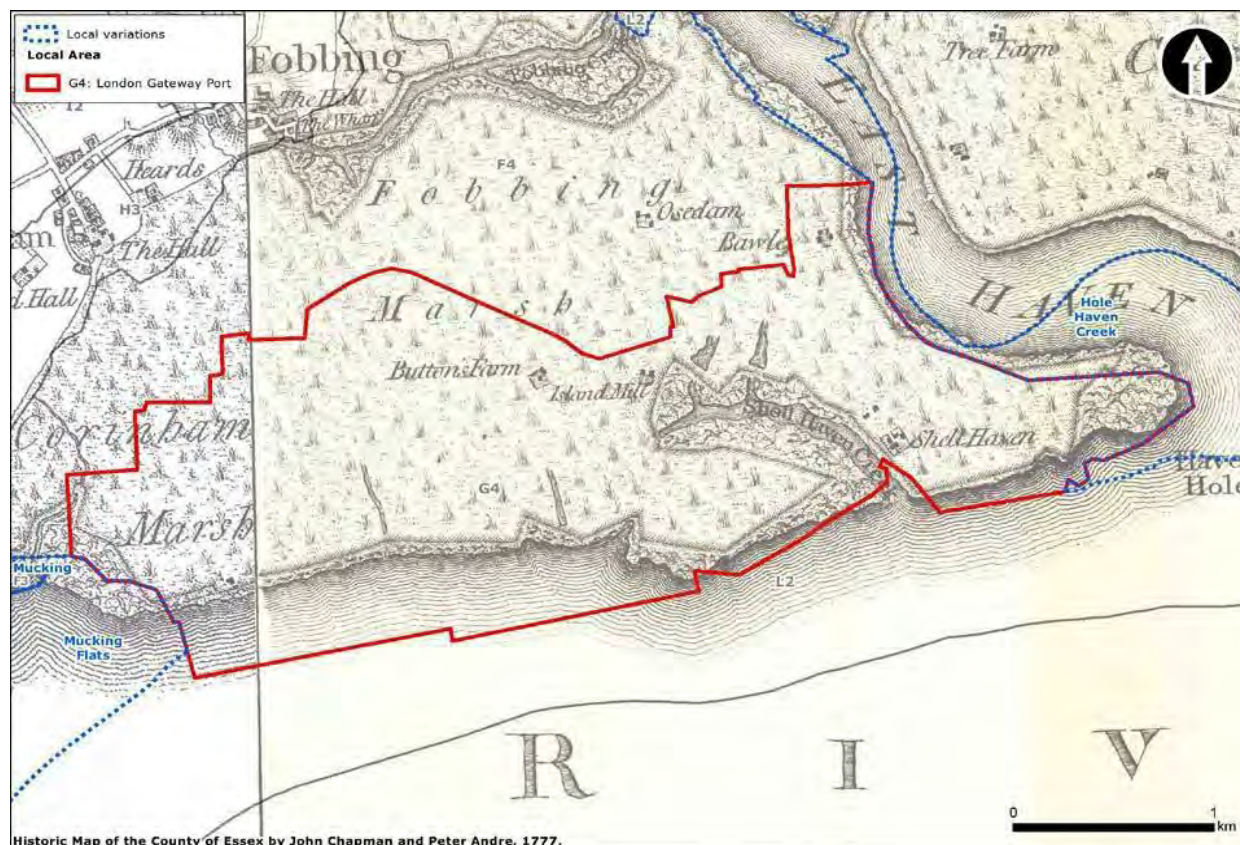


Cranes at London Gateway Port in 2018

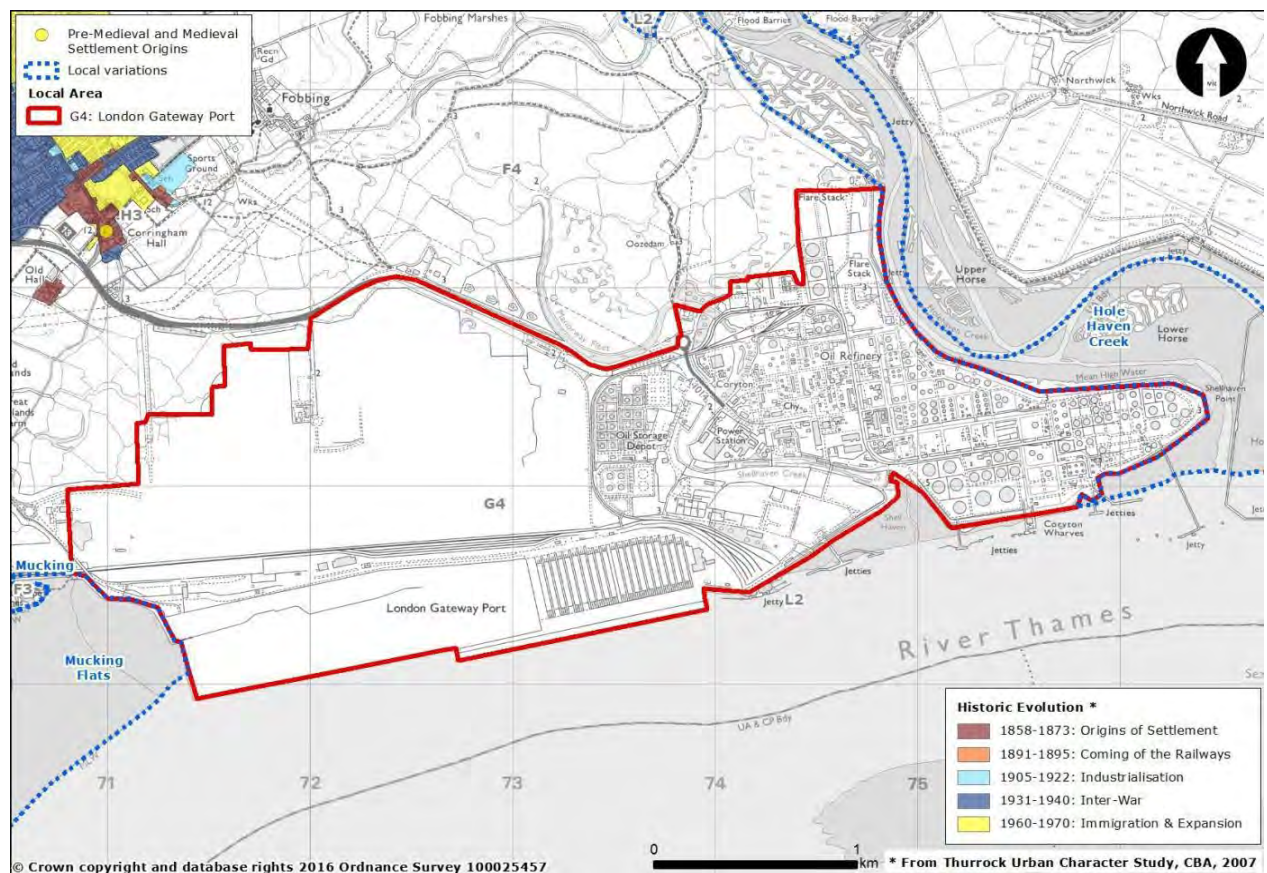
Topography and Drainage



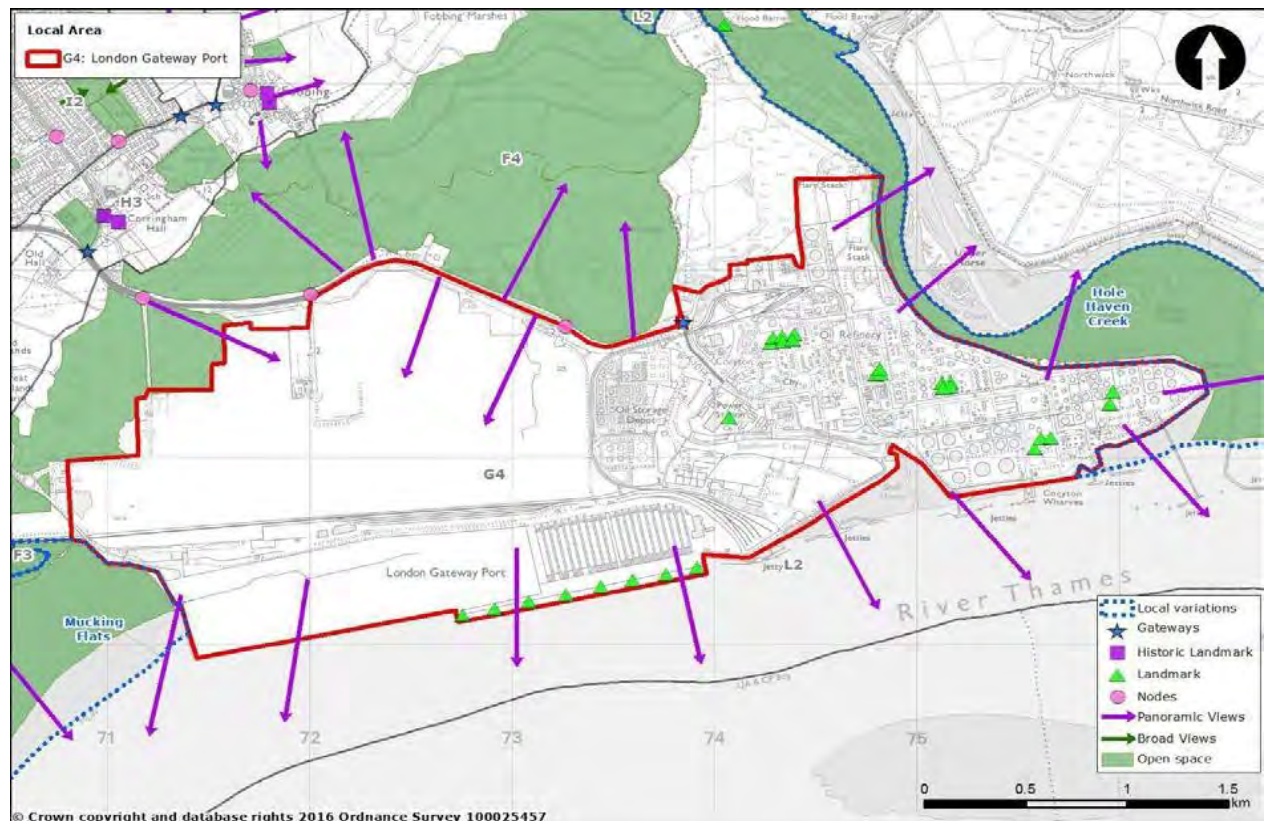
Historic



Historic Evolution



Townscape experience



Character Description

Overview

G1.21 This area comprises the London Gateway port development (currently under construction) and the disused Shell haven Oil Refinery on the northern bank of the River Thames which is currently being cleared to facilitate other new large scale industrial/commercial premises. The area is flat, being drained from former marshland, but contains some vestiges of the former marshland landscape along Shell haven Creek which meanders through the area from north to south.

Key Characteristics

- An overwhelmingly industrial landscape of reclaimed land, surrounded by open and undeveloped marshland which gives the area a sense of remoteness.
- Dominated by industrial buildings and structures associated with the refining, storage and distribution of oil as well as a large commercial warehouses and port facilities.
- Renowned for being a major livestock import centre and petroleum production and storage in the past.
- An area in flux with the development of the London Gateway expansion development comprising a new deep-water port and a large logistics park, and redevelopment of the former refinery site.
- Vestiges of the former marshland landscape are identifiable as small areas of deciduous woodland and reed beds, particularly along Shell haven Creek which meanders through the area.
- The River Thames provides a riverside setting to the south while the Fobbing Marshes provide an open and undeveloped marshland setting to the north.
- The area is private land and has poor connections with the wider landscape - there is no public access in and around the London Gateway Port and no public access to or along the river.
- Portside cranes form distinctive local landmarks.

Components that Contribute to Character

Landscape Component	Description
Geology	The geology is characterised by bedrock comprising clay, silt and sand of the Lambeth Group and the London Clay Formation. This is almost entirely overlain by clay and silt tidal flat deposits.
Topography	Landform is low-lying ranging between 0-5m AOD and remains relatively level across the area, being artificially reclaimed from former open marshland.
Hydrology	Shell haven Creek bisects the area connecting with Salt Fleet in the north and Shell Haven in the south. The rest of the area has been artificially drained. The whole area falls within Flood Zone 3.
Land Cover and Biodiversity	Small areas of deciduous woodland and reed beds are interspersed throughout the area. These are all priority habitats and the reed bed in the north is associated with Manorway Fleet and is designated as a Local Wildlife Site due to it being one of the largest stands in the borough.
Land Use	Land use is characterised by an expanse of industrial buildings and associated infrastructure. It also incorporates the on-going London Gateway expansion development which comprises a new deep-water port and a large logistics park. Holehaven Creek SSSI abuts the eastern boundary.
Settlement Form and Setting	The settlement form is generally dense and includes buildings and structures associated with the refining, storage and distribution of oil as well as a large commercial warehouses and port facilities. Areas of greenspace do occur between the industrial structures including Shell Haven Creek which retains remnant marsh characteristics and connects with Fobbing Marshes beyond to the north. The River Thames provides a riverside setting to the south while the Fobbing Marshes provide an open and undeveloped marshland setting to the north.
Built Form and Style	The area comprises a series of large scale rectilinear warehousing units arranged in a grid pattern parallel to the berths along the river frontage and defined by service roads. Modern buildings are typically formed of corrugated steel with low pitched roofs.
Sense of place	Shell haven was once a hive for industrial activity with oil cylinders dominating the landscape and providing a strong sense of place. Due to the on-going redevelopment at London Gateway, the landscape appears in a state of flux with scrubby roadside vegetation and the presence of construction traffic in the area.
Connectivity	The area has poor connections with the wider landscape being private land. The area is served by a main road and the mainline railway, but there is no public access in and around the London Gateway port and no public access to or along the river.
Historic Landscape and Time Depth	Development on this large area of reclaimed marshland began as a 16 th century port. The building of the London, Tilbury and Southend Railway at the beginning of the 1870s attracted the construction of an oil refinery and storage facility in the late 19 th century which became known as Shell Haven. It underwent expansion and regeneration throughout the 20 th century to increase capacity. The biggest development came post-war in 1947 with the construction of an industrial unit designed for Middle East crude oil on a 400ha plot. The Coryton Refinery remained in operation until 2012. The Shell Haven site was slowly closed over a number of years since the refinery was decommissioned in 1999. This has made way for the expansion of the London Gateway deep water container port and associated logistics park.
Cultural Associations	In the early days of the port, it was renowned for being a major livestock import centre for the UK attracting trade from continental Europe. The shift towards industrialisation saw the rise of explosives and petroleum production and storage at Shell Haven, with fuel oil being produced for the Admiralty. A number of different types of oils would go on to be produced at Shell Haven including the first high viscosity index oils. A paraffin wax plant was also set up in the area.
Urban Structure	As this is an industrial area it lacks urban structure typical of a settlement. There is a 'gateway' to the area at the roundabout to the north of the Coryton Oil Refinery entrance. There is also a gateway to the London Gateway development in the west connecting with the edge of Stanford-le-Hope.
Scenic Qualities	There are no public footpaths in this almost entirely private commercial. The mass of steelwork and chimneys associated with the oil refinery created clutter on the skyline and detract from the open views across the marshes. The industrial nature and variable condition of elements results in an area of relatively low scenic quality.
Perceptual	The prominent industrial buildings with a constant flow of associated traffic give rise

Landscape Component	Description
Qualities	to a busy landscape, albeit with a sense of remoteness.
Visual Character and Views	There are panoramic views from edges of the area across the river to south and marshes to the north (although these are not publicly accessible). The oil refinery and tall storage cylinders are visually prominent as too are the portside cranes and these form distinctive landmarks in the area.

Character Evaluation

Landscape Quality/ Condition

- G1.22 Landscape quality (condition) is influenced by the condition of components. The presence of buildings and structures has been primarily designed for their function and not necessarily their aesthetics results in incongruous features in this open marshland landscape. The scrubby appearance of vegetation, industrial style materials and boundaries in poor condition detract from landscape quality, although the redevelopment of the site may change this.

Past change

- G1.23 Since becoming an important industrial hub during the 19th century, the area has seen further expansion with oil refineries and related works once extending the along the whole riverside. Since the turn of the century, the oil industry has slowly been phased out and now the renowned port is being redeveloped with a large logistics park occupying a large area.

Key sensitivities and valued attributes

- G1.24 The following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The remnants of the former marshland landscape including areas of deciduous woodland and reed beds, particularly along Shell haven Creek, which provide a sense of history and biodiversity.
 - The open and undeveloped character of Fobbing Marshes that provides an important rural marshland setting to the north.

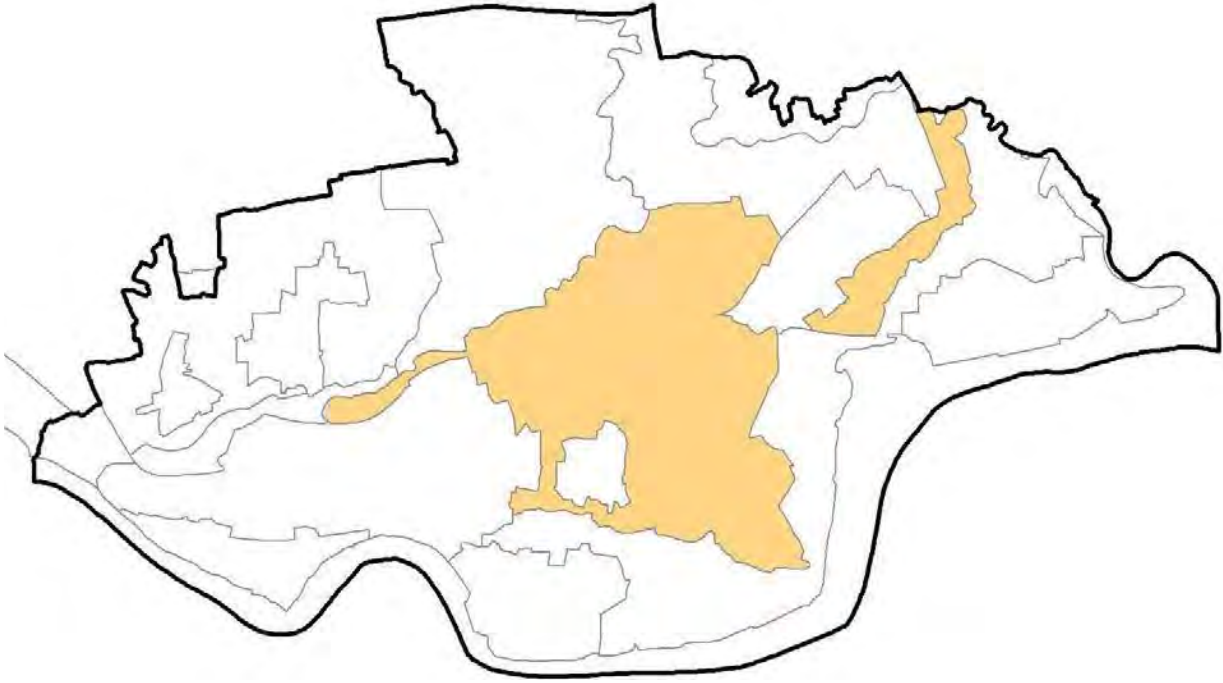
Vision

The vision for this character area is a high quality industrial and distribution park with attractive boundaries and gateways, and set within an intact and bio-diverse green infrastructure network with features of visual interest and good visual and physical connections to the Thames (including public access to the river).

Guidance to conserve and enhance character

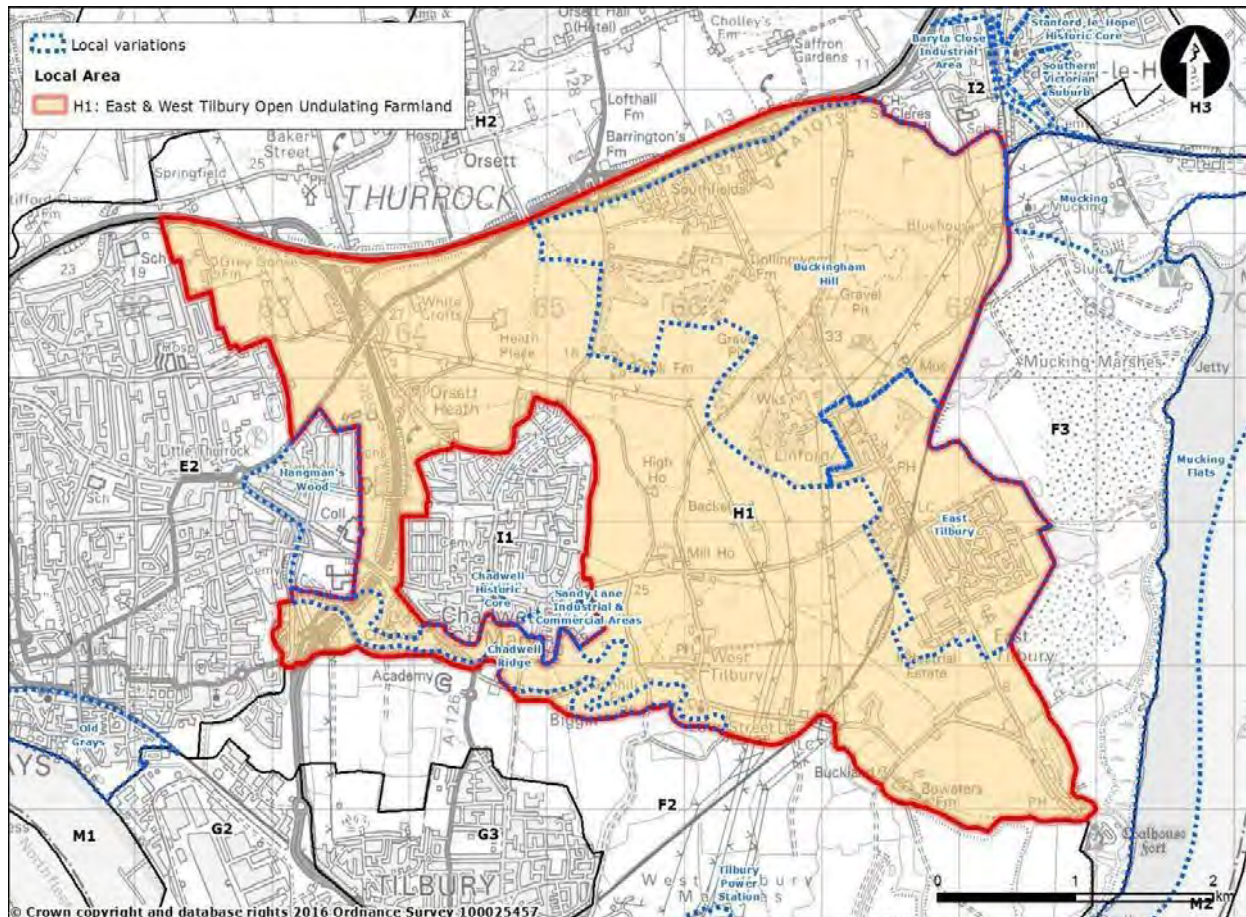
- Enhance the green infrastructure network through creation of additional greenspaces supporting native marshland vegetation, and manage these areas for biodiversity interest, their screening function to industrial uses, and public access. Enhance ecological value of existing greenspaces where possible.
- Soften existing harsh edges through additional planting or green buffers using marshland vegetation. Use of SUDs to provide additional wetland habitat.
- Consider providing additional public access and interpretation facilities to enhance opportunities to visit and learn about the area. Aim to provide public access to and along the Thames riverside and opportunities for views along and across the River.
- Encourage use of high quality materials in any new buildings and boundary features – aim to improve boundaries in poor condition and create an appropriately rural boundary to the Fobbing Marshes and Holehaven Creek.
- Create distinctive gateways at entrance points to the area to create a unique sense of place.
- Enhance vegetation along Manorway to screen new development from settlement on higher ground in the north.
- Enhance the streetscape through the implementation of a coordinated material palette

LCT H: Open Undulating Farmland



- H1.1 This landscape type is defined by the gently undulating rural farmland that lies between the marshes to the south and east, the Mar Dyke river catchment to the west and the slopes beneath the Langdon Hills to the north. The predominant geology of clay and sand underlying deposits of sands and gravels marks a localised area of productive sandy brown soils of 'very good' agricultural quality, resulting in much of the land being under arable cultivation.
- H1.2 There are three character areas associated with the 'Open Undulating Farmland' character type
- **LCA H1: East & West Tilbury Open Undulating Farmland**
 - **LCA H2: Orsett and Horndon-on-the-Hill Open Undulating Farmland**
 - **LCA H3: Fobbing Ridge Open Undulating Farmland**

LCT H1: East & West Tilbury Open Undulating Farmland



Location and Boundaries

- H1.3 East & West Tilbury Open Undulating Farmland is located between the settlements of Grays and Stanford-le-Hope/ Corringham but excludes the settlement of Chadwell St Mary. The boundary along the southern edge of the area roughly follows the 5m contour line which marks the transition to the marshlands (LCA F2 Tilbury Marshes). The northern boundary of the area is defined by the A13 and A1013, north of which lies the Orsett & Horndon-on-the-Hill Open Undulating Farmland (area H2), where the landscape becomes more rural, with fewer urban/ industrial influences.
- H1.4 The western boundary of the character area is defined by the edge of the built-up area of Grays, and the area continues along the northern edge of Grays encompassing the agricultural fields to the north of the town. The north-eastern boundary is defined by the landform - at the edge of Buckingham Hill and the beginning of the settlement of Stanford-le-Hope and Corringham. The eastern and south-eastern boundary is formed by the edge of the settlement of East Tilbury and the transition to the marshland landscape of F3 Mucking Marshes.

Photos



The Bata Factory, East Tilbury, the former factory complex of the British Bata Shoe Company.



A previous sand and gravel extraction pit at Buckingham Hill. The elevated situation enables extensive views southwards across the Tilbury Marshes.



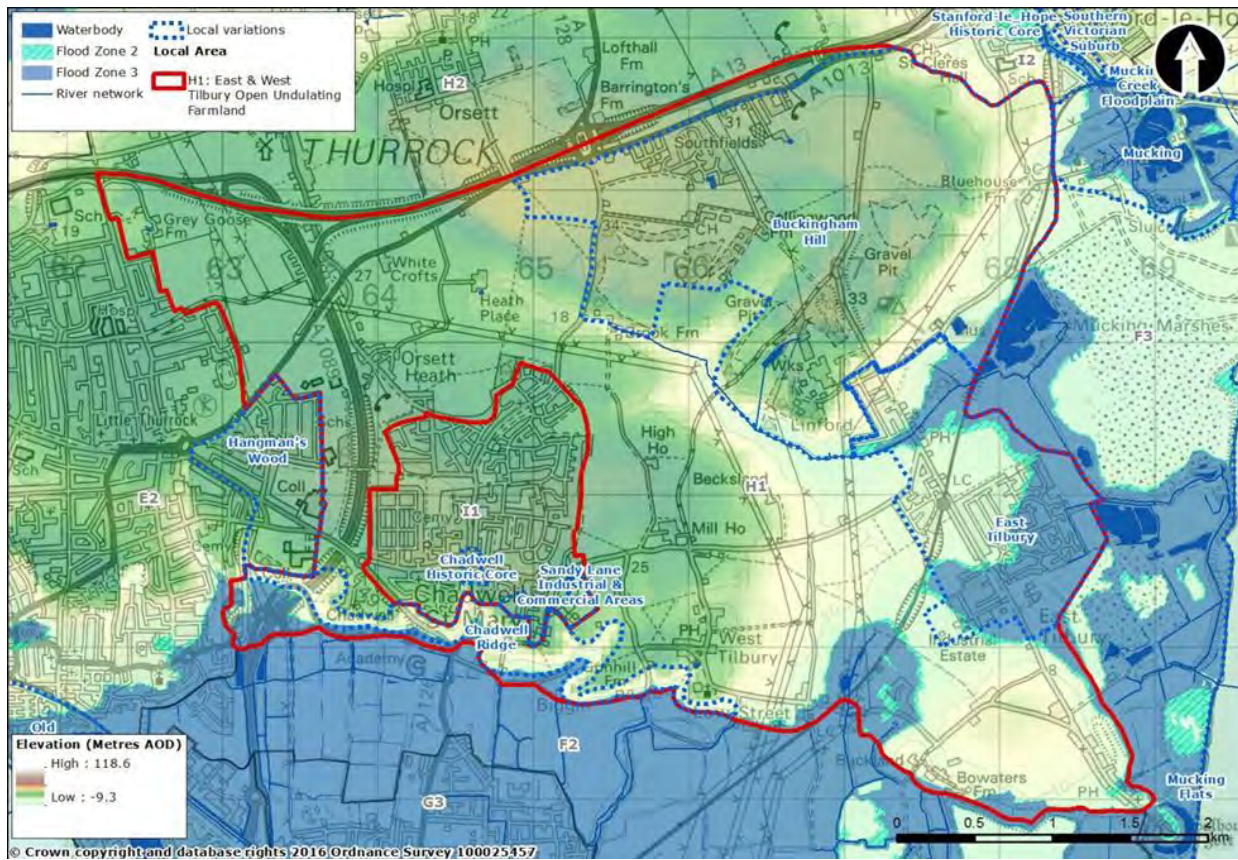
St James Church, Grade II* listed, at West Tilbury is an important landmark on the skyline, located above the Chadwell Scarp with industry at Tilbury visible in the left of the picture.

Local Scale

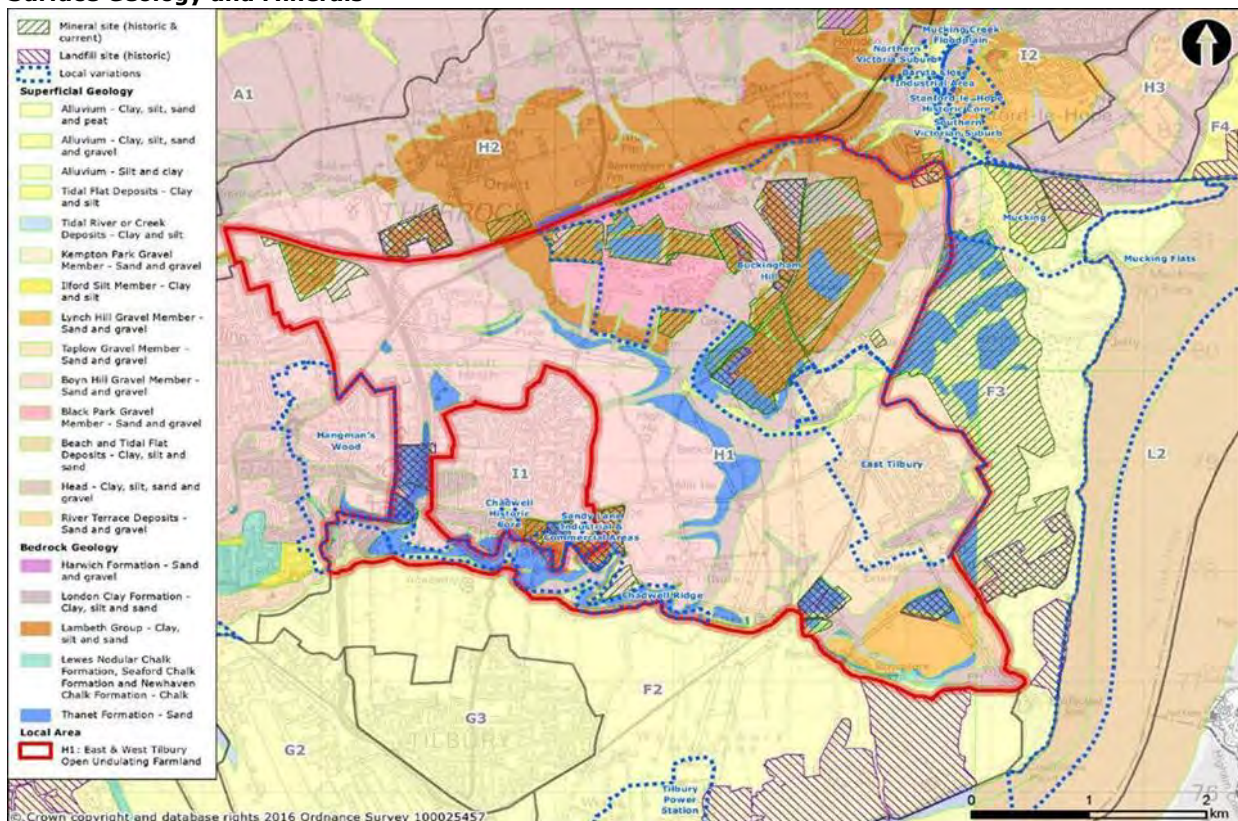
Landscape Character Profile

Landscape Character Area:
H1: East & West Tilbury Open Undulating Farmland

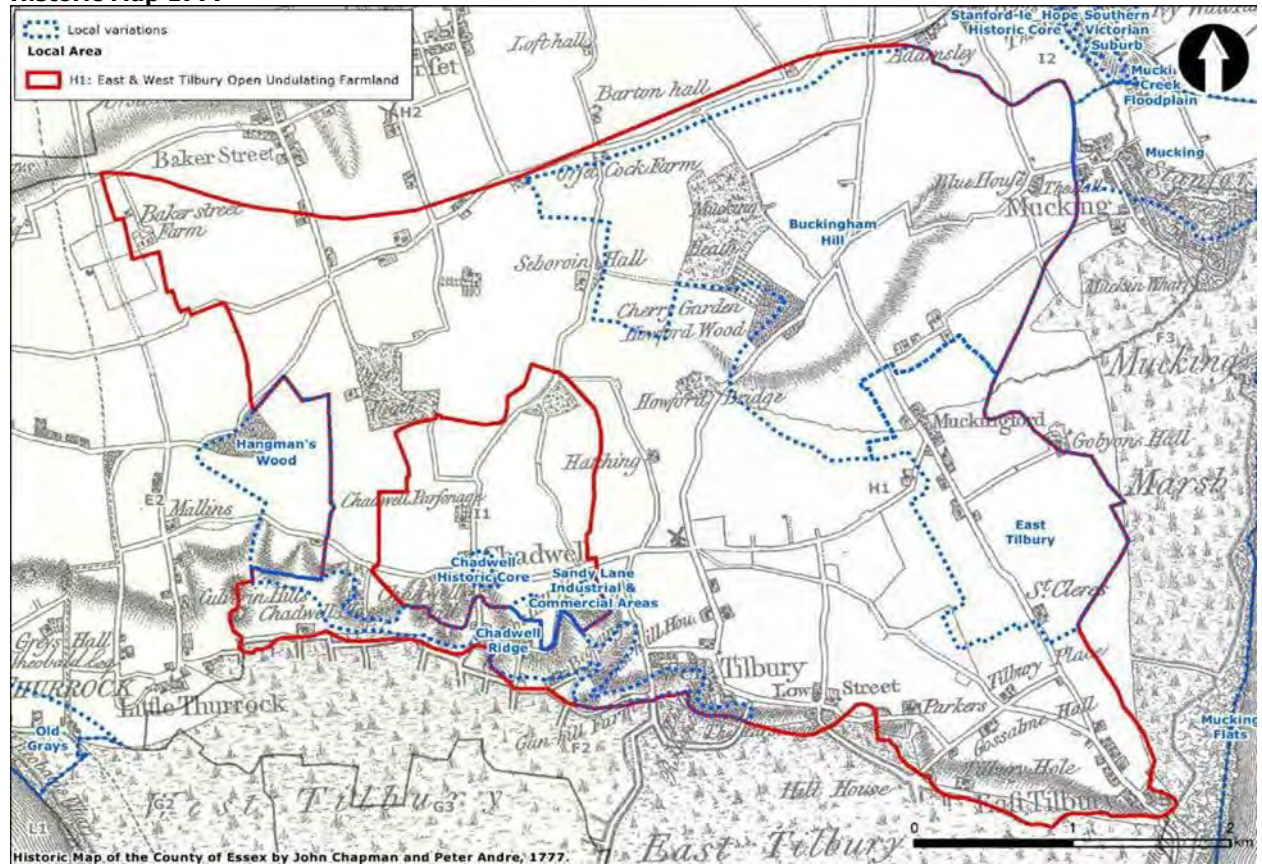
Topography and Drainage



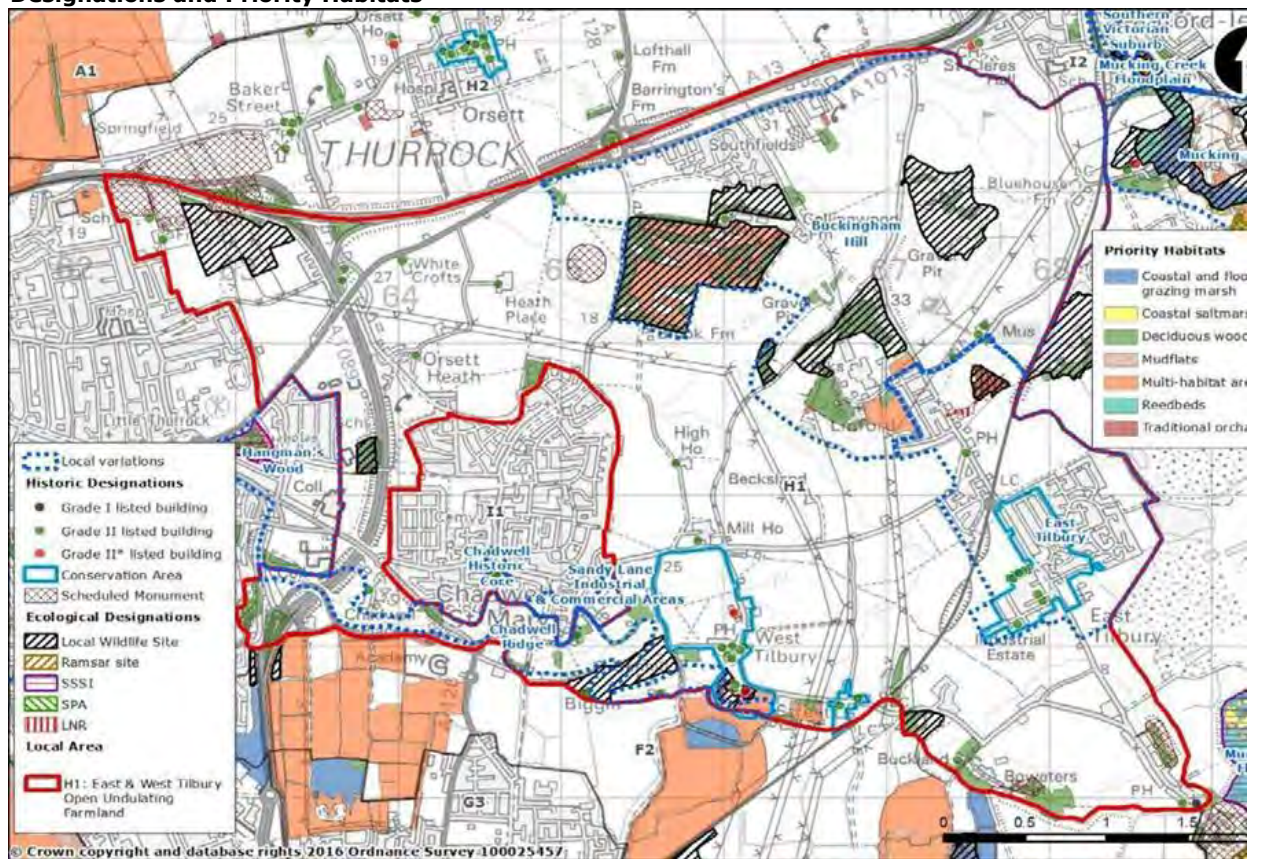
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- H1.6 This area forms a broad swathe of farmland between the large settlements of Chadwell St Mary and Stanford-le-Hope/ Corringham. It is an undulating semi-rural landscape with localised hills, enabling expansive views to the surrounding landscape. Settlement includes the large villages of East Tilbury and Linford and the smaller villages of Orsett Heath, Orsett Cock, West Tilbury and East Tilbury old village, as well as dispersed farmsteads.

Key Characteristics

- Undulating landform, characterised by an underlying geology of sands, silts and clays, dropping in elevation to the south and east, and with a noticeable 'scarp' slope to the south.
- The scarp supports defensive military sites e.g. the gun batteries at Bowater's Farm and East Tilbury Village.
- Panoramic views from high points, across the neighbouring marshes and the Thames estuary as a result of the relatively elevated landform.
- Productive agricultural land (arable and pasture) with occasional small copses (hawthorn, elm, field maple and ash) as a result of the generally well drained, coarse and loamy soils over gravel.
- Mineral extraction sites (active and restored) are noticeable features of the landscape, as a result of surface geological deposits of river terrace sands and gravels (related to the River Thames).
- Semi-rural and open character, as a result of regular- large sized agricultural fields bounded by gappy hedgerows and relatively few trees (much lost post 1950, including due to Dutch Elm disease). The landscape provides a rural setting to Chadwell St Mary and Stanford-le-Hope as well as a rural backdrop to the adjacent marshes.
- Remnants of a historic settlement pattern of villages linked by a network of minor roads and lanes lined by hedgerows.
- Small tributary streams flow south and east to the marshes, forming minor valleys.
- Remnant Thames Terrace grasslands (semi-natural or unimproved grassland sites, now a scarce habitat but would formerly have spread along the ridge of sand and gravel from Grays eastwards through Chadwell St Mary and then upwards towards the Langdon Hills).
- Built form typically includes a mixture of pre-17th century timber framed buildings and later buildings in brick (red, yellow stock or grey gault) with lime washed render or weather boarded cladding.
- The 1930s BATA factory (designed by the Czech architects, Vladimir Karfik and Frantizek Gahura) and the adjoining distinctive 'garden village' at East Tilbury provide a distinctive feature of the area.
- Occasional areas of historic field patterns, common land, historic lanes and tracks (e.g. Hornsby Lane between Orsett Heath and Orsett) and medieval earthworks, provide time depth to the landscape.
- Noticeable urban influences such as pylons, gravel extraction operations, industrial development and modern residential development (in this and adjacent character areas).

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock is comprised predominantly of sands (Thanet Formation) with a band of sand, silt and clay (Lambeth Group) to the north of the area and an outcrop of London Clay Formation at Buckingham Hill. The surface geology in the south of the area is influenced by river terrace sands and gravel deposits, largely as a result of the historic migration of the River Thames.
Topography	Topography is generally smooth and gently undulating, but with a pronounced escarpment along the southern edge of the area. The area forms an area of relatively higher land (up to 30m AOD) between the Mar Dyke Valley to the north and the marshlands to the south. The scale of the landform is relatively large.
Hydrology	Valley feature with stream that flows east to Mucking Flats, separates the settlements of Linford and East Tilbury. Small tributary streams flow south and east to the marshes. The south eastern corner of the area lies within the flood zone, except the localised area of higher ground in the far south eastern corner around the historic settlement of East Tilbury (Princess Margaret Road).
Soils	Sand and loam soils and river terrace drift soils characterise the southern part of the area, supporting relatively good (Grade 2) agricultural soils which are generally well drained, coarse and loamy soils over gravel.
Land Use	Predominantly mixed arable and pastoral farmland. The area around Linford/ Buckingham Hill has more of a diversity of land uses and is extensively covered by past and current sand and gravel pits. The land uses here include rough grazing on the ridge top, mineral extraction, Durox Industrial Plant, landfill, agriculture and recreation including golf courses.
Land Cover and Biodiversity	Predominantly medium- large scale agricultural fields (mixed pasture and arable) divided by hedgerows and fences. There are also hedgerows along historic lanes and tracks e.g. Hornsby Lane (between Orsett Heath and Orsett). There is limited tree cover, primarily due to the loss of hedgerow elm trees, resulting in a fairly open landscape. However, there are some small copses (hawthorn, elm, field maple and ash) around West Tilbury, Low Street and east of Princess Margaret Road around Coalhouse Battery. There is a concentration of woodland around the Durox Industrial Plant near Linford. Linford Wood (to the east of Linford), comprising a mix of Hawthorn scrub, Elm scrub woodland, an old willow plantation and a small area of maturing Pedunculate Oak, represents one of the few woods and is part of a Local Nature Reserve. There is also (thought to be²³) a small ancient woodland fragment at Rainbow Shaw which is designated as a Local Wildlife Site. Thames Terrace grasslands exist on the escarpment at Broom Hill and West Tilbury and at Mucking Heath (now a scarce habitat but would formerly have spread along the ridge of sand and gravel from Grays eastwards through Chadwell St Mary and then upwards towards the Langdon Hills) – these are now Local Wildlife Sites. Areas comprising a mosaic of unimproved acid grassland, exposed substrates and other habitat features, such as scrub and wetland features, have developed on disturbed land at Buckingham Hill, Mucking Heath and Orsett Camp Quarry (now of biodiversity interest and designated as Local Wildlife Sites).
Settlement Pattern / Form	The landscape retains remnants of an historic settlement pattern of small villages within a wider agricultural landscape (most notably the medieval agricultural village of West Tilbury which has survived more or less intact and is designated a Conservation Area²⁴); and the linear (old) village of East Tilbury in the far south east of the character area). These villages (including the historic group of buildings at Low Street) are situated on top of an escarpment (part of the Chadwell Scarp, which becomes more strongly defined further west around Chadwell St Mary), sharing prominent and strategic positions overlooking the marshes. Some of the modern settlements have developed from historic origins – Linford was built by developers in the 1900s and grew in the 1930s, at the location of the historic hamlet of Muckingford centred at the junction of Muckingford Road and East Tilbury Road. Linford's name came about because the land developer's considered 'Muckingford' too unglamorous. Development of the village began in 1900 but really started to grow after the arrival of the Bata Shoe Factory and the

²³ Thurrock Green Grid Strategy: Biodiversity Study 2006-2011

[https://www.thurrock.gov.uk/sites/default/files/assets/documents/ex125_nppf_greengrid_biodiversity_2006.pdf]

²⁴ <https://www.thurrock.gov.uk/sites/default/files/assets/documents/west-tilbury-character-appraisal.pdf>

Landscape Component	Description
	railway station in the 1930s. Orsett Cock is a 20th century settlement but was originally farmland surrounding Orsett Cock Farm. Orsett Heath was in existence in 1777 (see the historic map) as an area of heathland with small individual dwellings but has now almost merged with Chadwell St Mary. East Tilbury is, however, a modern planned town, designed in the same style as a Garden City, with low-density housing, a heavily landscaped setting, and separation of manufacturing and residential areas, a civic core and pattern of streets that avoided monotony²⁵. Aside from the settlements, the landscape retains a semi-rural pattern of dispersed farmsteads, mainly located next to rural roads and linked by a network of minor roads and lanes.
Building Style	Buildings include timber framed pre-17th century buildings with timber external walls, and later buildings in brick (red, yellow stock or grey gault) with lime washed render or weather boarded cladding. Historic barns are typically timber framed with thatched or tiled roofs and horizontal weatherboard walls, typically white or black. There is a distinctive area of planned 20th century settlement at East Tilbury/ Linford comprising the former factory complex of the British Bata Shoe Company, a large housing development of some 352 houses in a 'garden village' setting (a Conservation Area) and more recent 20th century residential estates. The oldest properties dating from the 1930s (in Bata Avenue) are in the Czech style and set in a staggered 'chequerboard' layout while the more recent houses had pitched roofs and were more 'English' in style.
Historic Landscape and Time Depth	Much of the landscape has been changed since the 1950s, although there are pockets of pre-18th century enclosure (one along Butts Lane and one just north of Orsett Heath) and Medieval 'common land' remains in the vicinity of West Tilbury, including the village green itself and a Medieval 'open field' system in the area of The Great Common Field bounded by Rectory Road, Turnpike Lane, Blue Anchor Lane and Muckingford Road (now part of West Tilbury Conservation Area). The Roman Road towards Tilbury attests to the importance of this area as a major transport route in accessing the Thames and the historic crossing point to Cliffe. In the Medieval period the focus was on agriculture and the rural Medieval settlement pattern is recognisable today. The extraction industry began to develop rapidly from the 18th century. In the 1930s the BATA factory (some buildings of which are now listed and part of a conservation area) arrived and in the 20th century new and expanding settlement gained pace. Key Historic Landscape Types in this area are: 20th century agriculture (historic farmland with 1950s boundary loss), leisure (golf courses), mineral extraction, and some remnants of 18th to 19th century enclosure (particularly around West Tilbury) and woodland. There are two small areas of pre-18th century irregular enclosure – one along Butts Lane and one just north of Orsett Heath. The historic part of East Tilbury village in the south east of the character area has developed incrementally but retains some historic buildings including the medieval parish church. The village grew in the Saxon period, probably benefitting from the river crossing and marshland grazing²⁶. Its commanding views across the low-lying Thames river plain have given the village considerable strategic significance. This has led to the development of military defences close to the river. There are two batteries (both scheduled monuments) close to Coalhouse Fort (located within area F3 Mucking Marshes). One, the East Tilbury battery, was built in 1889/90 to support Coalhouse Fort with long-range fire and holds an important place in the complex evolutionary sequence of defensive installations both at East Tilbury itself and in the wider context of the turn of the century defence of London. The other is a Second World War anti-aircraft battery at Bowaters Farm which forms the latest part of a series of important defensive installations at Coalhouse Point which illustrate the development of coastal defences from the Tudor period to the mid-20th century.

²⁵ East Tilbury Historic Area Appraisal, English Heritage, 2007

²⁶ East Tilbury Historic Area Appraisal, English Heritage, 2007

Landscape Component	Description
	There are also some earthworks by West Tilbury Church that are designated as a scheduled monument, and several listed buildings. In the north of the character area, to the east of Heath Place, a Scheduled Monument is designated for earthworks related to a Neolithic causewayed enclosure and an Anglo-Saxon barrow cemetery. In the far north western corner of the character area part of the complex of crop marks at Orsett, also designated a Scheduled Monument is found. Orsett Heath was once part of a large heathland and woodland habitat mosaic which included Biggin Hill and which reflect the free draining and less fertile soils associated with Lambeth Group sands ²⁷ .
Cultural Associations	The BATA estate was designed by the Czech architects, Vladimir Karfik and Frantizek Gahura, who made significant contributions to the international modernist movement in the 1920's and 1930's. Emily Mary Osborn, a painter from West Tilbury is associated with this area. John Nevison (West Tilbury) was one of Britain's most notorious highwaymen, a gentleman-rogue supposedly nicknamed Swift Nick by King Charles II after a renowned 200-mile dash from Kent to York to establish an alibi for a robbery he had committed earlier that day. The most famous speech of Queen Elizabeth I was given in a field a little bit north of West Tilbury church on 9th August, 1588²⁸.
Scenic Qualities	The rural landscape has limited scenic qualities relating to the gentle undulations and patchwork of fields, within which historic villages form focal features. However, pylons and modern 'suburban' development detract from scenic quality.
Perceptual Qualities	A landscape with moderate sense of tranquillity / rurality – although this is a predominantly rural agricultural landscape it is influenced by nearby built form and industry in adjacent areas as well as transport corridors and pylons in this area.
Visual Character and Views	There are good views over the marshes from the southern escarpment (for example from Turnpike Lane which is one of the strategic views noted in Thurrock's Green grid Strategy), as well as some extensive views from the elevated point of Buckingham Hill– south and east towards the Thames Estuary and the Kent Hills; and north to Sticking Hill and the Langdon Hills. Sense of openness as a result of the large, open arable fields and previous loss of elm and hedgerows.
Landmarks and Skylines	Skylines are often punctuated by buildings or pylons. The skyline of the southern escarpment is generally undeveloped (except for some anomalies on the southern edge of Chadwell St Mary) and provides a visually prominent backdrop to the adjacent marshes. Churches form positive landmark features on the scarp skyline: St James at West Tilbury and St Catherine at East Tilbury. The churches are an important silhouette and landmark from all directions. The BATA factory buildings also form prominent landmarks in the rural landscape.
Landscape Function and Green Infrastructure	This area forms a rural setting to Chadwell St Mary and Stanford-le-Hope as well as a rural backdrop to the adjacent marshes. The area contains some proposed strategic green links (as set out in Figure 4.8 of the Thurrock Green Infrastructure Plan. The open agricultural fields and historic dimension to the landscape at Orsett Heath (including the Scheduled cropmarks to the north and south of the A13) are important to the setting of Grays urban area (see E2: Grays, Chafford Hundred & South Stifford). The open landscape to the west of Chadwell St Mary (between Chadwell St Mary and Little Thurrock/ Grays) is important in creating a sense of separation between Chadwell St Mary and the larger Grays conurbation.

Local Variations in Character

H1.7 Localised areas which vary in character have been identified as follows:

²⁷ Land of the Fanns report

²⁸ <http://www.thurrock-history.org.uk/wtilbury.html>

Chadwell Scarp

- H1.8 The lagoon and marshland at Stone Ness provides a distinctive and naturalistic area which is distinct from the adjacent industrialised areas. It contains bodies of standing water and areas of reed beds enclosed by woodland. The area provides important habitats as well as a green backdrop to the industry and an impression of what the pre-developed marsh would have looked like.

Linford/ East Tilbury

- H1.9 The settlement of Linford/ East Tilbury is a distinctive area within the Open Undulating Farmland. It includes the Bata Conservation Area and 20th century residential development within East Tilbury and Linford, including East Tilbury Station. The Bata Conservation area comprises the former factory complex of the British Bata Shoe Company, a large housing development of some 352 houses in a 'garden village' setting. The oldest properties dating from the 1930s (in Bata Avenue) are in the Czech style and set in a staggered 'chequerboard' layout while the more recent houses had pitched roofs and were more 'English' in style.

Buckingham Hill

- H1.10 This is an area in which there is a concentration of past and current mineral extraction which gives it a distinctive and identifiable character. This area has more of a diversity of land uses and has past mineral workings. The land uses here include rough grazing on the ridge top, mineral extraction, Durox Industrial Plant, landfill, agriculture and recreation including golf courses. The area also includes now rare unimproved acid grassland (designated as Local Wildlife Sites).

Character Evaluation**Landscape Quality/ Condition**

- H1.11 Landscape quality (condition) is influenced by the condition of components. For example, the hedgerows around fields are often gappy or unmanaged which detracts from the condition of the landscape. Mineral extraction sites or unmanaged agricultural land interrupts the flow of the agricultural landscape. There are also signs of tipping. Landscape quality is also influenced by views of industry in adjacent areas.

Past change

- H1.12 In this landscape character area there has been field boundary loss since the 1950s and this, combined with the previous loss of elm, has resulted in a landscape with relatively little tree cover. The A13 has fragmented the landscape, pylons have reduced the rural character of the landscape, mineral workings and land fill sites have altered land form and cover, and some villages have expanded to give them a residential built development has introduced a 'suburban' character and cut the historic cores off from their rural context while others have retained their historic setting.

Key sensitivities and valued attributes

- H1.13 The value of some features is recognised through designations, such as Conservation Areas, Scheduled Monuments and Local Wildlife Sites. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The hedgerow network, trees, woodlands which provide habitats as well as contribute to the visual amenity of the landscape.
 - The semi-natural or unimproved grassland sites including the remnant Thames Terrace

grasslands (now a scarce habitat but would formerly have spread along the ridge of sand and gravel from Grays eastwards through Chadwell St Mary and then upwards towards the Langdon Hills) which provide important habitats.

- The rural and undeveloped character (and rural features such as hedged lanes) that provides a 'breathing space' between as well as a rural backdrop to the adjacent marshes and setting to historic buildings and villages.
- The open landscape to the west of Chadwell St Mary that creates a sense of separation between the Chadwell St Mary and the larger Grays conurbation.
- The human scale of the landscape, formed by features such as farmsteads, trees and the pockets of historic pre 18th century and 18th-19th century fields, which contrasts with the adjacent large scale landscapes alongside the Thames.
- The intact historic rural villages and village cores (including the locally distinctive buildings such as timber framed buildings, lime washed render and weather boarded cladding) which provide a sense of history and contribute to the scenic quality of the landscape.
- The medieval earthworks, medieval field patterns, common land and historic defensive sites (gun batteries) which provide a sense of history.
- The sense of relative tranquillity and rurality (and darker night skies) compared to other parts of Thurrock which provides a breathing space between the conurbations of Grays and Stanford/ Corringham.
- The natural form of the Chadwell escarpment (Chadwell Scarp sub-area) along the southern edge of the area that provides a visual setting to the marshes and supports some rare habitats, including terrace grasslands.
- The undeveloped skyline of the Chadwell escarpment and its historic churches that form attractive landmark features on the skyline, contributing to a sense of history and scenic quality.
- Panoramic views from high points (and particularly the scarp) across the neighbouring marshes and the Thames estuary.
- The Bata Estate, East Tilbury (Linford/BATA sub-area), which provides a distinctive landmark and provides a cultural link to the past.

Vision

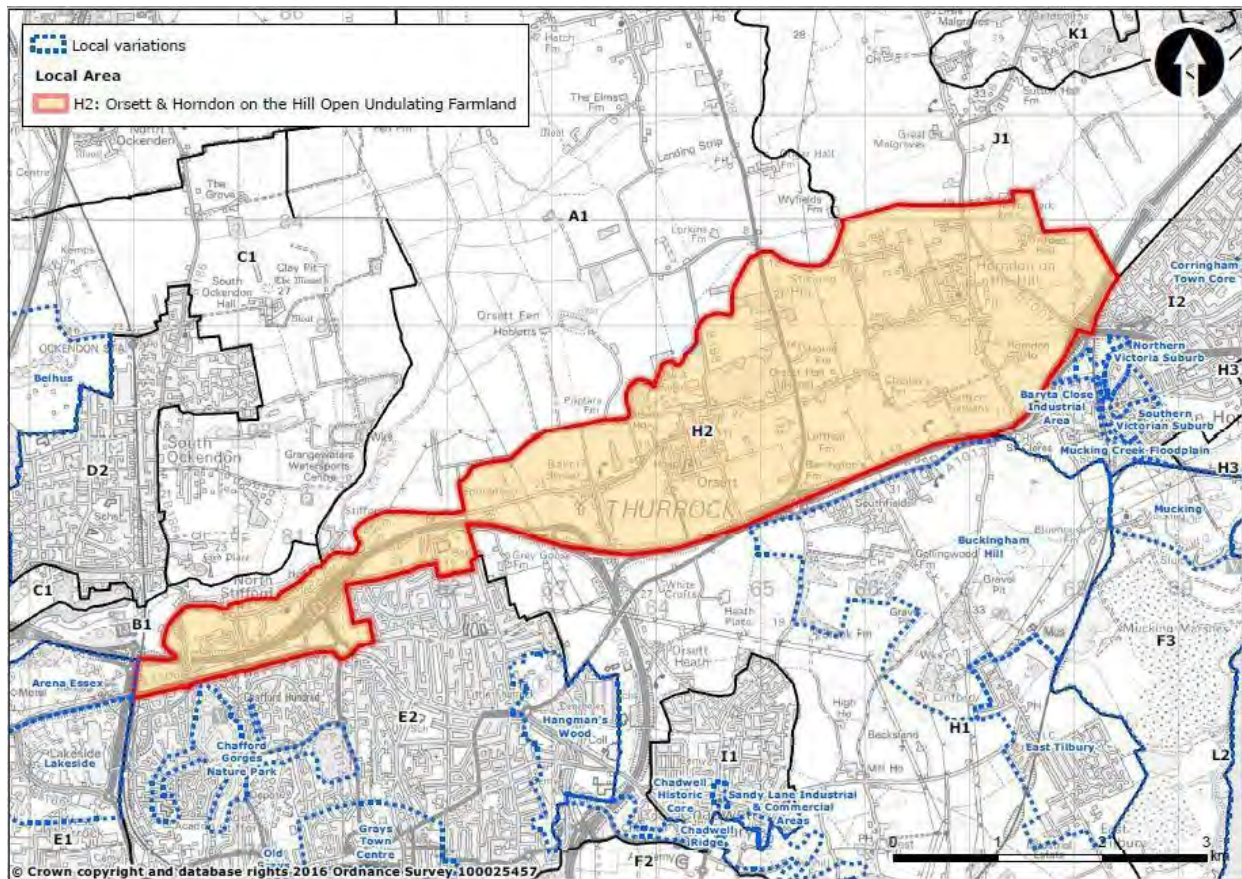
The vision for this character area is: A well-managed and actively farmed rural landscape with a strong hedgerow and woodland network within which historic features (including farmsteads, halls and defensive military sites) and grassland habitats are supported, and which provides a setting for historic villages and larger urban areas.

Guidance to conserve and enhance character

- Conserve the intact rural character of the area as a 'breathing space' between urban areas and as a setting to historic buildings and villages.
- Preserve and enhance the network of hedgerows, hedgerow trees and woodlands through active planting and management - take opportunities to plant trees to compensate for the historic loss of elm (focussing on hedgerows and localised areas of steep land) and opportunities to reinstate historic field boundaries that have been lost since the 1950s.
- Conserve the character of narrow rural lanes.
- Aim to extend and link Thames Terrace grasslands that would formerly have spread along the ridge of sand and gravel through this area, and the unimproved acid grassland mosaics which occur on the disused aggregates sites particularly in the Buckingham Hills sub-area⁸.
- Maintain the human scale of the landscape and features that contribute to this human scale including farmsteads, trees and historic field patterns.
- Maintain the compact and intact nature of historic cores of the villages, and the rich character produced by local vernacular styles and materials including timber frame, brock, whitewash and weatherboarding. Ensure new built development respects the rural vernacular.
- Enhance the visibility and interpretation of historic features such as medieval fields, medieval earthworks, common land, historic defensive sites that provide a sense of history.
- Conserve the sense of tranquillity and relatively dark skies compared to other parts of the Borough - minimise lighting and design any necessary lighting to minimise light spill or glare.
- Consider opportunities to enhance the condition and visual amenity of the landscape through removal or screening of industrial features, as well as more ambitious projects such as undergrounding of pylons.
- Maintain the panoramic views across the marshes to the River Thames – provide opportunities to enjoy these views and consider providing interpretation facilities.
- Take opportunities to enhance former gravel workings, including restoring to agricultural land, incorporating habitats for biodiversity (including unimproved acid grasslands) and recreational opportunities, for example in the Buckingham Hill sub-area²⁹, taking care to balance these uses.
- Maintain the form of the Chadwell Scarp sub-area – aim to restore any ground disturbances to natural profiles.
- Maintain the undeveloped character of the Chadwell Scarp sub-area and its skyline by setting any new built development well back from the scarp edge (and considering removing existing modern structures that are located on the scarp top), and protect and extend its valued terrace grasslands and wooded slopes. Ensure churches and their towers continue to provide focal points on the skyline - new development should not compete for prominence.
- Preserve, and enhance, the character of the Bata Estate in the Linford/ East Tilbury sub-area to retain the distinctive urban character and continued survival of this planned 'garden village' any repairs or alterations should be sensitively planned and executed to be in keeping with the area (refer to the Conservation Area appraisal).

²⁹ See Greater Thames Marshes: Nature Improvement Area - see Objective 2.1.1 for a masterplan for conservation of Thames Terrace Invertebrates

LCA H2: Orsett and Horndon-on-the-Hill Open Undulating Farmland



Location and Boundaries

- H1.14 The Orsett and Horndon-on-the-Hill Open Undulating Farmland Character Area covers the rural landscape to the north of the A13 including the villages of Orsett, Horndon-on-the-Hill and North Stifford. Its southern boundary is formed by the A13, with the **East & West Tilbury Open Undulating Farmland** Character Area situated beyond. The northern boundary is characterised by a gradual transition to the **Bulphan Fenland** to the north and the **Langdon Hills Farmed Slopes** to the north-east.

Photos



The Old Market Hall at Horndon-on-the-Hill, a Grade II listed building dating from the 14th century, creates visual and historical interest in the Horndon-on-the-Hill Conservation Area.

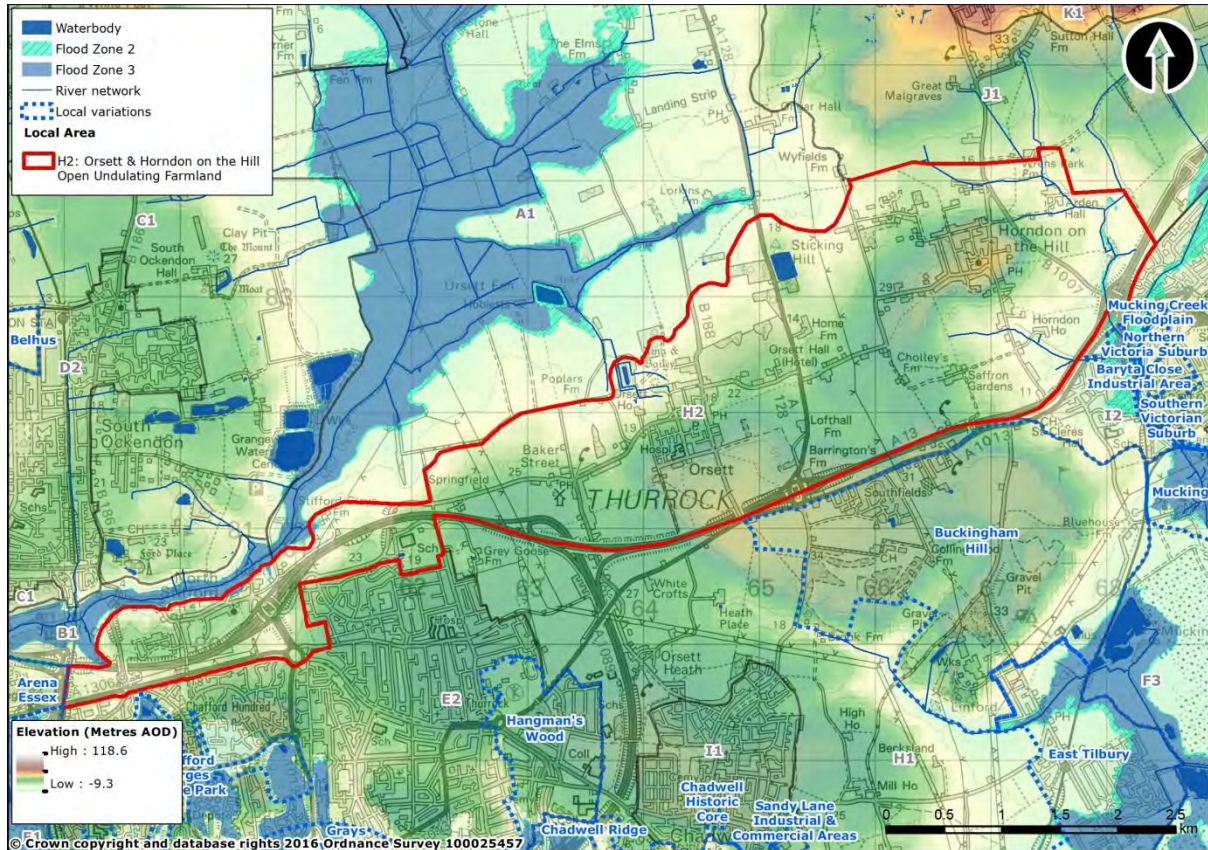


Farmland and a cluster of buildings at Saffron Gardens.

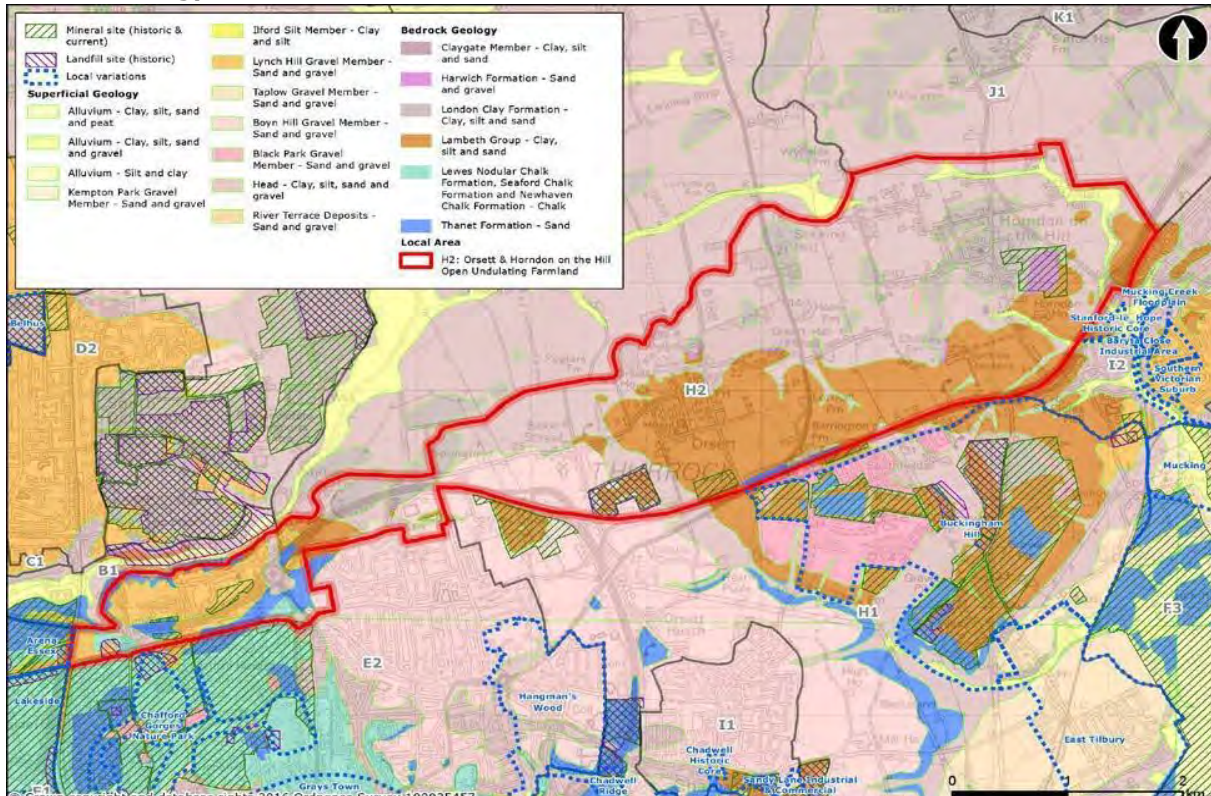


Historic rural lanes provide an intimate, historic character to the landscape.

Topography and Drainage



Surface Geology and Minerals

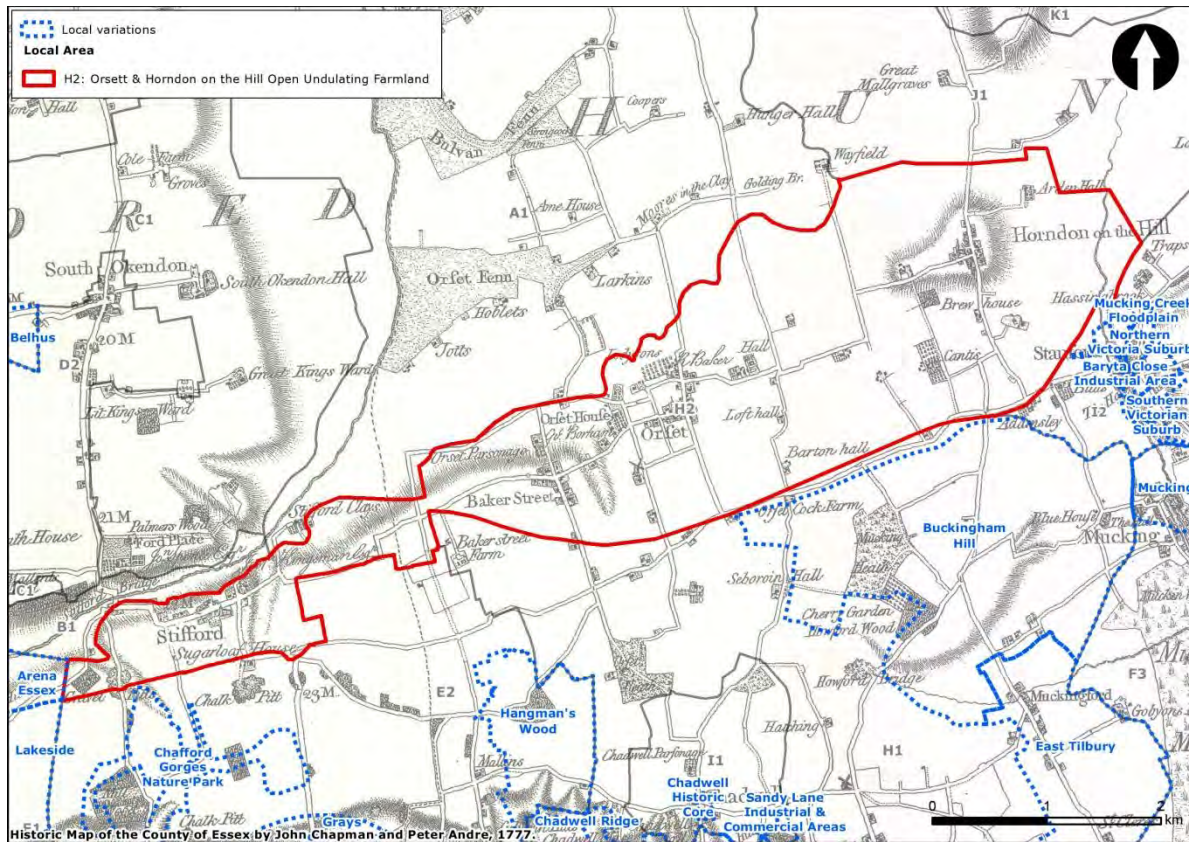


Local Scale

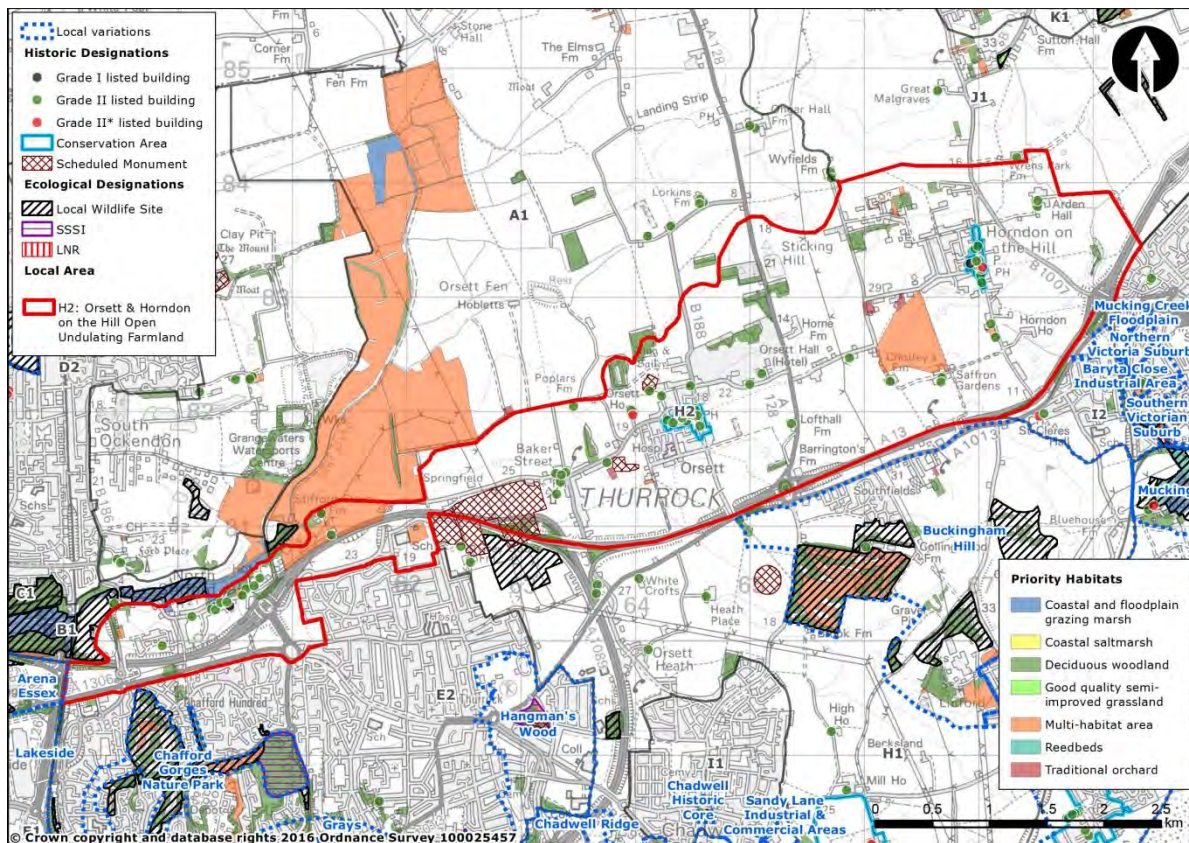
Landscape Character Profile

Landscape Character Area:
H2 Orsett and Horndon-on-the-Hill
Open Undulating Farmland

Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- H1.15 This area has an overriding rural character influenced by agricultural fields surrounding small historic hamlets and a dispersed pattern of farmsteads connected by rural lanes. The elevated nature of the landscape allows for expansive views north across the fen landscape beyond.

Key Characteristics

- Low lying and gently undulating rural area of productive agricultural land with locally prominent hills at Horndon-on-the-Hill and Sticking Hill.
- Underlying sand and loamy soils give rise to good agricultural land with a network of mature hedgerows and hedgerow trees creating a relatively strong landscape structure, with fields of varying sizes but with a generally irregular pattern.
- Small, rectilinear blocks of deciduous woodland typically associated with coverts and historic orchards contribute important elements to an otherwise open farmed landscape and provide historic and biodiversity interest.
- Settlement pattern of scattered historic halls and farmsteads located along minor roads and historic rural villages of Orsett (a nucleated fen edge settlement) and Horndon-on-the-Hill (a compact hilltop settlement).
- A strong historic landscape pattern of ancient rectilinear fields with hedgerows, historic lanes and roads.
- A strong local built vernacular including medieval timber frame buildings and post medieval buildings rendered in plaster and lime wash, red brick and white and black weatherboarding.
- Expansive views from elevated areas, for example from Horndon-on-the-Hill in all directions and from the northern edges of Orsett over the adjacent Bulphan Fen.
- The skyline of Horndon-on-the-Hill is particularly prominent and distinctive, with an attractive wooded skyline and the church spire forming a focal point.
- A relatively high scenic quality as a result of the undulating topography, areas of woodland, historic farmsteads, halls and villages and backdrop provided by the Langdon Hills.

Components that Contribute to Character

Landscape Component	Description
Geology	Clay, silt and sand associated with the Lambeth Group and London Clay Formation form sedimentary bedrock in the area. The Lambeth Group covers much of the southern area Thanet sand underlies most of the area around North Stifford in the west of the area. Clay Formation underlies the northern part of the character area. Superficial deposits of silt, sand and gravel cover much of the lower lying London Clay except for Horndon on the and Stickling Hill which protrude through these deposits.
Topography	The low lying landform gently slopes from 30m AOD adjacent to the A13 in the south to 10m AOD in the north. Horndon-on-the-Hill is situated on a prominent hill rising to 35m AOD in the east and is an important feature in the landscape. Stickling Hill is also locally prominent.
Hydrology	The land is drained from the high points into the lower lying land surrounding this ridge: tributary streams flow from Orsett northwards and westwards into the Mar Dyke and Horndon-on-the-Hill eastwards and southwards into Mucking There is also a small reservoir at Stickling Hill and a small pond known as The Decoy which believed to have once belonged to Bishop Bonner's Palace.
Soils	The Clayey soils found on the sloping land in the northern area and are susceptible to seasonal waterlogging. Much of these slowly permeable soils are classified as Grade 3. The flatter land around the A13 is characterised by sand and loam as well as river terrace drift soils, which are generally well drained, supporting Grade 2 agricultural soils.
Land Use	Mixed arable and pasture fields are the prevalent land uses in the area. Small woodlands remnant orchards are also present. There are also a small number of recreational areas comprising sports pitches relating to the settlements of Orsett and Horndon-on-the-Hill.
Land Cover and Biodiversity	An irregular pattern of small to large agricultural fields with remnant field boundaries. Small, rectilinear blocks of deciduous woodland typically associated with coverts and historic orchards scattered throughout and provide localised areas of enclosure. This is reinforced by mature hedgerows and hedgerow trees to create a strong landscape structure. Although most of this area is farmed, there are a number of deciduous woodland coverts on the slopes around Orsett which are Priority Habitats and recognised as areas of local nature conservation significance in the Local Development Framework. There are also some remnants of traditional orchards and mature trees associated with settlement edges, manor sites and remnant parkland. These features contribute important elements to an otherwise open farmed landscape.
Settlement Pattern/ Form	The settlement pattern reflects the considerable time depth of this area, with the agricultural villages of Orsett and Horndon-on-the-Hill and a dispersed pattern of moated sites and barns of the 15th to 18th centuries still apparent. North Stifford retains its historic linear form along the main High Road, historically centred on the turnpike. Baker Street is concentrated around the crossroads of Stifford Clays Road and Baker Street, also closely reflecting its historic form apparent in the 1777 historic map although it has extended further south. Orsett is a nucleated fen edge settlement located on the sloping land near to Orsett Fen. Horndon-on-the-Hill is a compact hilltop settlement, demonstrating a medieval street with medieval plots, and surrounded by more modern buildings. There are also a number of large houses and farmsteads located along minor roads, and small hamlet of Baker Street.
Building Style	The villages have a strong local vernacular including original medieval timber frame buildings, often subsequently rendered or clad with red brick walls, and post medieval buildings including plaster and lime wash, red brick and weatherboarding (usually painted white on the front or other important elevations and black or tarred on the sides or rear).
Historic Landscape and	There is evidence of human activity in the area dating back to Palaeolithic period

Landscape Component	Description
Time Depth	with worked flint being discovered near to Orsett. Orsett is also home to Bishop Bonner's Palace (a ring and bailey earthwork) and the Springfield style enclosure³⁰ and Iron Age enclosures south of Hill House, Baker Street, both designated as Scheduled Monuments. An extensive cropmark complex west of Baker Street (also partly within H1 East & West Tilbury Open Undulating Farmland to the south), is also designated a Scheduled Monument. These cropmarks represent multi- period settlement from at least the Bronze Age to the medieval period. The landscape contains a readily apparent pattern of early enclosure agricultural land reflected in the rectilinear shape of fields and hedgerows. Historic maps show the presence of orchards and fruit farms in this area on the outskirts of villages, remnants of which still survive today. To the west of Orsett there are some small irregular-shaped fields suggesting early enclosure of heathland. Orsett and Horndon-on-the-Hill, two small agricultural settlements, were important in the Medieval period for trade particularly associated with the wool industry. Orsett dates from at least the 10th century³¹. Horndon-on-the-Hill became an important collection point for wool which was the principal product of the Essex Marshes at the time. The built form provides a sense of history: the historic cores of Orsett and Horndon-on-the-Hill are Conservation Areas and contain a high concentration of Listed Buildings. There are also historic listed halls and farmsteads outside these villages that provide a sense of history. Orsett Hall was a 17th century manor destroyed by fire in 2007 and later rebuilt in a similar style on the same footprint – there was possibly a medieval deer park associated with the Hall³². The historic settlement of Stifford has Anglo-Saxon origins. The village retains its historic character. To the north east of Stifford there is archaeological evidence of settlement, occupied from the Iron Age through to the early Saxon period, during which time the river valley appears to have been deep enough to navigate from the Thames³³. The landscape was historically linked to Orsett Heath to the south (within H1 East & West Tilbury Open Undulating Farmland) and Orsett Fen to the north (within A1 Bulphan Fenland), one of the last fen sites to be reclaimed for agriculture³⁴.
Cultural Associations	Orsett was the original seat of local government for the area and the site of a palace of the Bishop of London in medieval times³⁵. The villages of Orsett and Horndon-on-the-Hill were historically important for trade, including the wool industry, deer and wildfowl. Both Orsett and Horndon-on-the-Hill had a market and fair dating from the 13th and 14th centuries respectively. Horndon-on-the-Hill had a Royal Mint from the 11th century, gaining proto-urban status³⁶.
Scenic Qualities	The gently undulating topography and areas of woodland contribute to the scenic quality, but it is the historic farmsteads, halls and villages which create the greatest visual interest, resulting in a landscape of high scenic quality. Detractors include pylons and roads.
Perceptual Qualities	This area has a rural feel enhanced by the strong relationship of the unspoilt historic villages with their agricultural surroundings. A strong sense of history in the historic buildings, mature trees and woodlands and remnants of parkland landscapes, such as in the use of Scots pine, specimen trees and railings, provides interest and richness. A number of historic tracks and roads cross through the area.

³⁰ Defined as a type of middle to late Bronze Age settlement found in southern and eastern Britain in the The Concise Oxford Dictionary of Archaeology.

³¹ Historic Environment Character Zone appraisal

³² Land of the Fanns report

³³ Historic Environment Character Zone appraisal

³⁴ Land of the Fanns report

³⁵ Thurrock Urban Character Study (2007)

³⁶ Historic Environment Character Zone appraisal

Landscape Component	Description
Visual Character and Views	There are expansive views from elevated areas, for example there are views in all directions from Horndon-on-the-Hill. The view from the south side of Horndon Hill across Stanford-le-Hope/ Corringham and the Thames Estuary to the hills on the south side of the estuary is noted as a strategic view in the Thurrock Greengrid Strategy. There are also notable views north from the northern edges of Orsett over the adjacent Bulphan Fenland.
Landmarks and Skylines	The skyline of Horndon-on-the-Hill is particularly prominent and distinctive, with an attractive wooded skyline and the church spire on the highest part of the hill forming a focal point. The Langdon hills form an attractive rural backdrop to the north of the area. Other landmarks include the windmill at Baker Street, church spires including the Church of St Mary, North Stifford, St Giles Church, Orsett, and St Peter & St Paul, Horndon-on-the-Hill.
Landscape Function and Green Infrastructure	This area provides an area of productive agricultural land that provides an attractive rural setting to the villages of Orsett and Horndon-on-the-Hill. The rural character of the area is particularly important in contrast to the urban conurbation of Grays/ Lakeside to the south. The rural setting the landscape provides to the Bulphan Fenland to the north. Proposed Strategic Green Links as set out in Figure 4.8 of the Thurrock Green Infrastructure Plan traverse the area. There may be potential for new open space/ proposed archaeological park focussed around the extensive cropmarks, as identified in the Green Infrastructure Plan.

Character Evaluation

Landscape Quality/ Condition

- H1.16 This area has a good quality and condition. The built environment within the historic villages is high quality, generally intact and unspoilt. The surrounding landscape is characterised by well-managed hedgerows, lanes and tracks.

Key sensitivities and valued attributes

- H1.17
- Some protection is provided to individual features such as Conservation Areas, Scheduled Monuments and Local Wildlife Sites. These, and other features, should be given particular consideration due to their particular local value or vulnerability to change, including:
 - The character and appearance of the villages of Horndon-on-the-Hill, Orsett and North Stifford, particularly valued for their historic time depth and rural character.
 - The strong local vernacular of timber framed buildings and weatherboarding which provide a sense of history and contribute to the scenic quality of the landscape.
 - Mature trees and hedgerows, which are sensitive to removal because they provide a strong landscape pattern which delineates historic field patterns. Trees and woodlands provide habitats as well as contribute to the visual amenity of the landscape.
 - The historic value of the landscape, closely tied to the historic settlements of Orsett, Baker Street and Horndon-on-the-Hill, including the ancient field patterns and earthworks that indicate early settlement.
 - The rural character and dispersed settlement pattern of isolated farmsteads and nucleated villages which provide a contrast to the large conurbation of Grays/Lakeside.
 - The sense of relative tranquillity and rurality (and darker night skies) compared to other parts of Thurrock which provides a breathing space between the conurbations of Grays and Stanford/ Corringham.

- Attractive historic churches which provide local landmarks on the skyline, particularly the church at Horndon-on-the-Hill which is valued for its prominence in more distant views, providing local distinctiveness and sense of place.
- The skyline of Horndon-on-the-Hill, which is particularly prominent and distinctive, with an attractive wooded skyline and the church spire forming a focal point.

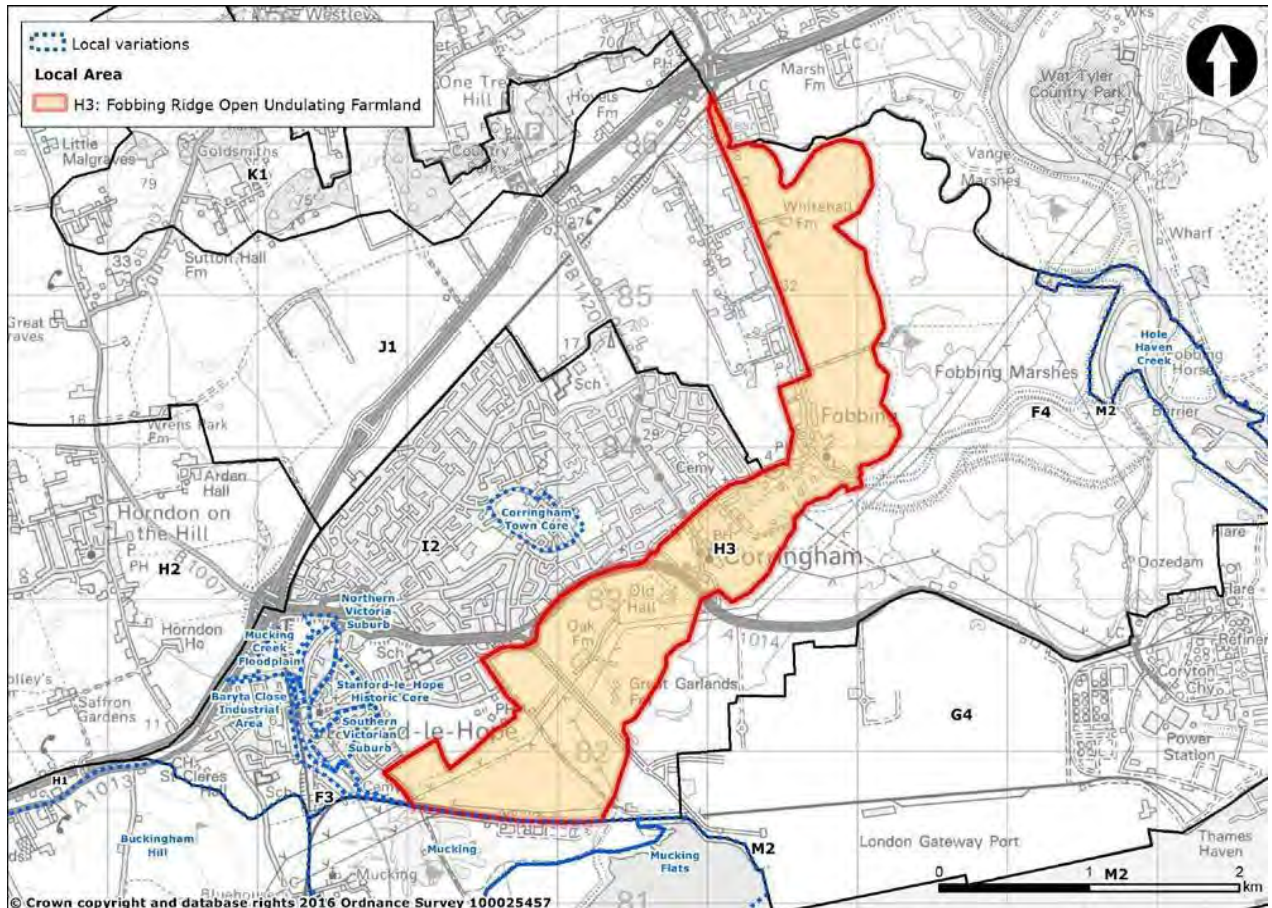
Vision

The vision for this character area is: A well-managed and actively farmed rural landscape with a strong landscape pattern provided by a connected hedgerow and woodland network and a sense of history provided by nucleated villages, historic farmsteads and halls built in the local vernacular and historic earthworks that provide a sense of history.

Opportunities and Guidance

- Conserve the intact rural character of the area as a setting to historic buildings and villages in contrast to the more built up parts of Thurrock.
- Preserve and enhance the network of hedgerows, hedgerow trees and woodlands through active planting and management - take opportunities to plant trees to compensate for the historic loss of elm (focussing on hedgerows and localised areas of steep land) and opportunities to reinstate historic field boundaries that have been lost since the 1950s.
- Conserve the character of narrow rural lanes.
- Maintain the human scale of the landscape and features that contribute to this human scale including farmsteads, trees and historic field patterns.
- Maintain the compact and intact nature of historic cores of the villages, and the rich character produced by local vernacular styles and materials including timber frame, brock, whitewash and weatherboarding. Ensure new built development respects the rural vernacular.
- Enhance the visibility and interpretation of historic features such as medieval fields, medieval earthworks, common land, that provide a sense of history.
- Conserve the sense of tranquillity and relatively dark skies compared to other parts of the Borough – minimise lighting and design any necessary lighting to minimise light spill or glare.
- Conserve the prominence of the church and wooded character of the rural skyline of Horndon-on-the-Hill.
- Maintain the high scenic quality which is a result of the undulating topography, areas of woodland, historic farmsteads, halls and villages and backdrop provided by the Langdon Hills.

LCA H3: Fobbing Ridge Open Undulating Farmland



Location and Boundaries

- H1.18 The Fobbing Ridge Open Undulating Farmland Character Area forms a relatively narrow swathe of agricultural land between the urban area of Stanford-le-Hope/Corringham and the Thames-side marshes. It includes the village of Fobbing. The boundary with **LCA I2: Stanford-le-Hope & Corringham** is defined by the edge of the urban area and the A1014. The boundary with **LCA F3: Mucking Marshes** is delineated by a railway whilst the transition with **LCA F4: Fobbing Marshes & Haven Creek** is less defined, roughly following the 5m contour line. The boundary with **LCA J1: Langdon Lower Hill Slopes** is clearly defined by the road that leads to Fobbing.

Photos



Gently sloping arable fields allow for expansive views across the Thames estuary with pylons and shipping cranes detracting from the largely unspoiled landscape.

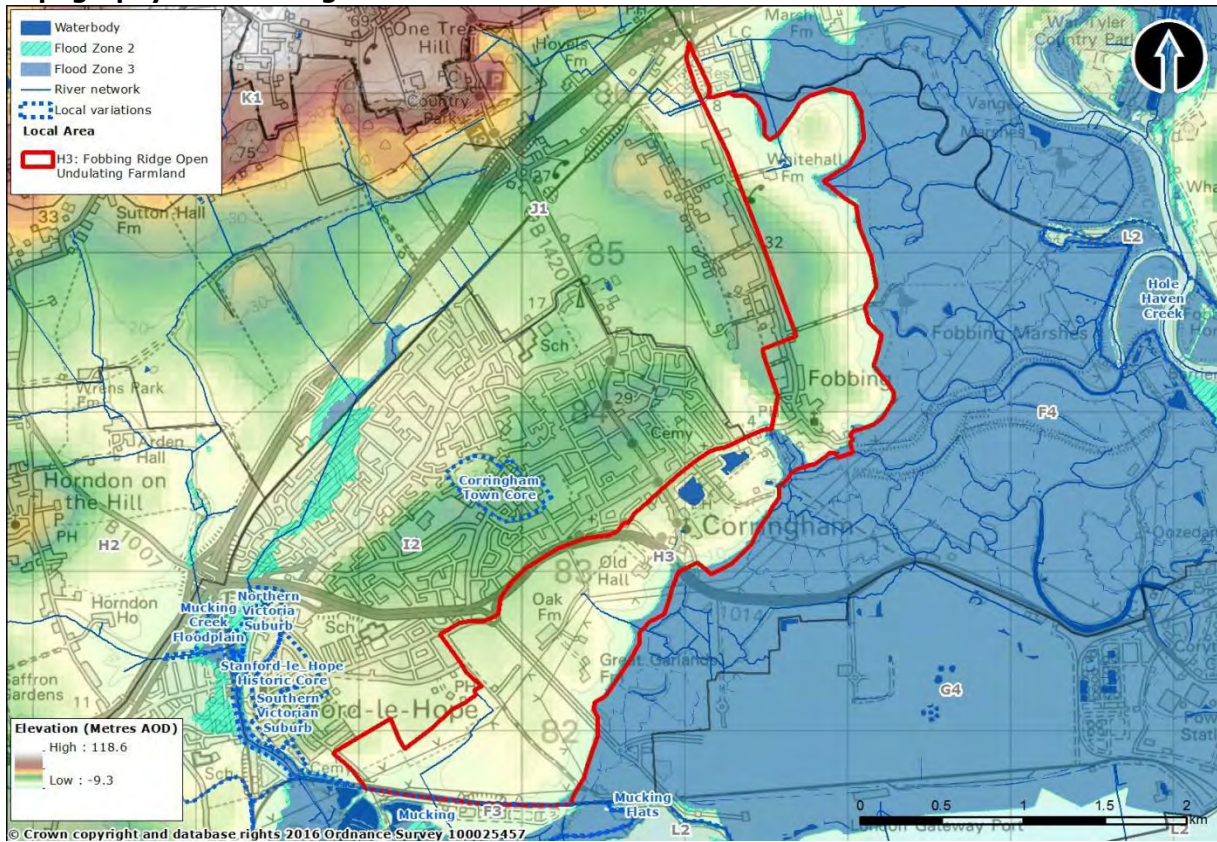


St Mary's Church was at the centre of the earliest development at Corringham with origins dating back to the Saxon era.

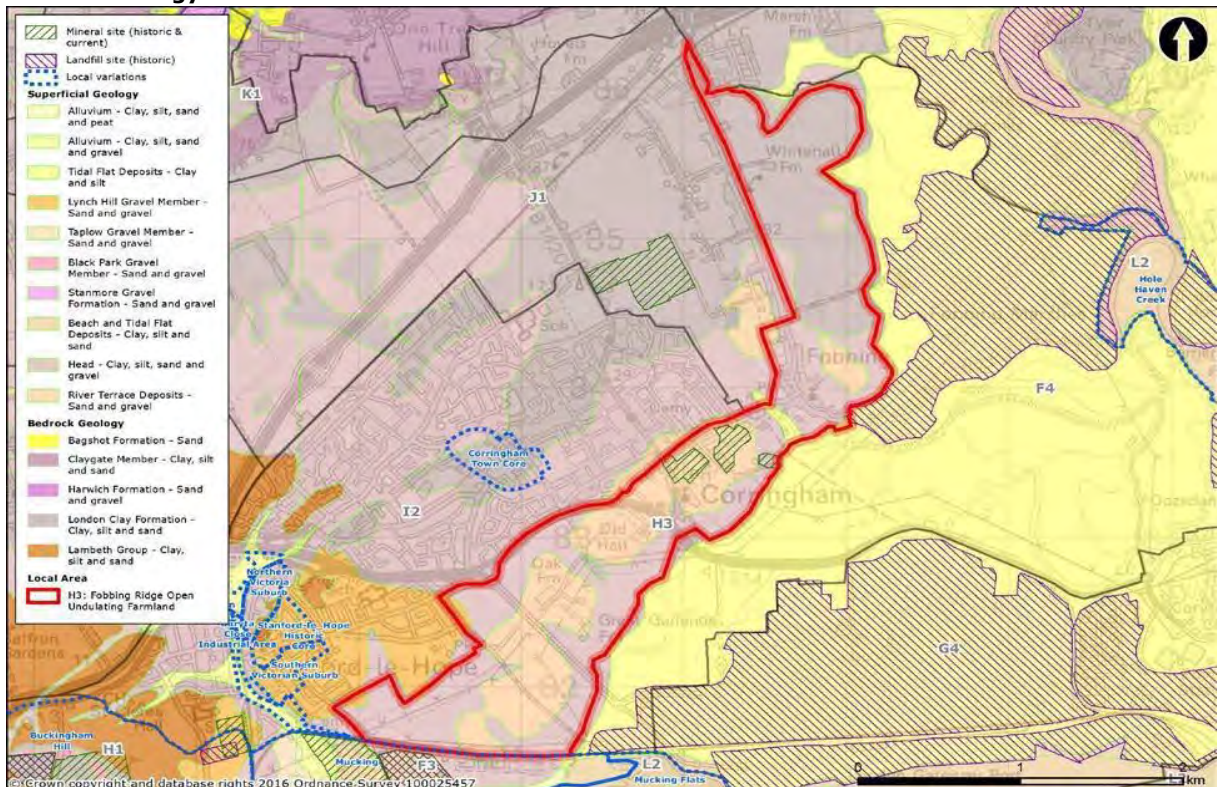


Timber framed buildings at Fobbing have medieval origins but alterations including lime washing and weather-boarding have hidden some architectural details.

Topography and Drainage



Surface Geology and Minerals

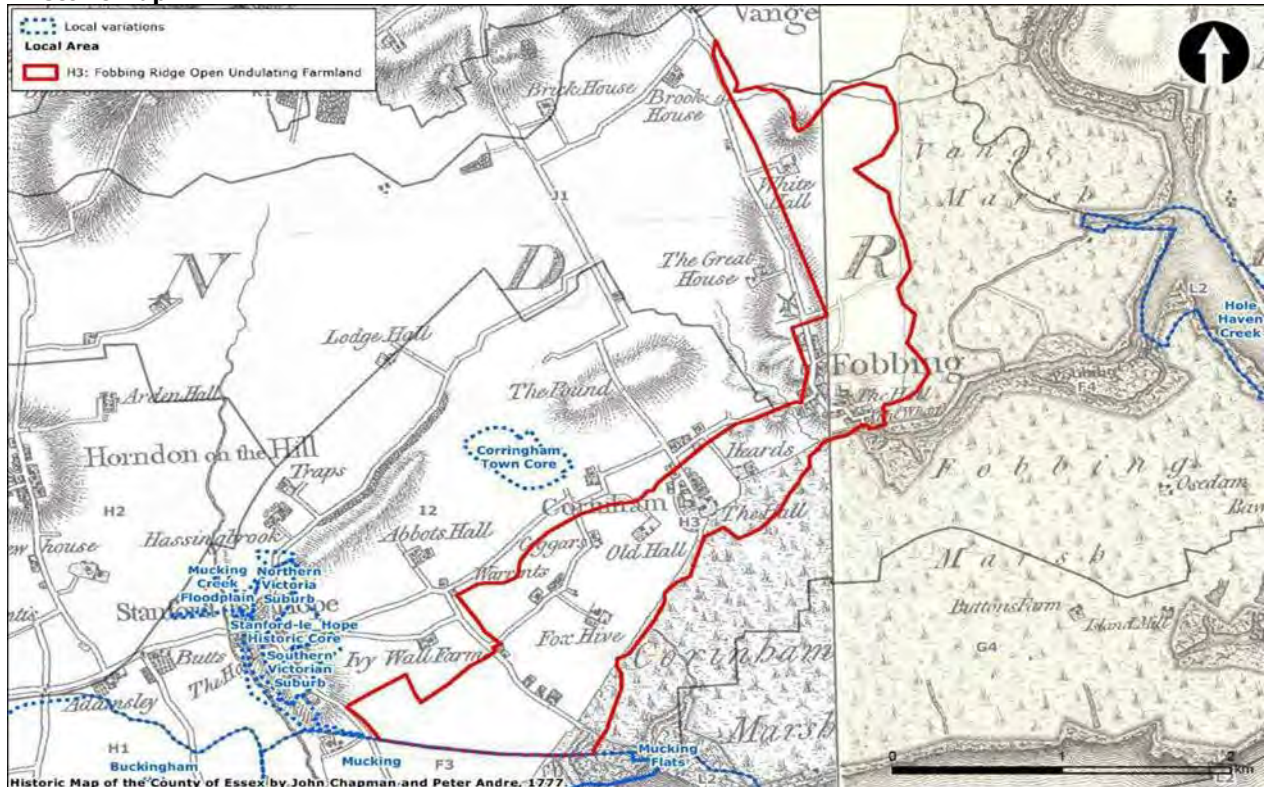


Local Scale

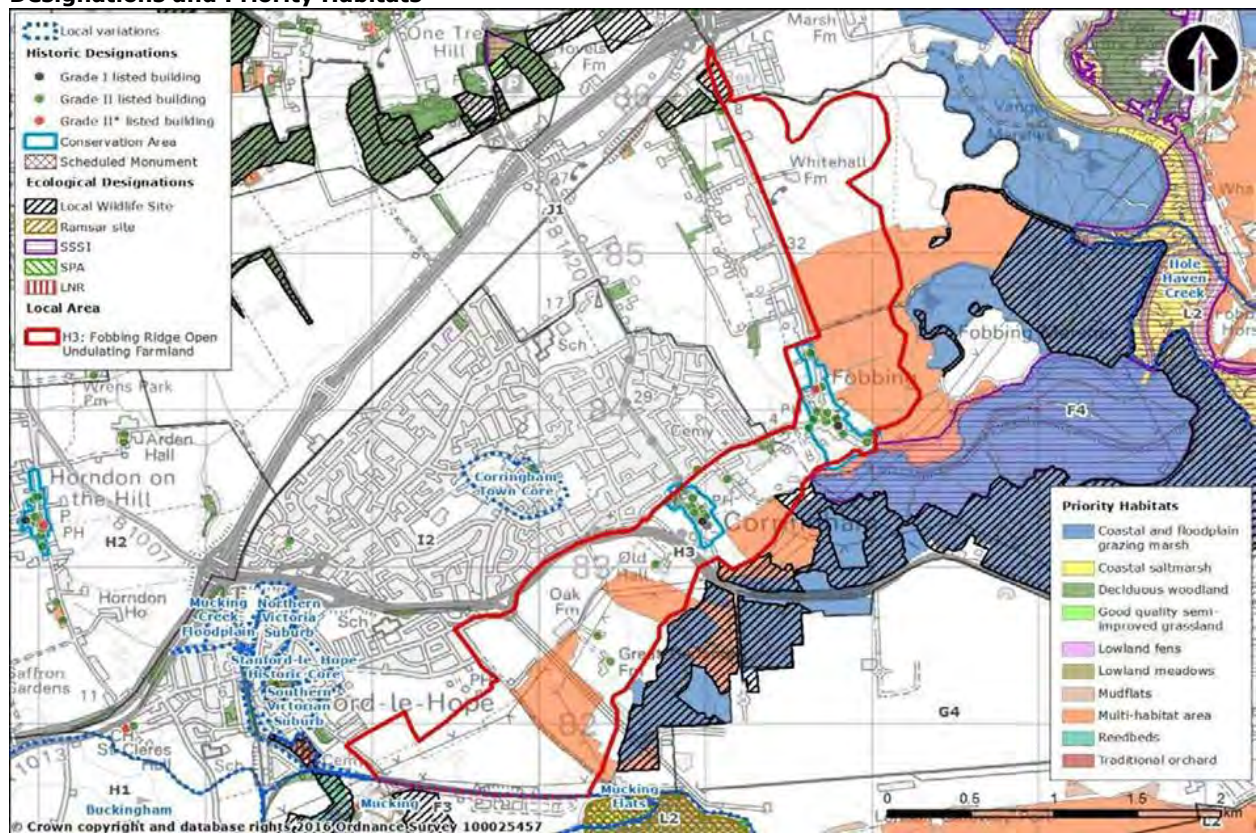
Landscape Character Profile

Landscape Character Type:
H3: Fobbing Ridge
Open Undulating Farmland

Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- H1.19 This area is characterised by gently undulating farmland, located between the settlements of Stanford-le-Hope, Corringham and Fobbing and the Thames marshes. The farmland is made up of predominantly large scale arable fields defined by hedgerows and interspersed with farmsteads and the historic rural village of Fobbing.

Key Characteristics

- Gently undulating 'ridge' of clay, silt, sand and gravel giving rise to good agricultural soils that are actively farmed;
- In the southern and northern areas, large scale arable fields (due to post 1950 boundary loss) bounded by denuded hedgerows and drainage ditches create an open and exposed landscape, crossed by pylons, and with long views south-east across the marshes and Thames beyond.
- The small valley between Fobbing and Corringham contains smaller fields of pasture and thicker hedgerows, providing a scenic rural and green setting to the historic villages of Corringham and Fobbing.
- Fobbing occupies a high point and St Michael's church is a landmark on the skyline; there are notable panoramic views across the Thames valley from Fobbing.
- Areas of woodland and trees provide shelter around farmsteads and villages; small areas of broadleaved deciduous woodland on the edge of Corringham are areas of local nature conservation significance.
- Low-lying fields support areas of lowland wet grassland (a priority habitat).
- Settlement pattern is typically scattered isolated historic halls, farmsteads and historic villages (Corringham and Fobbing).
- Fobbing is a key feature at the end of the ridge and with a past as a thriving port and historic association with the smuggling trade, as well as being one of the main villages involved with the Peasants' Revolt in the 14th century.
- There is a strong local built vernacular, particularly associated with the historic halls and villages, including timber framed pre-17th century buildings, and later buildings in brick (red, yellow stock or grey gault) with lime washed render or weather boarded cladding.
- Historic barns are typically timber framed with thatched or tiled roofs and horizontal weatherboard walls, typically white or black.
- The modern settlement of Corringham, which is located mostly in the adjacent character area, has a suburbanising influence due to the style of houses and presence of leisure and recreational land uses on its edge.
- The area forms a distinct but low ridge and rural backdrop to the marshes whose skyline is punctuated by trees, farm buildings and pylons/powerlines.

Components that Contribute to Character

Landscape Component	Description
Geology	The majority of the bedrock in the area is formed of London Clay, with a small outcrop of clay, silt and sand associated with the Lambeth Group in the south west. This is underlain predominantly by areas of Head comprising clay, silt, sand and gravel encompassing localised areas of sand and gravel river terrace deposits. A small area of silt tidal flat deposits also occurs along the minor valley west of Fobbing.
Topography	The land is low lying and gently slopes from 5m AOD where the area meets the marshes to 30m AOD around Fobbing. This results in the appearance of a ridge when viewed from the lower marshes.
Hydrology	The area drains from west to east with several small streams and ditches forming field boundaries, flowing beyond the area to Mucking Marshes in the south and Fobbing Marshes in the east. These marshes neighbour the River Thames to the south and are classified as Flood Zone 3. A couple of small open water bodies including Cobblers Mede Lake are located adjacent to the urban edge of Corringham.
Soils	Predominantly fine silty and fine loamy over clayey subsoils cover the southern half of the character area near Corringham which supports ALC Grade 2 soils. The northern area around Fobbing is characterised by clayey soils with brown subsoils and some areas of fine loamy and fine silty over clayey soils. This is classified as ALC Grade 3 and the abundance of slowly permeable clayey soils means that whole area is liable to seasonal waterlogging.
Land Use	Arable fields are the most predominant land use in the area, covering a large majority of the area between the A1014 and the railway, as well as much of the area east of Fobbing. However there are occasional pasture fields, as well as leisure and recreational land uses (such as East Thurrock Football Club and Pegasus Country Club) close to the urban area. Two areas of open water are also situated on the urban edge of Corringham.
Land Cover and Biodiversity	An irregular pattern of agricultural fields varying in scale. In the south are large scale arable fields with denuded hedgerows. The area around Corringham Hall and Fobbing is characterised by smaller scale fields of mostly pasture as well as sports pitches on the edge of the urban area. Small areas of woodland and stands of trees are concentrated around properties. The fields to the east of Fobbing are arranged in a more regular pattern defined by hedgerows This area is mostly an open farmed landscape. However, there are a couple of areas of broadleaved deciduous woodland situated on the edge of Corringham. These are considered priority habitats under the JNCC's Biodiversity Action Plan (BAP) habitats and recognised as areas of local nature conservation significance in the LDF. There are also some fields of lowland wet grassland (also a priority habitat) on the easterly and south-easterly slopes and lower lying areas.
Settlement Pattern/ Form	The settlement pattern comprises scattered historic halls, farmsteads and historic villages of Corringham and Fobbing, the latter of which is a key feature at the end of the ridge. The medieval core of Fobbing still forms the basis for much of the village today. The historic beginnings of Corringham including St Mary's Church and a number of dwellings and schools are arranged along residential lanes extending from the modern built-up area.
Building Style	The timber frame buildings of Fobbing and Corringham date back to the medieval era although the exterior of a lot of these have been subject to alterations since the 17th century including plaster and lime washing as well as weatherboard cladding. These changes have covered a lot of historic architectural detail but the use of locally sourced materials and skills unifies the character and historic vernacular. By the 18th century hand-made red bricks came into use as external walling and in the 19th century yellow stock or grey gault bricks were more common. Cement and machine-made bricks were available as a walling material by the late 19th and early 20th century and cement render also started to be used more often in the same period. Industrially manufactured materials like asbestos and concrete tiles also came into used in the 20th century which saw the increase of lower pitched roofs due to their interlocking properties. The typical built style is of individual farmsteads and rural buildings located close to existing rural roads, typically constructed from red brick or white rendered with clay tile roofs and weatherboarding, with weather-boarded barns. Thatch also features, for example in some of the older buildings north of Fobbing. St Mary's Church in

Landscape Component	Description
	Corringham is distinctive in its materiality being formed of ragstone or flint.
Historic Landscape and Time Depth	Much of the area used to comprise a pre-18th century enclosure before farming intensification resulted in post 1950 boundary loss. This saw the creation of intensive agriculture which is prevalent throughout the area today. Fobbing was a relatively large medieval settlement due to the river bringing in a lot of trade into the village. The historic core still makes up a considerable part of Fobbing with only piecemeal development occurring over the last few centuries. More recent regeneration has tried to incorporate this within older properties which create a sense of history. Corringham was also an important medieval settlement on the marshland edge. St Mary's Church was at the centre of the earliest development and dates back to the Saxon period whilst many other features are from the 11th century. The village expanded rapidly around World War II before it merged with Stanford-le-Hope towards the end of the 20th century. The majority of surviving historic features are historic buildings associated with the historic halls, farmsteads and villages of Corringham and Fobbing (and their churches). Many of these are listed buildings or conservation area.
Cultural Associations	Historically, Fobbing was a busy port in the medieval times, utilising the marshland grazing, fishing and trading opportunities provided by the Thames estuary. In 1377 a series of warning beacons were set up on commanding hills along the Thameside River banks including Fobbing and other Thurrock settlements. This warning system came as a result of increasing hostile French vessels raiding riverside villages along the Thames. The Peasants Revolt in 1381 occurred in part at Fobbing and Corringham. It is believed that a number of residents of Fobbing played their part including Thomas Baker who is mentioned as being a leader of the rebellion. A commemorative plaque can be found in the recreation ground in Fobbing to mark the 600th anniversary of the Revolt and the local villagers involved. St Michael's Church in Fobbing is known for its historic association with the smuggling trade, in the days when the church was near the waterfront of Fobbing Harbour. Underneath the church are many tunnels which were used by the smugglers in the fourteenth century. The name Corringham is believed to originate from an amalgamation of a Saxon chieftain named Curra, 'ing' which means followers, and 'ham' which means home.
Scenic Qualities	The ridge landform and rural character of the landscape contributes to the scenic quality of this area. The historic halls and villages are particularly scenic as a result of their strong local built vernacular and leafy settings. However modern 'suburban' development on the edge of Corringham and prominent pylons that cross the area detracts from scenic quality.
Perceptual Qualities	Although this area is located close to the modern day urban area of Corringham to the north and contains prominent pylons, it retains a sense of rurality, particularly from country lanes traversing the landscape and from in and around the village of Fobbing.
Visual Character and Views	There are extensive long distance views to the south and east across Fobbing Marshes and the Thames Estuary from this low lying ridge at the edge of Fobbing and Corringham. This includes views of the Thames Gateway development on the horizon. The view south east from St. Michael's Church is dominated by the adjacent housing in the foreground with mature trees in and around the church yard limiting clear views out. Long distance views can however be achieved across Fobbing Marshes with electricity pylons punctuating the skyline.
Landmarks and Skylines	This area forms a distinct but low ridge skyline and rural backdrop as seen from the marshes. The skyline is characterised by trees and farm buildings with the tower of St Michael's Church in Fobbing forming a distinct landmark. Urbanising elements including pylons and overhead powerlines associated with the largescale development in the south also have an influence on the skyline.
Landscape Function and Green Infrastructure	The area provides a rural backdrop to the marshes and an important rural setting to Corringham and Fobbing which encircles these two historic villages, maintaining their nucleated form and distinct identity. A proposed Strategic Green Link, as set out in Figure 4.8 of the Thurrock Green Infrastructure Plan, also traverses the area linking

Local Scale

Landscape Character Profile

Landscape Character Type:
H3: Fobbing Ridge
Open Undulating Farmland

Landscape Component	Description
	the urban area of Corringham to the north with Mucking Marshes to the south.

Character Evaluation

Landscape Quality/ Condition

- H1.20 Landscape quality (condition) is influenced by the condition of components. Agricultural fields are generally well defined by hedgerows and hedgerow trees, and built development is largely contained by trees. However, main roads dissect the landscape including the construction of new London Gateway access road which interrupts the flow of the fieldscape. Long distance, panoramic views across the Fobbing Marshes contribute to the scenic quality although electricity pylons are prevalent and act as detractors in the landscape.

Past change

- H1.21 The Fobbing Ridge Undulating Farmland has been subject to intensive agricultural practices since the 18th century. This has changed a landscape that was once made up of smaller pre-18th century enclosures into an area of large scale farmland fields – most hedgerow loss occurred post 1950s. The A1014 was also constructed mid-20th century, altering the character of the old road into Corringham.

Key sensitivities and valued attributes

- H1.22 The value of some features is recognised through designations such as Conservation Area and Listed Building designations (focussed around old Corringham and Fobbing). In addition, the following features should be given particular consideration due to their particular local value or vulnerability to change:
- The rural character of the area and its rural settlement pattern that provides a contrast to the more industrialised and urbanised areas.
 - The slightly older smaller and more irregular field enclosures around Corringham that provide a sense of history and reminder of how the landscape would have looked pre 1950s.
 - The historic halls and historic villages of Corringham and Fobbing that provide a sense of history and architectural and architectural/ scenic interest.
 - The unified historic vernacular in the villages comprising timber framed buildings and weatherboarding contribute to the scenic quality.
 - The small valley between Fobbing and Corringham that contains smaller fields of pasture and thicker hedgerows and provides a scenic rural and green setting to the historic villages of Corringham and Fobbing.
 - Hedgerows and hedgerow trees together with areas of deciduous woodland that provide important habitat linkages and provide texture to the landscape.
 - The church at Fobbing which provides a landmark on the skyline (the church in Corringham is less prominent but forms a local landmark).
 - The panoramic views across the Thames estuary from Fobbing.
 - The fields of lowland wet grassland which is a priority habitat and provides link to the marshes.
 - The connections of Fobbing as a port with links to the smuggling trade which provides historic and cultural interest.

Vision

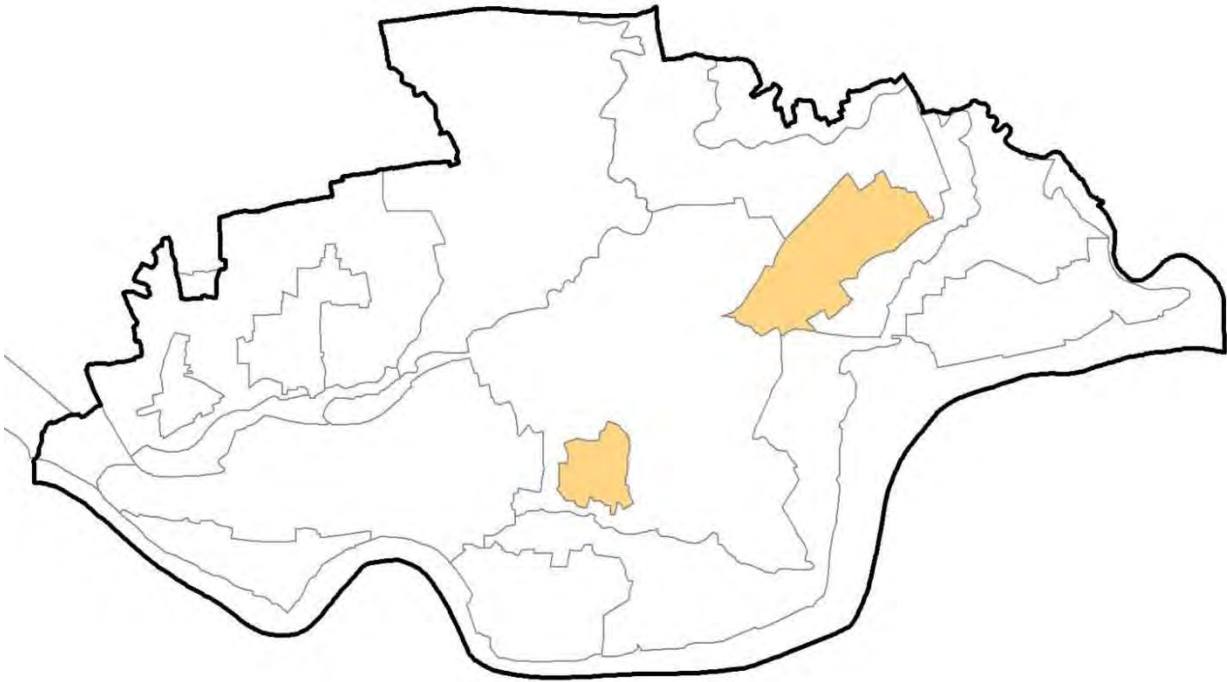
The vision for this character area is: a well-managed and actively farmed landscape with a rural settlement pattern of historic halls, farmsteads and historic villages displaying local vernacular architecture, an intact and well-managed network of hedgerows and woodlands, and lowland grassland habitats that link to the adjacent marshes.

Opportunities and Guidance

- Conserve the rural character of the area and its rural settlement pattern that provides a contrast to the more industrialised and urbanised areas.
- Strengthen the hedgerow and woodland network and use planting to soften the settlement edge of Corringham and delineate the urban from the rural areas.
- Conserve the older smaller and more irregular field enclosures around Corringham that provide a sense of history and reminder of how the landscape would have looked pre 1950s
- Conserve and enhance the character of historic villages, ensuring that any new development fits with the local vernacular and respects the setting of Listed Buildings. Use 'gateways' to signal arrival into the villages and to distinguish the villages from the larger urban areas that adjoin them.
- Preserve the historic halls and buildings and ensure that any new development respects the local vernacular and has regard for local styles and materials.
- Conserve the intimate and lush character of the small valley between Fobbing and Corringham and ensure the smaller fields of pasture and thicker hedgerows are not lost.
- Enhance pedestrian connections between Corringham and Fobbing with the adjacent marshes.
- Ensure the church at Fobbing continues to form a prominent landmark on the skyline – ensure development does not detract from this.
- Consider providing additional opportunities to appreciate the views across the Thames Estuary from this ridge – providing opportunities to stop and appreciate the view.
- viewing and (the church in Corringham is less prominent but forms a local landmark
- Aim to manage fields for their lowland wet grassland habitats and extend these where possible, linking to the marshes.

Consider providing interpretation facilities to encourage interest in the historic and cultural aspects of the area – including Fobbing's historic use as a port, links to the smuggling trade, the role of the ridge in the 14th century warning beacons, and the role of both Corringham and Fobbing in the Peasants Revolt in 1381.

LCT I: Towns on Open Undulating Farmland



- I1.1 This character type includes the urban areas that occur on the 'Open Undulating Farmland' character type which is defined by the gently undulating area of productive sandy brown soils lying between the marshes to the south and east, the Mar Dyke river catchment to the west and the Langdon Hills to the north.
- I1.2 There are two character areas associated with the 'Towns on Farmland' character type:
- **I1 Chadwell St Mary**
 - **I2 Stanford-le-Hope and Corringham**

Local variations

Local Area

I1: Chadwell St Mary

Chadwell St Mary

Chadwell Historic Core

Chadwell by

Sandy Lane Pit (dis) Commercial Areas

High Lane

Linford Road

Marshfoot Road

Chadwell College

Chadwell Place

Chadwell Ridge

Hob Hill

Acad

Big

West

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I1.3 Chadwell St Mary is located at the south-western edge of the 'Open Undulating Farmland' local character type, separated from the large conurbation of Grays (to the west) by a strip of land within **H1 East & West Tilbury Open Undulating Farmland**. It lies to the north of the Tilbury Marshes and the River Thames Corridor. The boundaries of the area follow the existing settlement edge to the north and east (including open space that is associated with the urban area rather than the surrounding rural farmland, but excluding the residential areas associated with the smaller settlement of Orsett Heath to the north). To the west the area follows the built- up edge.

I1.4 The southern boundary of Chadwell St Mary Character Area follows the top of the ridgeline of the Chadwell Scarp (see the adjacent **H1 East & West Tilbury Open Undulating Farmland** character area). This area to the south of Chadwell has been subject to significant disturbance by sand and gravel pits and sugar industry units west of Sandy Lane and therefore has a transitional character between the urban area and adjacent Undulating Farmland area.

Photos



The tower of the Church of St Mary is a prominent feature and important historic landmark which sits on top of the Chadwell Ridge.



Development in Chadwell St Mary appearing on the skyline, looking north from Biggin Lane, including the church tower on the right of the picture and houses on Lea Road and Thames Drive.



The elevated ridgeline situation enables panoramic views to the south such as here at Thames Drive. Views reach across the marshes to the River Thames, the docks, landmarks such as QEII bridge and across to Gravesend and the North Downs beyond and contribute to a distinctive sense of place.

The map displays the Chadwell St Mary area with various flood zones and local features. The legend indicates:

- Waterbody (Blue)
- Flood Zone 2 (Light Green)
- Flood Zone 3 (Dark Green)
- River network (Blue line)
- Local variations (Dotted blue line)
- Local Area (Red outline)
- I1: Chadwell St Mary (Red outline)

The map shows the River network flowing through the area, with Flood Zone 2 and Flood Zone 3 areas. The Local Area is outlined in red, and the Local variations are indicated by dotted blue lines. The map also shows the Chadwell St Mary area, including the Chadwell Historic Core and the Chadwell Bypass. The map includes a scale bar and a north arrow.

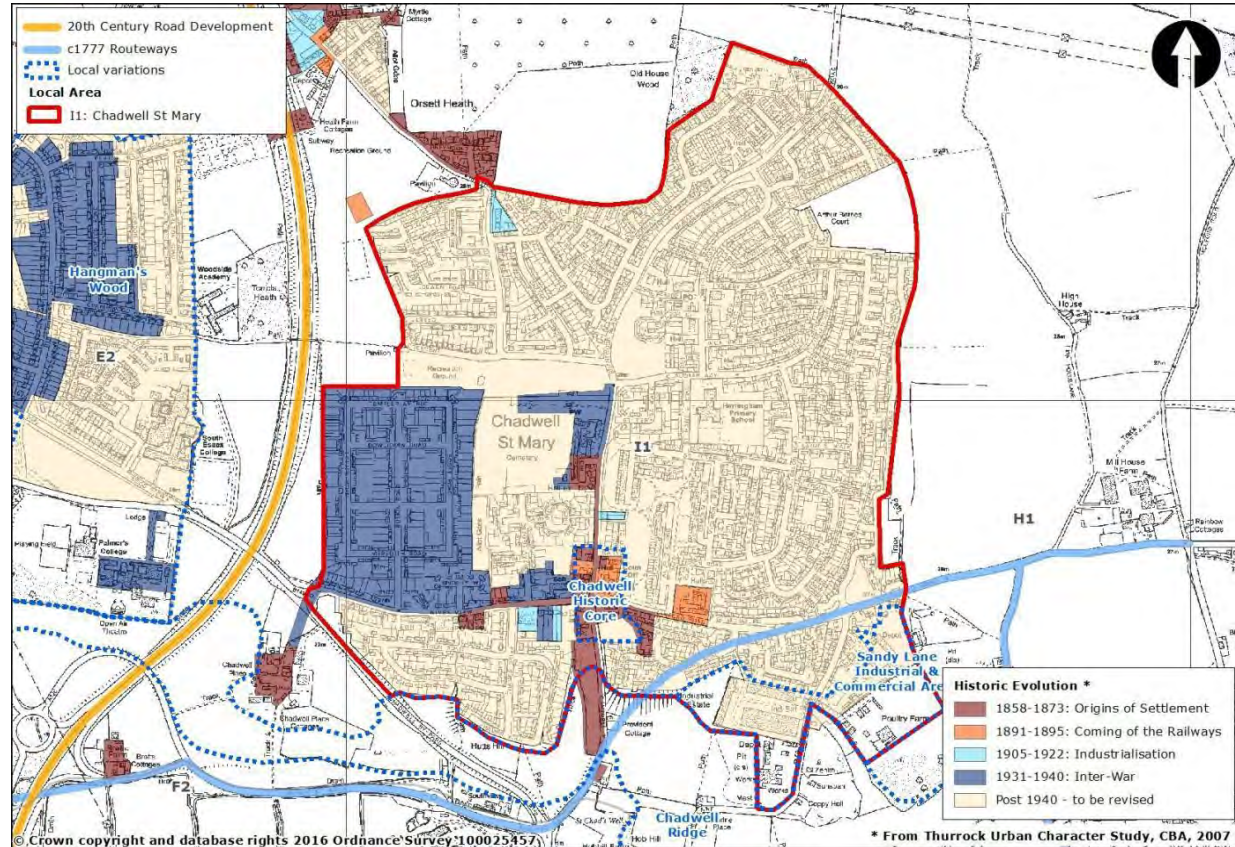
Elevation (Metres AOD)

- High : 118.6
- Low : -9.3

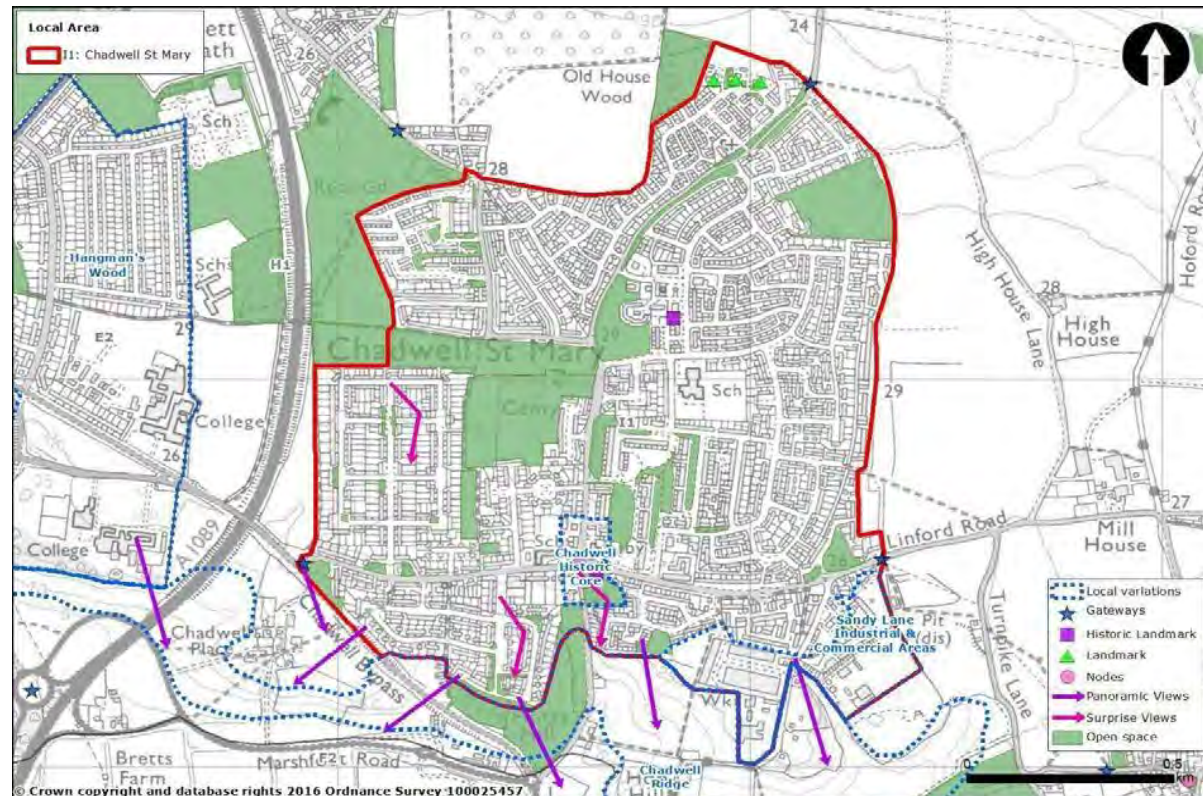
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Historic Evolution



Townscape Experience



Character Description

Overview

- I1.5 Chadwell St Mary is a post-war settlement which expanded from the medieval village of Chadwell. The historic core of Chadwell St Mary lies at its southern end, around the crossroads of Linford Road/ Chadwell Hill and a few listed buildings survive from the historic roadside settlement. The elevated situation of Chadwell at the top of a low ridge (30m AOD) delivers long views to the south over the Tilbury Marshes and River Thames from intermittent vantage points in the south of the town, creating a strong relationship with the adjacent landscape.

Key Characteristics

- A compact settlement sitting on a low ridge, with a noticeable scarp slope defining the southern edge of the town.
- Built form is characterised by 20th century residential development as a result of considerable post-war expansion, but the historic core at the crossroads and the Church of St Mary provides a strong focus, the character of which is enhanced by historic buildings of red brick and thatched roofs.
- The settlement has a semi-rural setting formed by undulating farmland at the settlement edges and areas of green space within the town interspersed with the built development.
- Open spaces form a notable green wedge, stretching into the centre of the settlement from the west.
- The Grade I listed Church of St Mary forms an important landmark feature at the crossroads in the historic core of Chadwell St Mary.
- Panoramic and long distance views of the neighbouring marshes, docks and Thames estuary to the south from the south of the area, as a result of its elevated landform relative to the surrounding landscape.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock is comprised predominantly of sands (Thanet Formation) with an area of sand, silt and clay (Lambeth Group) in the south east of the area. The surface geology consists of river terrace deposits of sand and gravel, largely as a result of the historic migration of the River Thames. The Thanet Sand (bedrock deposits) and river terrace deposits have resulted in areas of former sand and gravel extraction in the south east and south west of the area.
Topography	Chadwell St Mary sits upon a low ridgeline running east-west (up to 30m AOD). The steep slope to the south of Chadwell defines the southern edge of the settlement and enables dramatic views southwards across Tilbury, towards the floodplain of the River Thames.
Hydrology	There are no notable watercourses within the area.
Land Use	The land use is predominantly post-war residential, but also a small 20th century industrial estate which spans both sides of Sandy Lane in the south east of the area (Coward Trading Estate and Bennett's Industrial estate) on land which formerly lay adjacent to mineral extraction sites. Many areas of green and open space (including recreation grounds in the west of the area) and front/ back gardens provide valued open space. There is also a school and allotments.
Land Cover and Biodiversity	There are relatively large areas of green open space which spread through the centre of the town – most are recreation grounds or amenity grassland with some planting and trees but generally with limited biodiversity value. More naturalistic spaces including the cemetery provide some natural interest and biodiversity value. There are frequent green spaces alongside roads and around buildings, providing the sense of a more 'suburban' character than the more urban settlements of Grays and Thurrock to the west.
Settlement Form	Chadwell St Mary is a compact settlement situated on top of a low lying ridge. The settlement form developed as a result of its situation on the scarp overlooking the adjacent marshes, in common with the nearby settlements of West Tilbury and East Tilbury (within LCA H1 East & West Tilbury Open Undulating Farmland), and the settlement edges set back from the scarp edge are therefore important to its character. The open landscape to the west of Chadwell St Mary (between Chadwell St Mary and Little Thurrock/ Grays) is important in creating a sense of separation between Chadwell St Mary and the larger Grays conurbation. The landscape setting to the town, both at its edges and the wedges of green space that protrude into the centre of the settlement are important in creating a sense of identity which is distinct from the larger towns (such as Grays) further west.
Built Form and Style	Residential buildings are generally similar in form, appearance, layout and materials. Houses are largely post-war detached and semi-detached in predominantly rectilinear street patterns, crescents and cul-de-sacs. There is an intact example of a pre-World War II planned residential settlement at Ruskin Road. Other buildings include three 15 storey tower blocks in the north eastern corner of the area at Godman Road which are prominent landmarks at odds with the character of the rest of the town; blocks of flats of up to three storeys; and flats above shops along River View. Traditional buildings contribute positively, including Chadwell House, The Cross Keys PH, Sleeper's Farm at the top of Chadwell Hill and the Spar shop front. The industrial estate contains industrial and commercial units at a larger scale which are poorly sited on the top of the Chadwell Ridge, creating a visual detractor. Materials are generally mass-produced materials and utilitarian streetscape. The local vernacular includes red brick and red tile roofs (e.g. Chadwell House), weatherboarding, white washed render (e.g. the Cross Keys PH) and thatched roofs.
Sense of Place	Overall there is a weak sense of place as a result of standardised and utilitarian materials. The central crossroads has a greater sense of place and can be read as an historic village, and the area in the south of the village where views open up to the south.
Connectivity	There is poor pedestrian connectivity to the west and Grays - Dock Approach Road is currently a major barrier to movement.

Landscape Component	Description
Historic Landscape and Time Depth	Artefacts found in the town show that the area was inhabited in the Neolithic, Bronze Age and Iron Age. The historic core of the settlement expanded from the medieval village of Chadwell which centred on the crossroads of Linford Road and Chadwell Road, and the parish church of St Mary. A few listed buildings survive within this historic core although the settlement grew rapidly in the post-war period, and most of the development within the town dates from this time. The historic and listed buildings (such as Sleepers Farmhouse on the corner of Chadwell Hill/ River View) are important in maintaining the historic character of the town.
Cultural Associations	World javelin champion, Fatima Whitbread, grew up in Chadwell St Mary after being adopted by the Whitbread family when she was thirteen.
Urban Structure	There are four gateways (i.e. main points with a strong sense of entrance and arrival to the settlement) where roads meet the edges of the settlement. The major gateway is in the south-west of Chadwell St Mary, at the roundabout junction with River View and Chadwell By-Pass. The open aspect from the top of the ridgeline gives long distance panoramic views across the Thames Valley, contributing to an impressive gateway. Other gateways include at the north of the area, with the prominent tower blocks marking the start of the settlement; and in the south east on Linford Road, which is poorly defined. The crossroads of River View/ Linford Road and Brentwood Road/ Chadwell Hill is the oldest part of Chadwell St Mary, centred on the parish church of St Mary – this area is referred to as the 'historic core' area. It is a key node, with four buildings at each corner of the quadrant which create interest. Other nodes are located at the local shopping parades at River View and Defoe Parade.
Scenic Qualities	The historic core and views across the Thames floodplain from the south of the town to the south contribute to the scenic qualities of the settlement. Other aspects are not remarkable. Green spaces are generally rather 'flat' with some planting and trees but also large areas of mown grass with limited visual interest. The character of views is often monotonous as the amenity grassland and standardised building style lacks diversity and therefore reduces the sense of legibility of the area.
Perceptual Qualities	A suburban town, noticeably less 'urban' than the nearby towns of Grays and West Thurrock to the west, as a result of frequent areas of green space – including public and private spaces – and the presence of local centres. Front gardens and planting around the edges of buildings soften built facades.
Visual Character and Views	Views are available from a few locations within the town such as at the main crossroads, the roundabout in the south west of the area between River View and Wood View, and roads such as Thames View on the southern edge of the village. Long distance views from the southern part of the town are possible, which extend over the Tilbury marshes, to the River Thames, the docks, landmarks such as QEII bridge and across to Gravesend and the North Downs beyond. These views contribute to a distinctive sense of place.
Landmarks and Skylines	The tower of the Church of St Mary is a prominent feature on the ridgeline and important historic landmark, and the Sleeper's Farmhouse opposite is also a distinctive landmark building at the crossroads. The tower blocks at the north of the town are also distinctive landmark features.

Local Variations in Character

I1.6 Localised areas with distinct character have been identified as follows:

Chadwell Historic Core

- I1.7 The Chadwell Historic Core forms the main node within the town today and the original crossroads road form and historic buildings give it a recognisable historic core character distinct from the remainder of the settlement. The historic village was linear in form, aligned along the main north- south road of Chadwell Hill, and the crossroads of Linford Road and Chadwell Road.

Sandy Lane Industrial and Commercial Area

- I1.8 The historic Sandy Lane Industrial and Commercial Area is notable distinct due to its industrial and commercial land uses that set it apart from the remainder of Chadwell St Mary.

Character Evaluation

Landscape Quality/ Condition

- I1.9 Overall, the quality and condition of the townscape in Chadwell St Mary is relatively poor and in need of management. Gateways to the north and south-east are poorly defined. The boundary between the settlement edge and surrounding countryside is often harsh, particularly to the north. The range of streetscape materials, signage and street clutter detracts from the townscape quality; homogenous styles and utilitarian materials do not contribute to local character. There is also poor definition of areas – such as local centres – which means that legibility is often poor.
- I1.10 Poor quality and decaying building facades – particularly in the local shopping parades - create a perception of poor maintenance and neglect. Other residential buildings are standardised in design, limiting the townscape and visual interest of the area and not providing a strong sense of place. Green spaces are managed primarily as open amenity grassland – the natural/ visual quality of these spaces could be improved.
- I1.11 Industrial buildings in the south eastern corner and west of Sandy Lane are visually prominent on the ridgeline in the south east of the area and are poor quality. The land has been greatly disturbed by past sand and gravel workings.

Past change

- I1.12 Past housing development has resulted in the rapid expansion of Chadwell St Mary from a rural village into a predominantly post-war residential settlement. Visual and perceptual links to the medieval village have almost entirely disappeared, and there has been a steady decline in the condition of the historic core as well as other parts of the settlement.

Key sensitivities and valued attributes

- I1.13 Listed building status gives some protection to the four oldest buildings. These historic buildings, and the other features listed below, should be given particular consideration due to their particular local value or vulnerability to change:
- The historic core around the Parish Church of St Mary and its historic and traditional buildings.
 - The landmark Grade I listed Church of St Mary.
 - The semi-rural landscape setting to the town at its edges as well as the wedges of green space that protrude into the centre of the settlement are important in creating a sense of identity which is distinct from the larger towns (such as Grays) further west.
 - The panoramic and long distance views across the neighbouring marshes, docks and Thames estuary to the south.
 - The open landscape to the west of Chadwell St Mary that creates a sense of separation between the Chadwell St Mary and the larger Grays conurbation and the A1089.

- The green landscape buffer at the southern edge of the settlement which sets development back from the edge of the Chadwell Scarp.

Vision

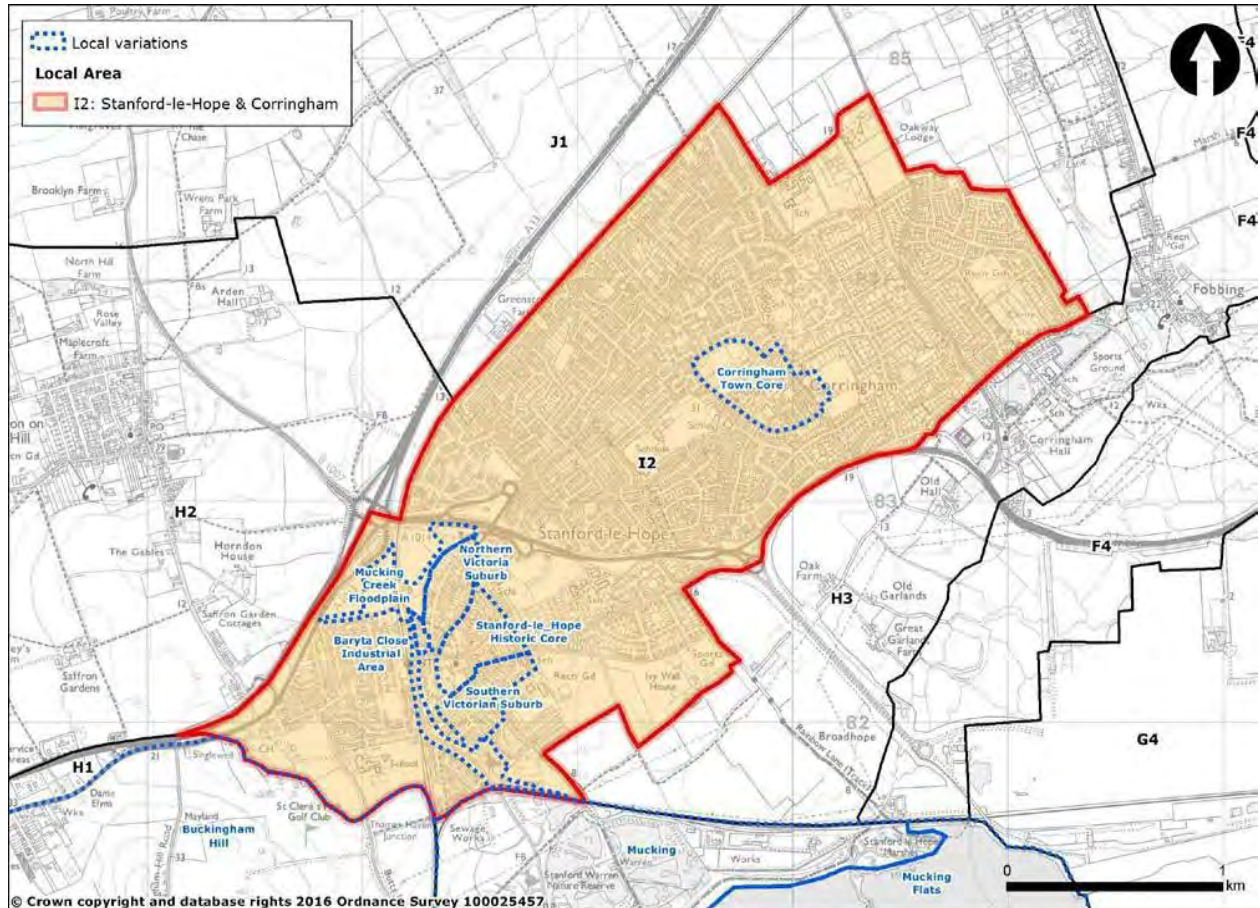
Opportunities and Guidance

I1.14 Opportunities and guidance relevant to this area are:

- Soften harsh settlement edges, particularly the industrial/ agricultural buildings in the south east of the area and residential edges to the north and east.
- Ensure no further encroachment of built development southwards down the scarp, and consider future removal of modern buildings on the Chadwell Ridge. Keep any new development well back from the ridge top skyline.
- Preserve the remaining historic buildings and restore where necessary to improve their condition.
- Ensure any new built development is in scale with the village settlement (typically low rise but variety in building heights would be appropriate to enhance character of local areas within the town) and draws on local vernacular and materials in its design.
- Maintain St Mary's Church as a landmark on the scarp top – ensure new development does not compete with this for prominence.
- Maintain an open space between Chadwell St Mary and Little Thurrock/ Grays to retain a sense of separation between the Chadwell St Mary and the larger Grays conurbation. Aim to enhance the rural character and biodiversity of this area.
- Promote new pedestrian links such as to the west and Grays (Dock Approach Road is currently a major barrier to movement), as well as improving pedestrian links to Brentwood Road Park.
- Strengthen the rural setting of the settlement and strengthen gateways on road entrances to the settlement, to create a sense of place and feeling of entering a village. Soften the currently harsh urban edges with planting and features typical of the surrounding rural landscape.
- Improve coherency and quality of the public realm through new planting/ appropriate landscape management regimes and use of consistent and locally distinctive materials, furniture and signage.
- Enhance existing nodes (the local shopping parades at River View and Defoe Parade) or consider the creation of new local nodes to provide centres of activity and reinvigorate the outer parts of the village while improving legibility and sense of place. Improve the legibility and variety of the town by encouraging defined character zones with higher density development/ taller buildings, whilst ensuring that new development incorporates appropriate landscaping and does not block views south to the marshes.
- Improve the biodiversity of open spaces, encouraging land cover that would be typical of the underlying freely draining slightly acid loamy soils and geology on this ridge top. Aim for multifunctional open spaces, diversifying the range of uses and management regimes.

- Maintain the existing panoramic views from the south of the settlement across the Thames
- Valley and the visual connection between the high street and Thames, and aim to create more opportunities to enjoy these views, including signage and interpretation boards.
- Maintain a gap between Orsett Heath and Chadwell St Mary so that they retain distinct identities.

LCA I2 Stanford le Hope and Corringham



Location and Boundaries

- 11.15 The adjoining settlements of Stanford le Hope and Corringham have merged into one urban area. This urban area and its associated recreation grounds and allotments on the edges form the character area. The northern boundary of the area follows the railway line along much of its length which forms a straight and well defined edge. Since the urban area lies within the Undulating Open Farmland landscape type, it adjoins H1 East & West Tilbury Open Undulating Farmland to the south-west, H2 Orsett & Horndon-on-the-Hill Open Undulating Farmland to the north-west, and H3 Fobbing Ridge Open Undulating Farmland (which includes the Corringham Conservation Area) to the south east. The northern edge adjoins J1 Langdon Lower Hill Slopes and a small part of the southern edge of Stanford-le-hope adjoins F3 Mucking Marshes.

Photos



Occasional areas of parkland and recreation grounds punctuate the residential development.

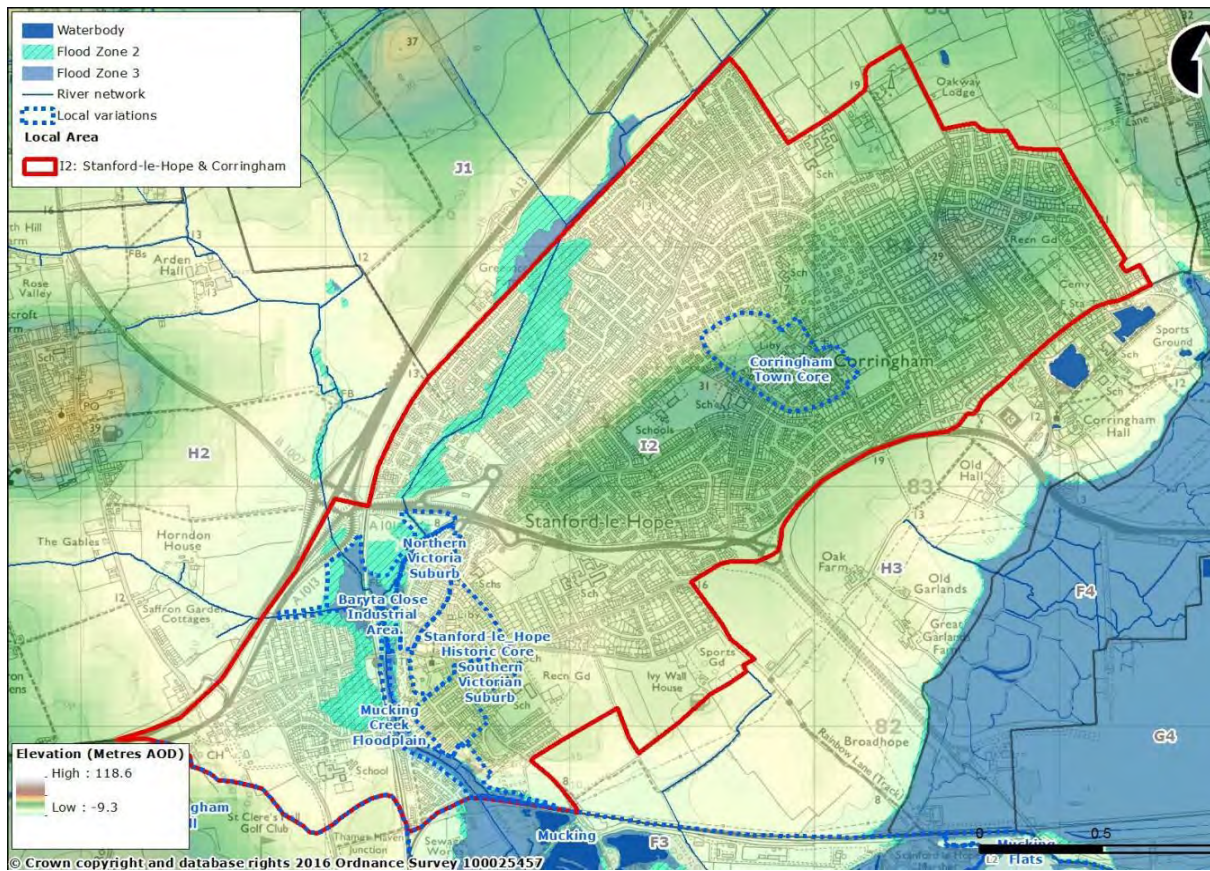


Long distance views can be achieved from the elevated ridge position within the settlement towards Langdon Hills in the north.

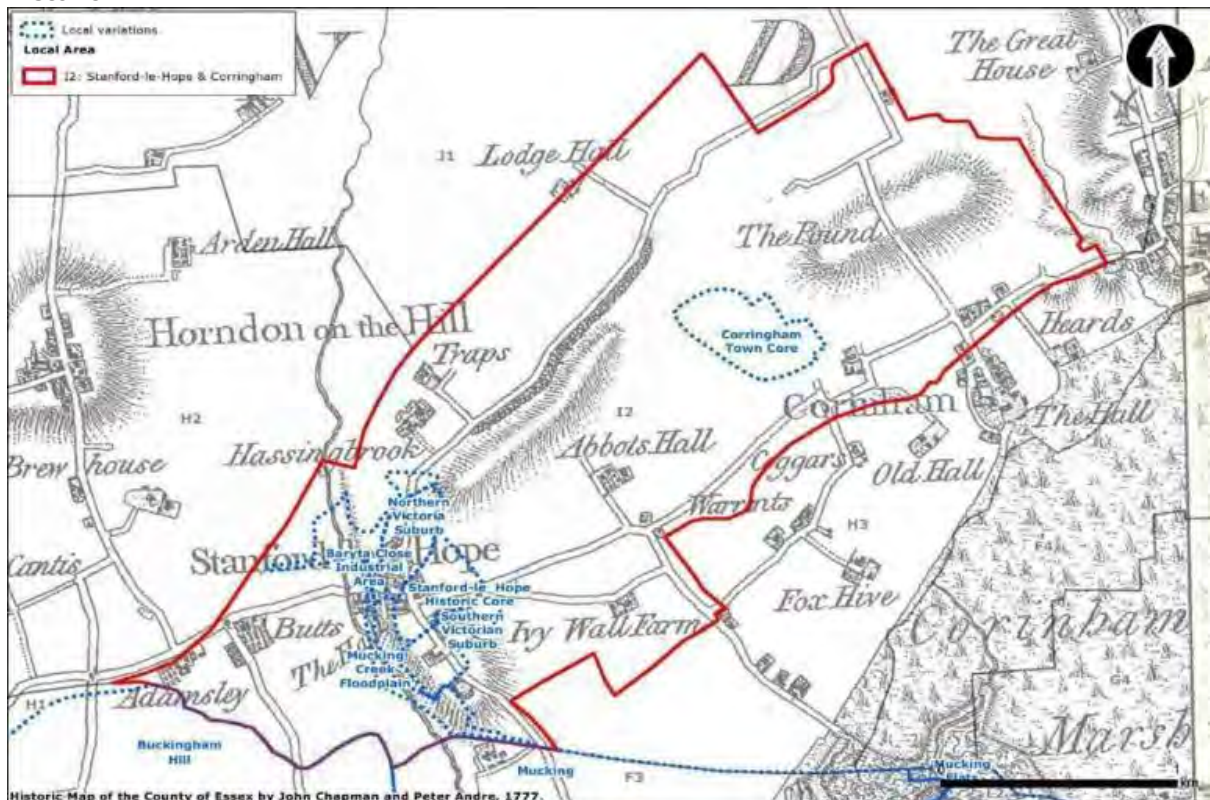


Predominantly rectilinear streets, crescents and cul-de-sacs of post-war housing with limited street trees.

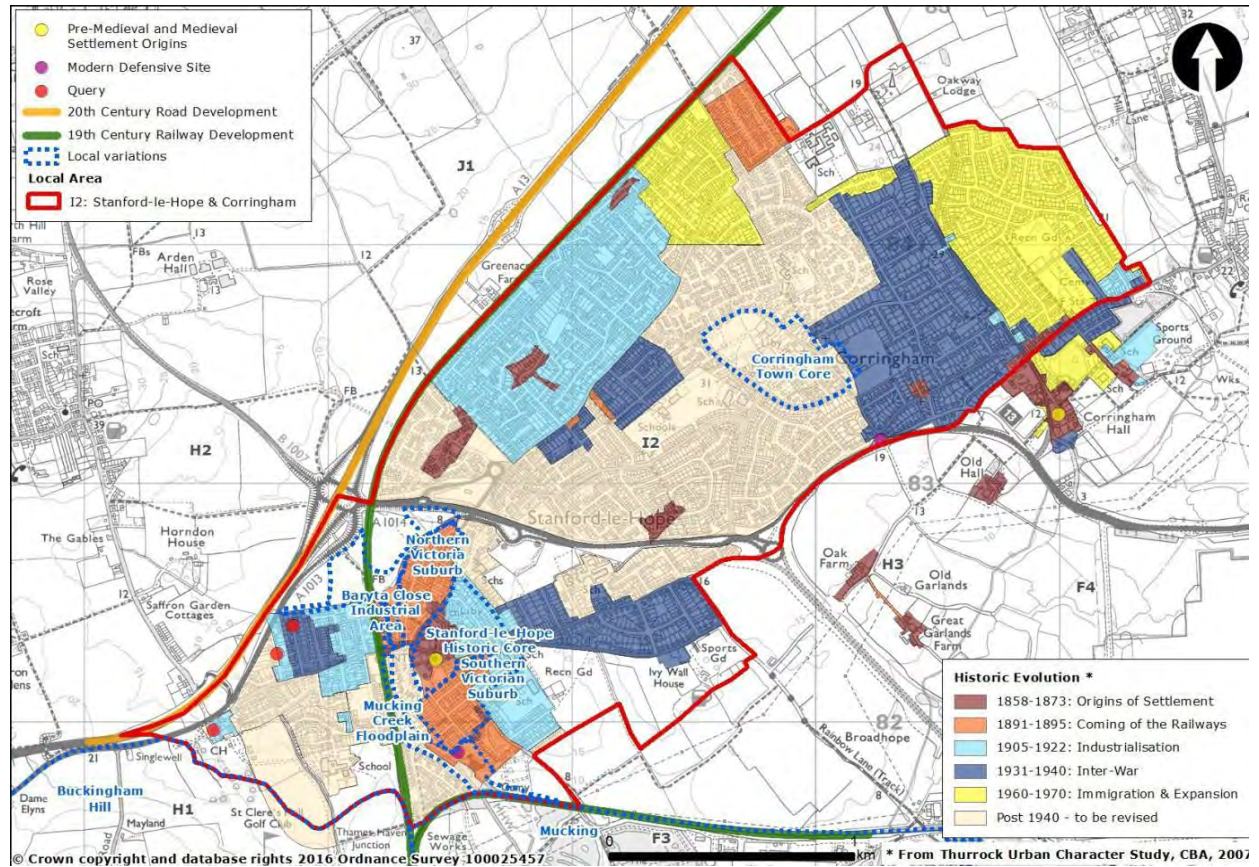
Topography and Drainage



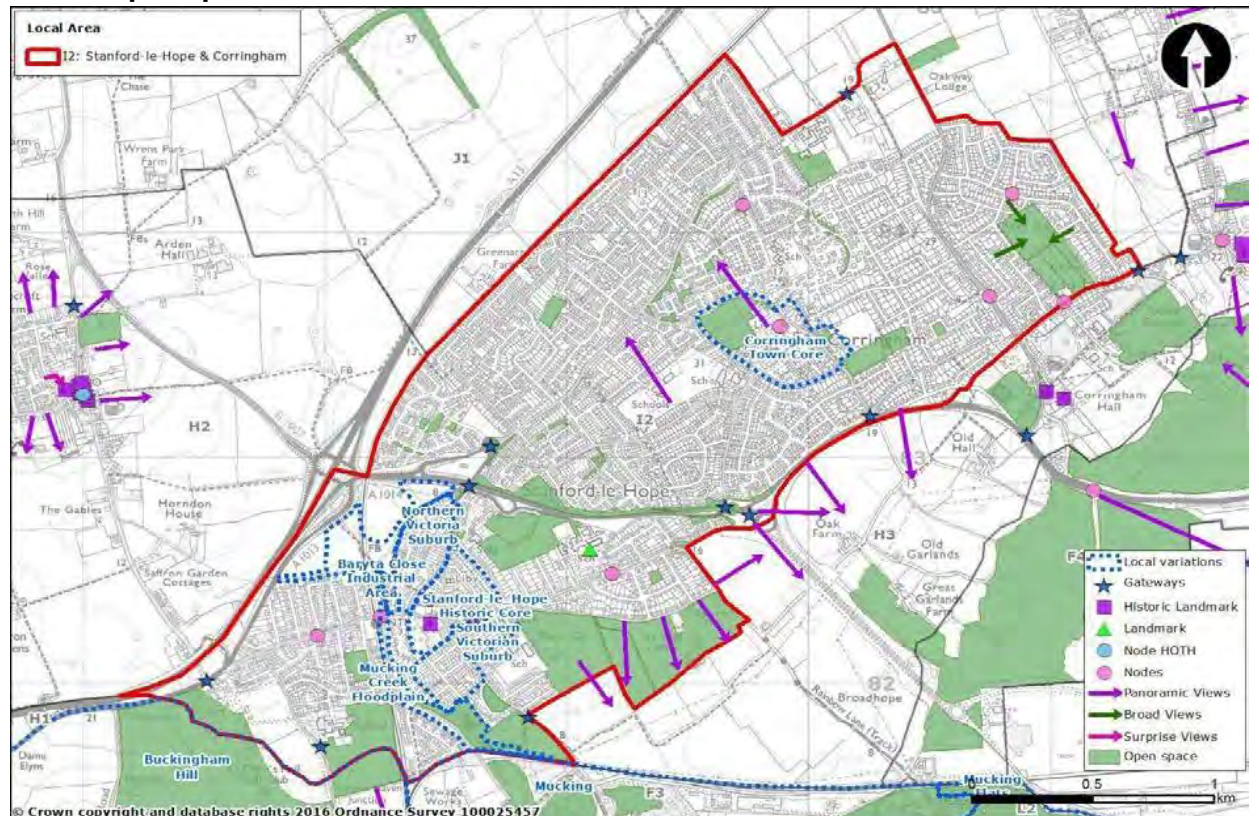
Historic



Historic Evolution



Townscape Experience



Character Description

Overview

- I1.16 Stanford-le-Hope and Corringham together form a large urban area. Stanford-le-Hope expanded from a Saxon settlement lying just above the floodplain of the Mucking River, and the historic core is still discernible in the form of the church and the 'Inn on the Green'. Corringham is a largely inter-war and post-war settlement that has expanded from the historic core of Corringham (which lies in the adjacent rural area) and incorporates some occasional historic elements such as listed Halls which would have once sat in rural settings and have been subsumed within the urban fabric.

Key Characteristics

- Gently undulating landform underlain by sands, silts and clays and rising to just over 30m AOD in Corringham.
- Notable valley to the west of Stanford le Hope containing the course of Mucking creek and an alluvial floodplain with deciduous woodland, swamp and wet woodland – particularly at Grove house Wood and Marsh Local Nature Reserve.
- Historic core of Stanford-le-Hope (which dates back to Saxon times) is located close to Mucking creek, discernible in the form of the historic church, triangular green and the 'Inn on the Green' – the church tower provides a local landmark and focal point for the settlement (which is also a keynode).
- Stanford-le-Hope includes some remnants of Victorian streets around the historic core comprising a mixture of smaller terraced houses and larger villa-style houses in red brick often with bay windows, tile detailing, and brickwork patterns.
- The remainder of the area, and particularly in Corringham, is largely inter-war and post-war residential development comprising rectilinear streets, crescents and cul-de-sacs of post-war semi-detached and detached houses.
- Materials tend to be pre-fabricated and mass-produced and streets have limited street trees and on-street parking.
- The residential areas are punctuated by areas of green open amenity spaces, schools and recreation grounds.
- Corringham town centre, located on the ridge top, is a 1960's area incorporating retail, a leisure centre, some residential development in three storey blocks with extensive views to the north.
- Corringham incorporates some occasional historic elements such as listed Halls which would have once sat in rural settings and have been subsumed within the urban fabric (e.g. Hassenbrook Hall).
- The clock tower on Hassenbrook Academy forms a local landmark.
- The ridge top position allows some long distance views, for example northwards to the Langdon Hills from central Corringham (particularly when descending northwards), and from the southern edges of both settlements over the Thames Estuary (from Billett Lane on the south edge of Stanford-le-Hope and from the A1014 from the south edge of Corringham).

Components that Contribute to Character

Landscape Component	Description
Geology	The underlying bedrock is characterised by sand, silt and clay with the Lambeth Group located in the west and the London Clay Formation in the central and eastern (higher) area. The area is predominantly overlain by Head clay, silt, sand and gravels with Alluvium clay, silt, sand and gravels around Mucking Creek. There is also a Lynch Hill Gravel Member outcrop in the centre comprising sand and gravel.
Topography	The landform in the area is gently undulating and includes the valley of Mucking Creek, rising to a ridge of 31m AOD at Corringham.
Hydrology	Mucking Creek flows through Stanford-le-Hope. It arises in the hills to the north and discharges into Mucking Flats to the south. This results in localised areas of Flood Risk Zone 3 in the river floodplain.
Land Use	The land cover within the green spaces inset within the development mostly comprises amenity grassland with limited tree planting. More naturalistic habitats occur along Mucking Creek including deciduous woodland (a priority habitat), scrubby woodland and pasture (adjacent to the A1014) and swamp and wet woodland at Grove house Wood and Marsh Local Nature Reserve.
Land Cover and Biodiversity	Corringham and Stanford-le-Hope historically had different origins (both rural villages), but now form one continuous urban area. The settlement form of Stanford-le-Hope is still evident with the historic core around the Church and Victorian areas around that. The built form is punctuated by amenity greenspaces. Proposed Strategic Green Links (as identified within the Green Infrastructure Plan for Thurrock 2006-2011) cross the area, connecting Mucking Flats with the Langdon Hills. Rural fields of the Undulating Open Farmland landscape type form the immediate setting to area while the Langdon Hills form an attractive rural backdrop to the north.
Settlement Form	Stanford-le-Hope includes a remnant historic core and some remnants of Victorian streets around the historic core comprising a mixture of smaller terraced houses and larger villa-style houses in red brick often with bay windows, tile detailing, and brickwork patterns. The core of Corringham lies outside the modern day settlement (in LCA H3 Fobbing Ridge Open Undulating Farmland). The remainder of the area is largely inter-war and post-war residential development comprising rectilinear streets, crescents and cul-de-sacs of post-war semi-detached and detached houses. Pre-fabricated, mass produced materials are prevalent throughout.
Built Form and Style	The use of pre-fabricated, mass produced materials and lack of reference to local styles and materials throughout the majority of the area lead to a weak sense of place. The exception is in Stanford-le-Hope's historic core and around Hassenbrook Hall. Views out to the rural landscape setting, and particularly the Langdon Hills to the north provide some sense of place.
Sense of Place	There are limited public footpaths in and around the area and so the area has poor pedestrian connections with the adjacent landscape. This is compounded by the presence of the railway line and major roads on the edges of the settlement. The A1014 provides a physical barrier between Stanford-le-Hope and Corringham.
Connectivity	The underlying bedrock is characterised by sand, silt and clay with the Lambeth Group located in the west and the London Clay Formation in the central and eastern (higher) area. The area is predominantly overlain by Head clay, silt, sand and gravels with Alluvium clay, silt, sand and gravels around Mucking Creek. There is also a Lynch Hill Gravel Member outcrop in the centre comprising sand and gravel.
Historic Landscape and Time Depth	The first record of Stanford-le-Hope was from entries into the Domesday Book dating back to 1086. It started out as a church/hall complex adjacent to a triangular green and remained a small village with a tiny population up until pre-World War II when the gas industry attracted greater numbers and further business. Development almost slowed to a halt in the aftermath of the war before it recommenced a decade or so later. The historic settlement core can still be appreciated around the church and Inn on the Green. Corringham began as an important medieval settlement concentrated around St Mary's Church (located just outside the character area in the south). It was not until pre-World War II times when the first major development was constructed to the north, in a landscape of ancient small, irregular field systems with a highly dispersed settlement pattern including some significant medieval farms. Inter-war and post-war development followed and towards the end of the 20th century infill

Landscape Component	Description
	development lead to the loss of the gap between Corringham and Stanford-le-Hope.
Cultural Associations	The name Stanford is derived from the Saxon meaning for 'stone ford'. Coal gas was produced in the town at Butts Lane by Stanford-le-Hope Gas Company which was then bought out by Grays and Tilbury Gas Company in the early 20th century. Production of gas ceased at Stanford when it was absorbed into the London Gas Light and Coke Company around 1930. Joseph Conrad, the well-regarded novelist, moved to Victoria Road in Stanford-le-Hope in 1896 with his wife before later moving to Billet Lane. It was in Stanford-le-Hope where Conrad wrote many of his works including '<i>Karain</i>', '<i>The Return</i>' and '<i>Youth</i>'.
Urban Structure	St Margaret's Church provides a strong historic landmark and is the focus to the large nodal point in the centre of Stanford-le-Hope where the main roads converge. The clock tower on Hassenbrook Academy is another local landmark. Corringham does not have any notable landmarks. The 1960s town centre forms a node and there are some smaller nodes marked by local parades of shops in the surrounding residential areas. The gateways into Corringham and Stanford-le-Hope tend to be unwelcoming and dominated by large roundabouts or road junctions with little sense of arrival.
Scenic Qualities	The prevalence of mass-produced building materials and limited number of street trees within the streetscape detracts from scenic quality. However, the historic core of Stanford-le-Hope, the remnant historic features (such as Hassenbrook Hall), the Mucking Creek corridor in Stanford-le-Hope, and well preserved local centres such as the Rainbow Stores on Corringham Road provide visual interest and contribute to the scenic quality of the townscape. The setting of the Langdon Hills to the north and Thames estuary to the south provide some scenic quality.
Perceptual Qualities	The main roads traversing the residential areas create a sense of busyness in the immediate vicinity with quieter areas located within cul-de-sacs off residential roads and crescents.
Visual Character and Views	The ridge top position allows some long distance views, for example north wards to the Langdon Hills from central Corringham (particularly when descending northwards), and from the southern edges of both settlements over the Thames Estuary (from Billett Lane on the south edge of Stanford-le-Hope and from the A1014 from the south edge of Corringham).

Local Variations in Character

- 11.17 Localised areas with distinct character have been identified as follows:

Chadwell Historic Core

- 11.7 The Chadwell Historic Core forms the main node within the town today and the original crossroads road form and historic buildings give it a recognisable historic core character distinct from the remainder of the settlement. The historic village was linear in form, aligned along the main north- south road of Chadwell Hill, and the crossroads of Linford Road and Chadwell Road.

Stanford-le-Hope Historic Core

- 11.18 The Stanford-le-Hope Historic Core forms the main node within the settlement of Stanford-le-Hope today. Its historic form is recognisable as a result of the triangular form of the green, the church, the Inn on the Green and other older buildings in the vicinity. This marks the original village.

Northern and Southern Victorian Suburbs

- I1.19 The Northern and Southern Victorian Suburbs have been changed over time, but are recognisable as a result of the survival of Victorian buildings comprising a mixture of smaller terraced houses and larger villa-style houses in red brick often with bay windows, tile detailing, and brickwork patterns.

Barite Close Industrial Area

- I1.20 Although this area is small, it is distinct due to the industrial land use that sets it aside from the residential areas of the remainder of the urban area.

Mucking Creek Floodplain

- I1.21 This area is distinct from the remainder of the urban areas because it forms a naturalistic valley landscape alongside Mucking Creek.

Character Evaluation

Quality/ Condition

- I1.22 Condition varies throughout the area. Areas that remain historically intact and in good condition include the historic core of Stanford-le-Hope, Hassing brook Hall, the course of Mucking Creek and some of the intact Victorian streets and inter-war areas of Stanford-le-Hope. Other areas appear to be in a state of decline.

Past change

- I1.23 Stanford-le-Hope and Corringham were once rural medieval villages separated by open farmland comprising irregular field systems with a highly dispersed settlement pattern including some significant medieval farms. It was not until the inter-war and post-war periods when development really started to expand resulting in the merging of the two settlements. Since then there has been some change and redevelopment, as well as a decline in the condition of some areas.

Key sensitivities and valued attributes

- I1.24
- The value of some features is recognised through designations, such as the listed historic buildings and the Local Nature Reserve along Mucking Creek. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
 - The valley of Mucking creek and its naturalistic land cover including deciduous woodland, swamp and wet woodland (some of which forms Grove house Wood and Marsh Local Nature Reserve).
 - The historic core of Stanford-le-Hope (discernible in the form of the historic church, triangular green and the 'Inn on the Green') which provides a sense of history, visual interest and a distinct sense of place.
 - The intact Victorian streets in Stanford-le-Hope which provide architectural and visual interest and a sense of history.
 - The intact areas of inter-war housing which provide a sense of history and visual interest.
 - The open green spaces and street trees which provide valuable urban habitats and a green backdrop to buildings.
 - Hassenbrook Hall which provides visual interest, sense of place and a sense of history (a reminder of the role of the area previously as rural farmland landscape containing significant medieval farms).

- The church tower at the centre of Stanford-le-Hope and the clock tower on Hassenbrook Academy which are valued as local landmarks.
- The long distance views northwards to the Langdon Hills from central Corringham (particularly when descending northwards).
- The views across the Thames Estuary from the southern edges of both settlements (e.g. from Billett Lane on the south edge of Stanford-le-Hope and from the A1014 from the south edge of Corringham).

Vision

The vision for this character area is of two distinct settlements: Stanford-le-Hope with a strong, high quality and well preserved historic core comprising locally distinctive buildings, intact Victorian streets and high quality suburbs and with the naturalistic valley of the Mucking Creek; Corringham with high quality and vibrant local centres and biodiverse green spaces comprising vegetation that reflects the underlying landscape; and both settlements with good pedestrian access between them and the rural landscape setting, and with visual connections to the Langdon Hills to the north and the Thames Estuary to the south.

Opportunities and Guidance

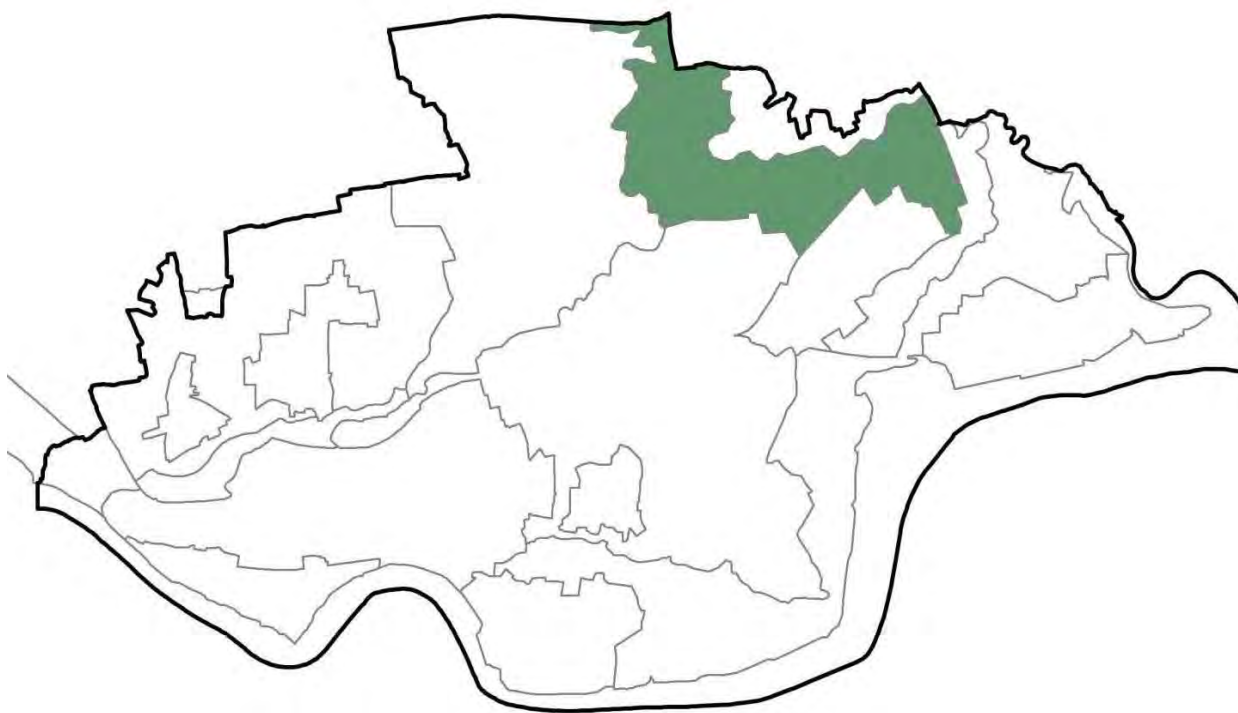
11.25 Opportunities and guidance relevant to this area are:

- Build distinct identities for the two settlements and enhance gateways to each settlement, providing a welcoming arrival with a recognisable sense of place – aim for consistent and locally distinctive materials, furniture and signage in each settlement.
- Maintain and enhance the floodplain of Mucking Creek, keeping it free of development and enhancing the naturalistic character and woodland/ swamp habitats - enhance access to the valley so that it may be enjoyed.
- Conserve and enhance the historic core of Stanford-le-Hope – ensure any new development respects the form, scale and character of the core and respects the historic church, triangular historic green and the 'Inn on the Green'.
- Conserve historic features such as Hassenbrook Hall and enhance views to these features – consider provision of interpretation facilities to enhance understanding and appreciation of these features and to communicate the history of the area as a medieval rural farmland. Conserve and enhance the Victorian streets in Stanford-le-Hope and on the edge of Corringham Village – ensure any new development respects the scale and form of buildings and materials to enhance sense of place.
- Enhance visual and physical connectivity of urban areas with the rural landscape setting – create opportunities to appreciate views to the Langdon Hills to the north and Thames Estuary to the south.
- Encourage street tree planting along existing streets to enhance the leafy character of the suburbs and encourage restoration of garden boundaries where these have been lost.
- Use native planting to screen residential areas from major transport routes such as the railway, A13 and A1014.
- Invest in refurbishment of shopfronts to enhance the condition of the townscape and sense of place.
- Encourage use of native species in open spaces to reflect the underlying geology/ soils and

improve biodiversity – aim to link up open spaces to provide a Green Infrastructure network that connects with the surrounding rural landscape.

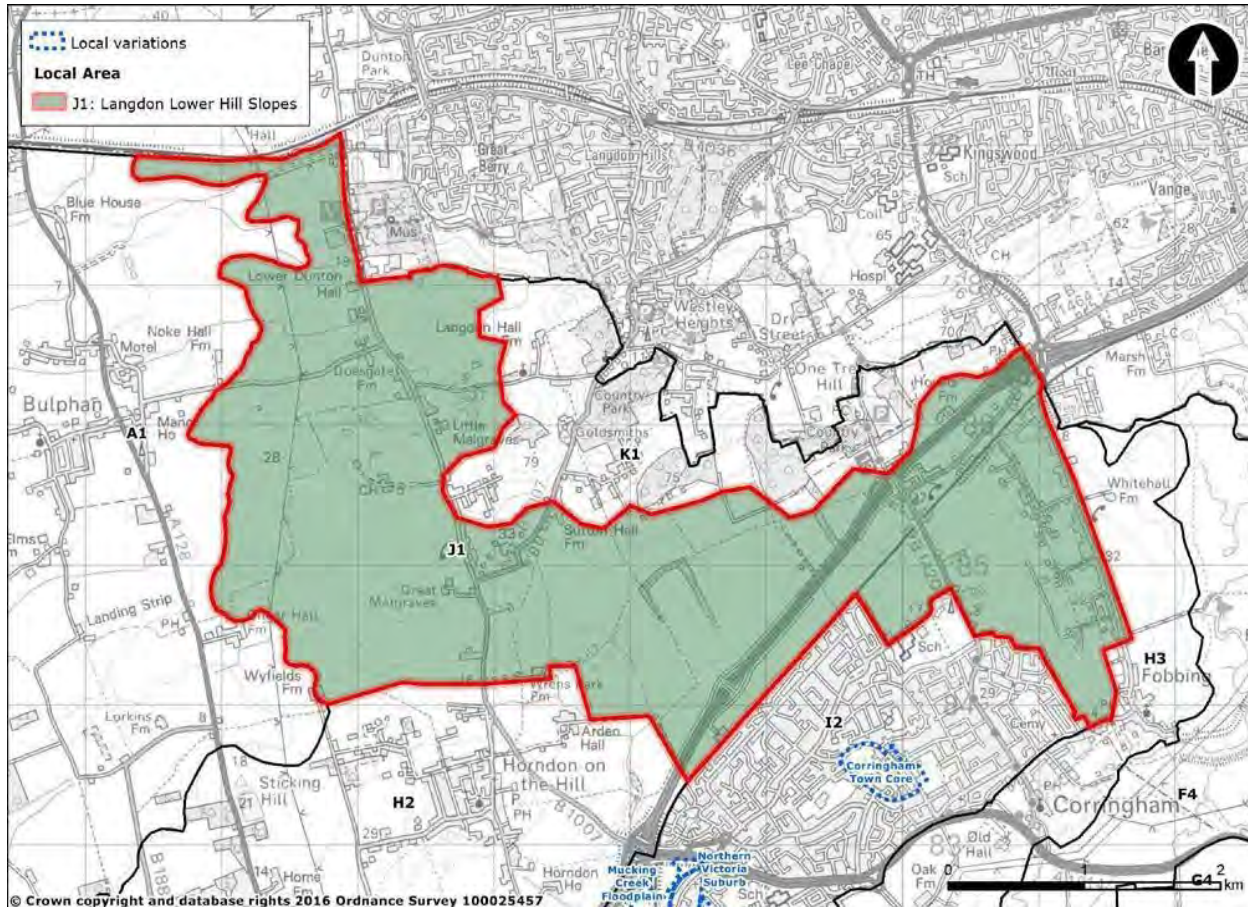
- Soften the currently harsh urban edges with planting and features typical of the surrounding rural landscape.
- Maintain the church tower at the centre of Stanford-le-Hope and the clock tower on Hassenbrook Academy as local landmarks.
- Use a coordinated material palette with particular regard to street furniture and signage to improve legibility.

LCT J: Lower Hill Slopes



- J1.1 This landscape type is defined by the lower and more gently sloping land of the Langdon Hills that sits below the **Higher Hills LCT**. The lower slopes are underlain by London clay and characterised by agricultural fields often with historic field patterns bounded by well-defined hedgerows with hedgerow trees.
- J1.2 There is one character area associated with the 'Lower Hill Slopes' character type in Thurrock:
- **LCA J1: Langdon Lower Hill Slopes**

LCA J1: Langdon Lower Hill Slopes



Location and Boundaries

- J1.3 The **Langdon Lower Hill Slopes** LCA is situated close to the north eastern administrative boundary of Thurrock, adjacent to the **Langdon Higher Hills** LCA. The boundary of this area with the **Langdon Higher Hills** roughly follows the 35m contour line while the boundary with lower lying areas to the west (**Bulphan Fenland**) and south (**Orsett & Horndon-on-the-Hill Open Undulating Farmland**) roughly follows the 15m contour line. The character area extends up to the northern administrative boundary with Basildon near to the Dunton Plotlands Nature Reserve. The boundary to the east follows High Road leading into the village of Fobbing, beyond which lies the low lying Fobbing Marshes. The character area also shares a boundary with **LCA I2 Stanford- le-Hope & Corringham** – this boundary is defined by the urban edge and the London, Tilbury and Southend railway line. A number of roads traverse the character area including the A13 which bisects the area from the north east to the southwest.

Photos

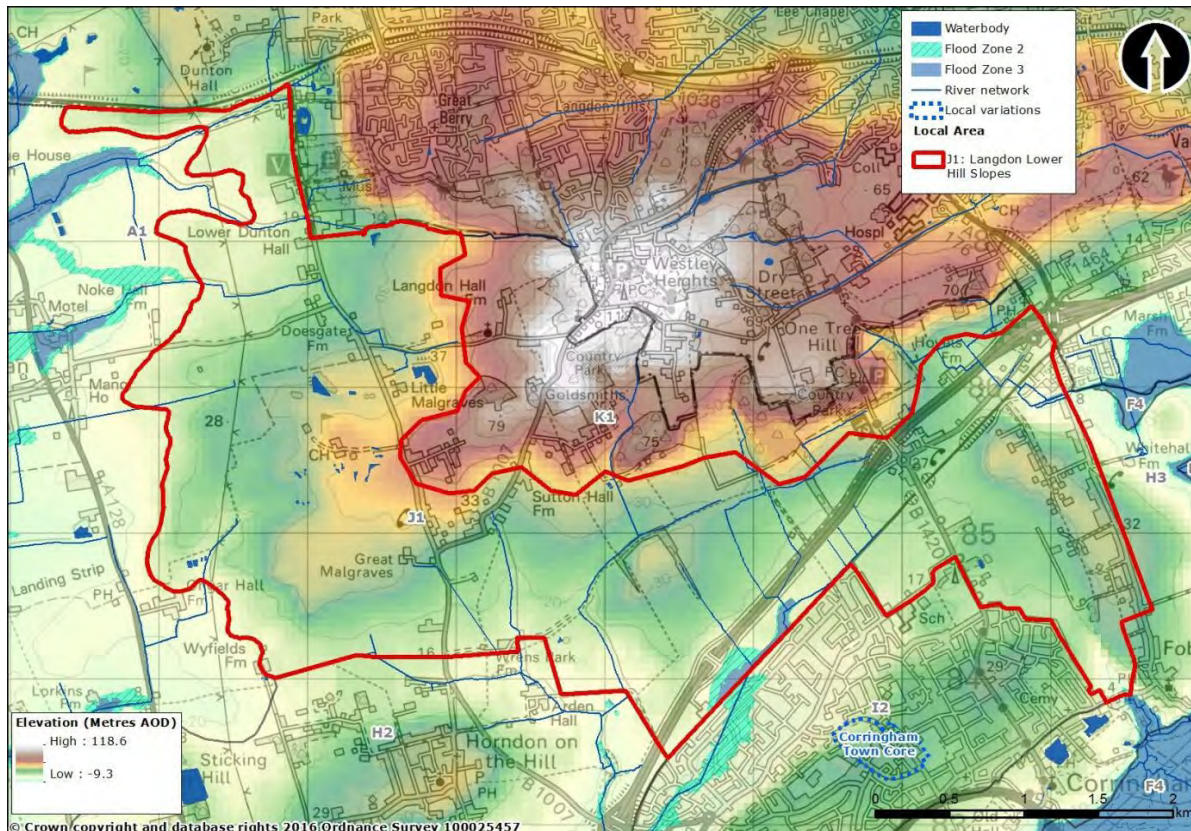


Views across undulating arable fields defined by intact hedgerows contribute to a high scenic quality.

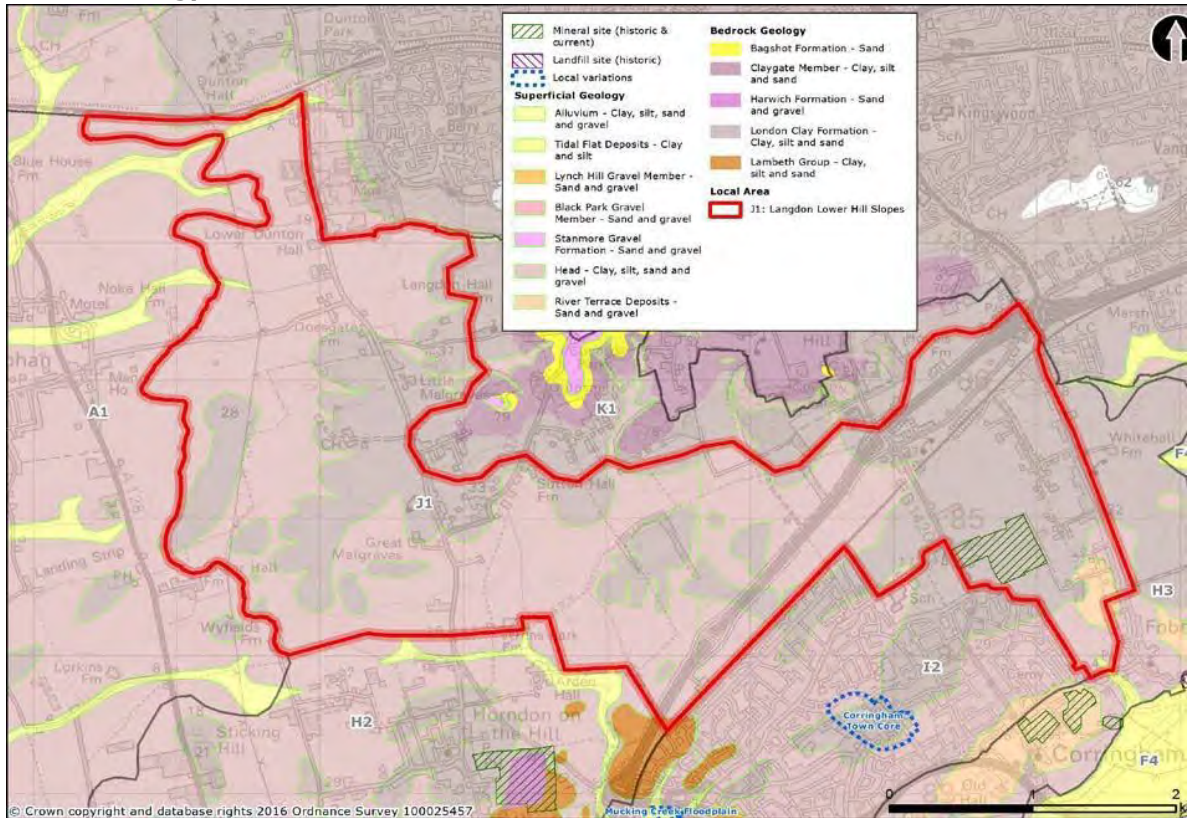


Modern ribbon development at Fobbing has an urbanising influence over a typically tranquil and rural landscape

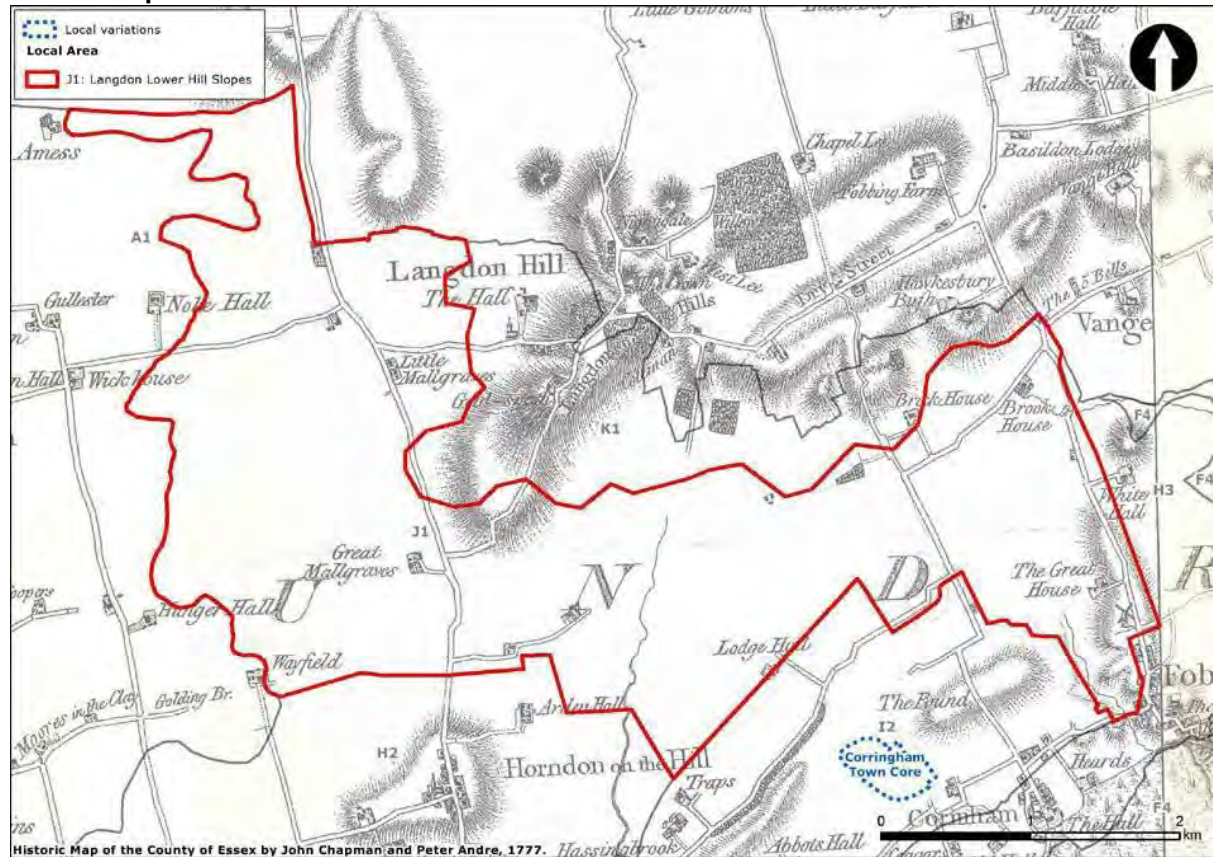
Topography and Drainage



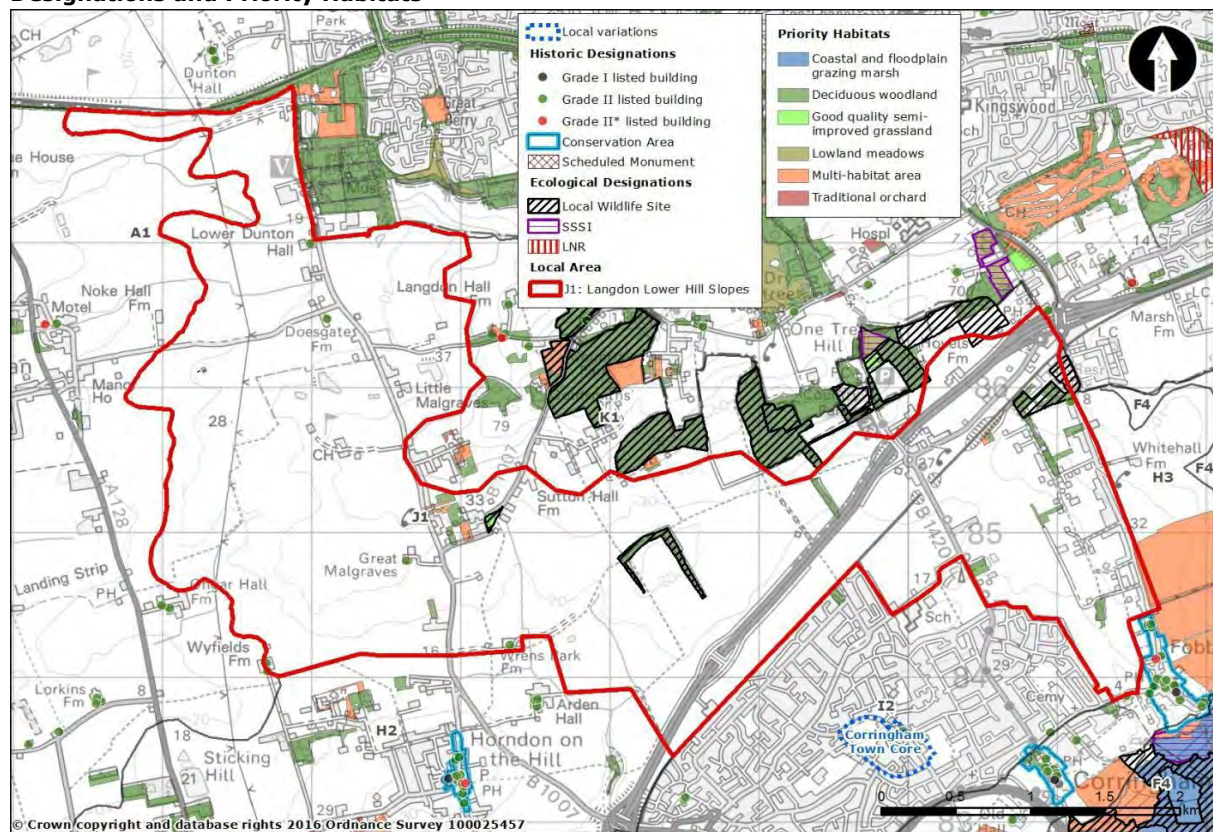
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- J1.4 This area occupies the lower slopes of the Langdon Hills, forming a band of undulating farmland between the settlements of Corringham and Basildon. The landscape slopes up towards the higher ground on the Langdon Hills from where there are views over the lowlands. The settlement pattern is typically rural and dispersed with scattered farmsteads although a small amount of ribbon development is present to the north of Fobbing.

Key Characteristics

- Gently sloping and undulating lower slopes of the Langdon Hills with views up to the higher wooded Langdon Hills.
- The underlying clay geology gives rise to slowly permeable clayey soils which results in moderate quality agricultural land.
- The hills slopes have a strong field pattern comprising a mixture of smaller scale pre-18th century enclosures and large 20th century enclosures.
- These arable and pastoral fields are well-defined by hedgerows with trees and tree belts that provide a strong pattern and texture.
- Well-vegetated brooks and drainage ditches form field boundaries and drain into the marshes in the south. Water courses are often well vegetated with trees and hedgerows, providing attractive features in the landscape.
- Small areas of deciduous woodland and semi-improved grassland provide additional texture and add to the visual appeal of the hills as well as being of nature conservation significance.
- The settlement pattern is typically scattered isolated farmsteads situated along minor roads traversing the area. However, this pattern has been altered by 20th century ribbon development, for example to the north of Fobbing.
- The typical built style is of individual farmsteads and rural buildings located close to existing rural roads, typically constructed from red brick or white rendered with clay tile roofs and weatherboarding, with weather-boarded barns.
- This area has a relatively high scenic quality as a result of the undulating topography, intact field pattern and hedgerow network, elevated landform that enables a sense of prospect, the texture provided by trees and woodlands and the attractive historic buildings.
- A tranquil rural landscape compared to other parts of Thurrock.
- There are long-distance, panoramic views to the east and south over the Fobbing Marshes and River Thames from the ridge north of Fobbing.
- Surprise views up to the wooded Langdon Hills from winding tree-lined roads.

Components that Contribute to Character

Landscape Component	Description
Geology	The bedrock of the Lower Hill Slopes primarily consists of clay, silt and sand of the London Clay Formation. Lower areas are covered by superficial deposits of Head (comprising clay, silt, sand and gravel deposits). There are relatively small areas of alluvium along narrow valleys in the north, and sand and gravel river terrace deposits on the ridge north of Fobbing.
Topography	The landform is gently sloping from about 10m AOD at the lower Footslopes to 35m AOD where it joins the Langdon Upper Hills. There is also a small ridge at a height of 30m AOD north of Fobbing.
Hydrology	Small brooks and drainage ditches run along field boundaries throughout the character area, beginning at the top of Langdon Hills in the north before flowing into the Mucking Creek and the marshes in the south. Water courses are often well vegetated with trees and hedgerows.
Soils	The character area is predominately made up of slowly permeable clayey soils mostly with brown subsoils, though some fine loamy and fine silty over clayey soils can be found throughout. The area has an Agricultural Land Classification of Grade 3 and seasonal waterlogging is not uncommon in the area.
Land Use	A mix of arable and pastoral farmland. Langdon Hills Golf and Country Club covers a large area in the centre which provides a recreational land use whilst residential is situated in the form of ribbon development north of Fobbing.
Land Cover and Biodiversity	The dominant land cover is pastoral grassland and arable crops set in fields. These fields show a variety of shapes and sizes, but are generally geometric and defined by hedgerows and hedgerow trees. Small areas of deciduous woodland and semi-improved grassland are priority habitats, some of which are of local nature conservation significance. Hedgerows provide a strong landscape structure across the area and the A13 corridor is recognised as a site of local nature conservation significance. The Vange Depot is a largely disused water company site on the east of the area that is designated as a County Wildlife Site for the very diverse flora and fauna it supports.
Settlement Pattern/ Form	The settlement pattern is typically scattered isolated farmsteads and large dwellings situated along minor roads traversing the area. However, this pattern has been altered by 20th century ribbon development, for example to the north of Fobbing on the small ridge. Properties north of Fobbing are limited to one side of the road and overlook open fields further to the east which creates a relatively exposed settlement edge to Fobbing.
Building Style	Scattered farmsteads comprise large farmhouses with associated agricultural buildings. Properties extending from Fobbing are predominantly detached two- storey, houses and are generally limited to one side of the road. They are relatively large properties with dormer windows and are set back from the road. Modern building styles and materials such as red brick and clay tiles are common.
Historic Landscape and Time Depth	Pre 18th century enclosure was once in abundance throughout the character area and although some still remains to date, farming pressures have seen the rise of 20th century agricultural field systems replacing earlier field patterns. London, Tilbury and Southend Railway has traversed the area since the 1850s but the construction of the road (now known as the A13) in the 1930s further fragmented the landscape and introduced an urbanising influence. More recent development at Fobbing has not only altered the character of the village, located just outside the character type, but also has urbanising influence on the surrounding landscape.
Cultural Associations	None known.
Scenic Qualities	This area has a relatively high scenic quality as a result of the undulating topography, intact field pattern and hedgerow network. The elevated landform provides a sense of prospect and the trees and woodlands and the historic buildings provides texture to the landscape.
Perceptual Qualities	The undulating landform and intact field boundaries create localised areas of Enclosure with a sense of tranquillity. Trees provide a strong unifying element and the presence of human scale features including farmsteads create memorable rural character.
Visual Character and Views	The wooded hills form a backdrop to most views in the western area whilst surprise views up to the wooded hills are available from gaps in tree belts and hedgerows lining the roads on the higher ground. There are long-distance, panoramic views to the east and south over the Fobbing Marshes and River Thames from the settlement edge on the ridge north of Fobbing. A

Landscape Component	Description
	Strategic View, as shown on the Greengrid Opportunities Map, from the Fobbing ridge illustrates this type of view.
Landmarks and Skylines	Although located outside the character area, St Michael's Church at Fobbing is a landmark in views from the lower slopes. Industrial chimneys and buildings also form prominent landmarks rising out of the otherwise flat landscape in the south.
Landscape Function and Green Infrastructure	The Lower Hill Slopes contain a number of proposed Strategic Green Links generally running upslope and downslope connecting adjacent towns and villages to Basildon via the Langdon Hills, as well as some small areas of proposed Semi-Natural Greenspace (linked to Fobbing Marshes to the east and the higher hills to the north) as set out in Figure 4.8 of the Thurrock Green Infrastructure Plan. The A13 is noted as a green corridor along its length, as well as creating a barrier to movement laterally.

Character Evaluation

Landscape Quality/ Condition

- J1.5 Landscape quality (condition) is influenced by the condition of landscape components. Hedgerows forming field boundaries and lining country lanes are typically mature and in relatively good condition which creates a unified pattern and harmonious, high quality landscape. Small geometric blocks of woodland are also generally in good condition and combine with hedgerows to help assimilate small areas of development and main roads into the landscape and this provides a largely unspoiled scenic quality. Farmland is generally well managed and in active use. Surprise views of the wooded hills in the north and the prospect and views over lower lying areas also contribute to the scenic quality.

Past change

- J1.6 The Lower Hill Slopes have been subject to intensive farming practices which have resulted in the loss of some hedges and trees and enlargement of fields over the 20th century. London, Tilbury and Southend Railway also known as Essex Thameside was constructed in the 1850s and bisects the land from north east to south west. The A13 roughly follows the route of the railway and has been progressively widened so that it now fragments the landscape. The 20th century has seen ribbon development along minor roads, for example north of Fobbing.

Key sensitivities and valued attributes

- J1.7 The value of some features is recognised through designation, such as listed building status that aims to protect the historic farmsteads and their barns, and Local Wildlife Sites which aim to protect the biodiversity value of some specific sites. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- Surprise views of the higher wooded hills along country lanes which create a memorable sense of place and contribute to a high scenic quality.
 - The strong field pattern (particularly the pre-18th century fields) that provide a sense of history and contributes to the scenic quality of the hills.
 - The intact hedgerow network including hedgerow trees and tree belts that provide visual interest and biodiversity interest.
 - The rural tree lined roads that provide a sense of history and visual appeal.
 - The well-vegetated brooks and drainage ditches that provide visual appeal and biodiversity interest.
 - The areas of deciduous woodland and semi-improved grassland that add to the visual appeal of the hills as well as being of nature conservation significance.
 - The historic farmsteads and weather-boarded barns that provide a sense of history and visual appeal.
 - The sense of rural tranquillity that could be vulnerable to urbanising or suburbanising features.
 - The historic buildings that extend north from the historic village of Fobbing provide a strong historic identity and reveal the local vernacular.
 - Views of the church tower at Fobbing which provides a sense of history and visual appeal.
 - Views over the lowlands which give the area a sense of elevation and prospect.

Vision

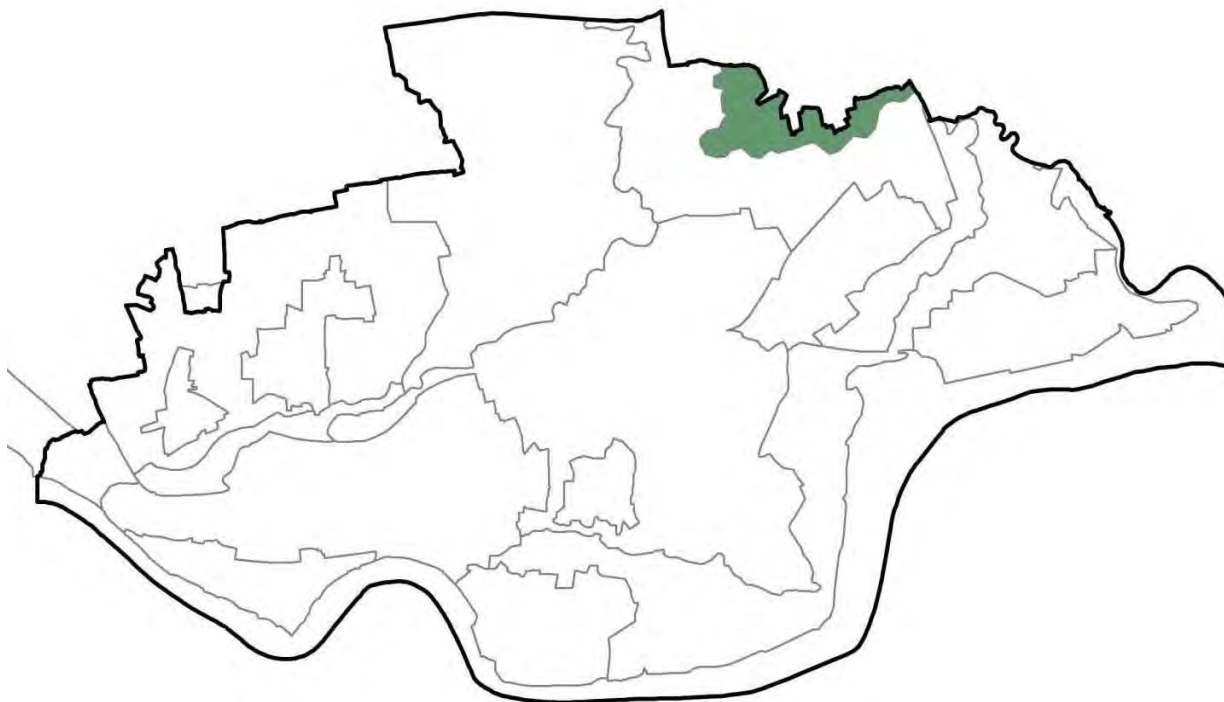
The vision for this character area is: A rural landscape of well-managed farmland and deciduous woodland with healthy, mature hedgerows and tree belts reinforcing the pre-18th century enclosure patterns that characterise the area, with historic farmsteads and rural buildings built in the local vernacular and linked by rural tree-lined lanes and footpaths that encourage use of Langdon Hill for recreation.

Guidance to conserve and enhance character

- Conserve the largely intact rural character of the landscape and sense of rural tranquillity that is relatively rare in Thurrock and provides an important breathing space between urban areas.
- Preserve and enhance the network of hedgerows, hedgerow trees and woodlands through active planting and management and consider re-planting hedgerows along former boundary lines to restore the pre-18th century enclosure pattern where it has been lost.
- Consider opportunities to create more areas of deciduous woodland and semi-natural grassland habitats, extending and joining these up.
- Conserve the character of the narrow rural tree-lined lanes – resist widening or suburbanisation of these features.
- Maintain the well-vegetated brooks and drainage ditches as features of the landscape and ensure their biodiversity interest is maximised.

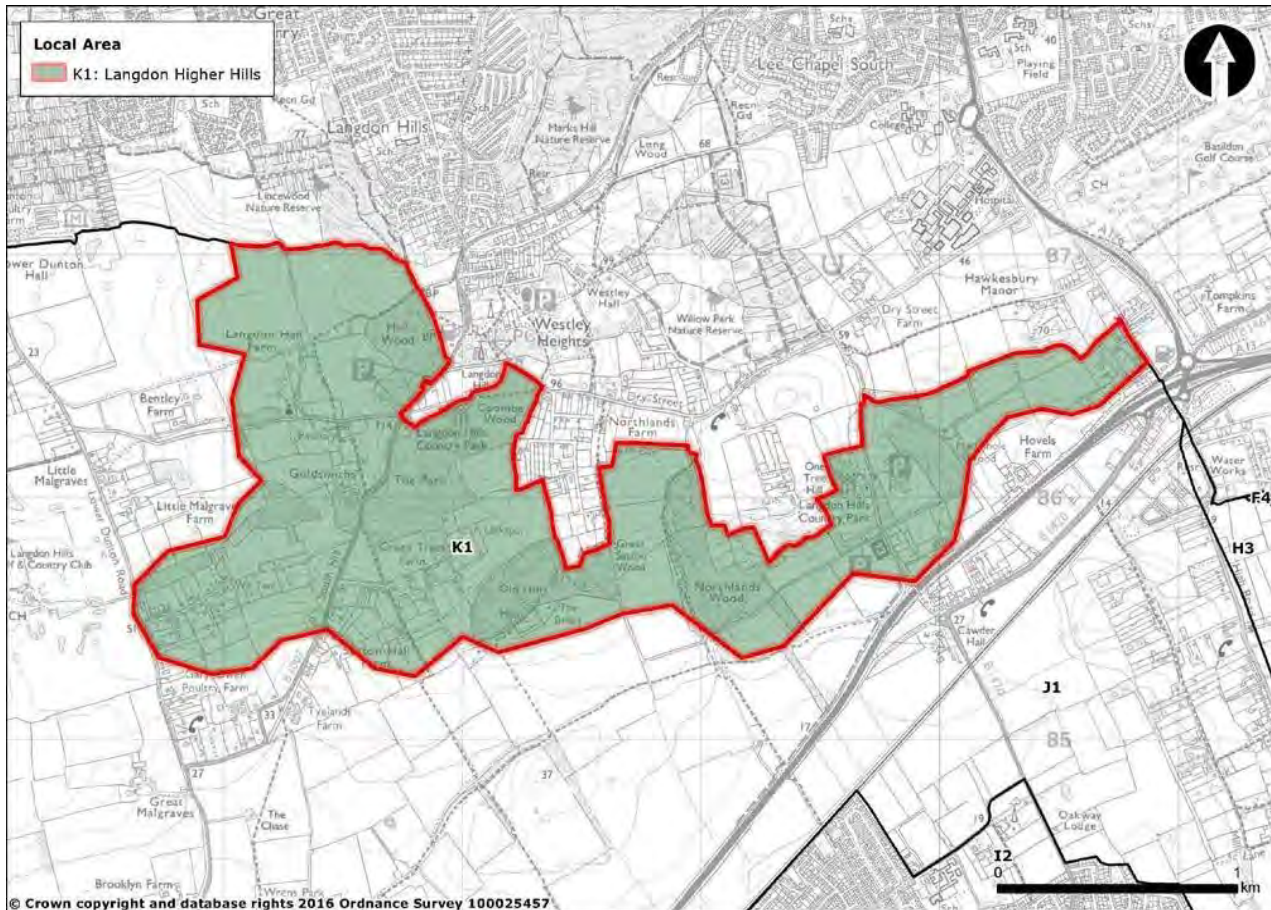
- Preserve the historic farmsteads, weather-boarded barns and historic buildings that extend north from the historic village of Fobbing as features of the area; ensure that any new built development fits with the rural character of the area and draws on local vernacular styles and materials including red brick, timber frame, whitewash and weatherboarding. Boundaries are also important when fitting with the rural character of the area.
- Conserve the sense of rural tranquillity and relatively dark skies compared to other parts of Thurrock. Minimise urbanising or suburbanising features and lighting, designing any necessary lighting to minimise light spill or glare.
- Maintain opportunities to experience surprise views of the higher wooded hills along country lanes, views to the church tower at Fobbing and views over the lowlands – consider providing viewing points with interpretation boards to promote enjoyment of these.

LCT K: Higher Hills



K1.1	This landscape type is defined by the steep, higher wooded land of the Langdon Hills between the Lower Hill Slopes (LCT J) to the south and west and the administrative boundary with Basildon to the north (the hills continue across the administrative boundary into Basildon). The higher hills are well wooded with fields of pasture and localised areas of large houses and bungalows.
K1.2	There is one character area associated with the 'Higher Hills' character type in Thurrock: • LCA K1: Langdon Higher Hills

LCA K1: Langdon Higher Hills



Location and Boundaries

- K1.3 The Langdon Higher Hills Character Area is situated in the north-east of Thurrock adjacent to the Borough of Basildon. The hills extend into Basildon as 'LCA14 Langdon Hills' as described in the Basildon Borough Landscape Character Assessment⁵). The western and southern boundary with LCA J1: Langdon Lower Hill Slopes roughly follows the 35m contour line, the point roughly at which there is an increase in steepness of topography.

Photos



Elevated landform with long views towards the London skyline contributing to a high scenic quality.



The hills provide a breathing space and extensive views.

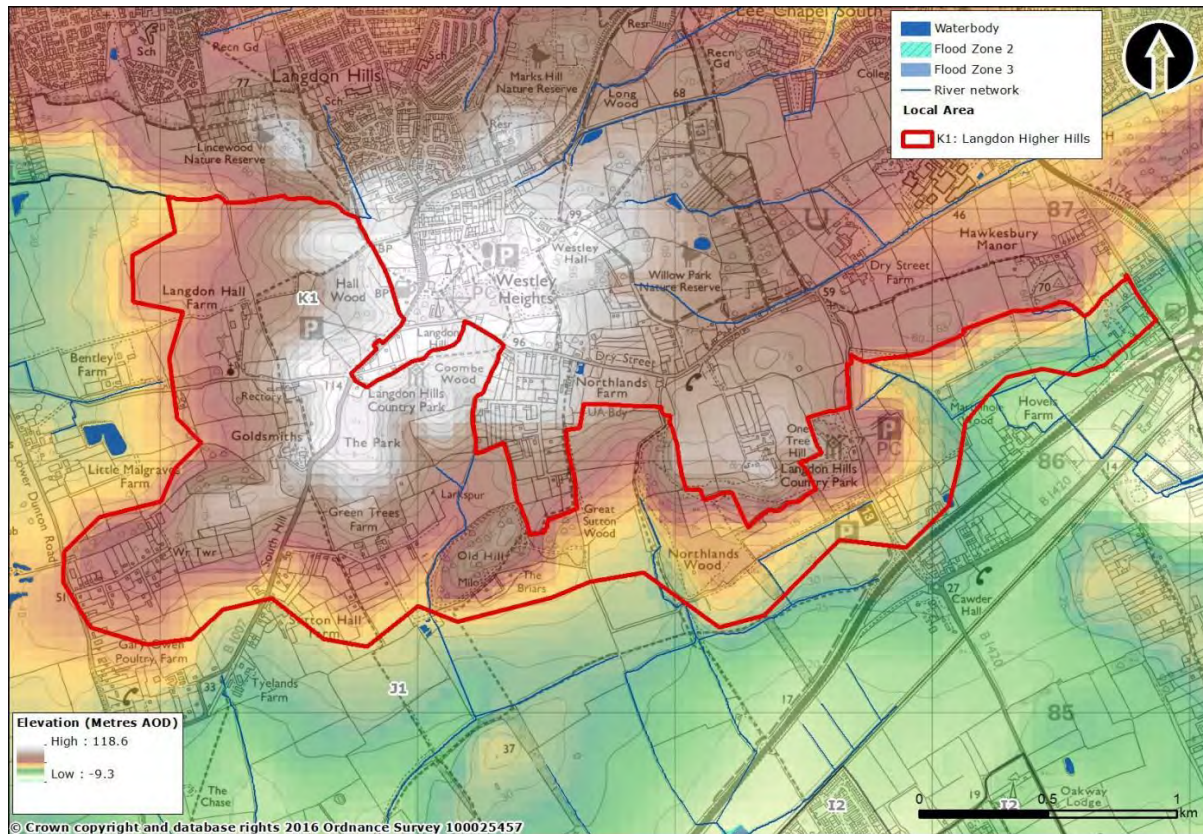


Langdon Hills Country Park provides recreational value with public footpaths connecting with adjacent character areas.

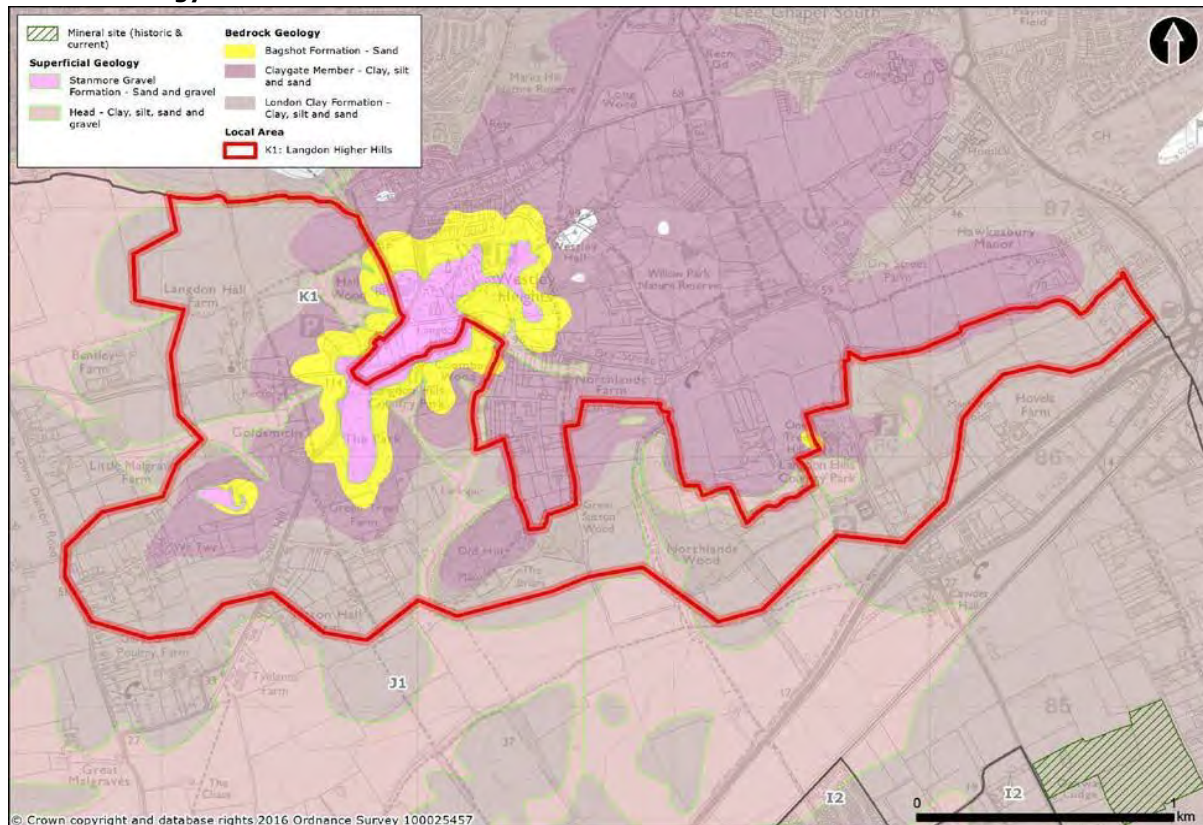
Local Scale Landscape Character Profile

Landscape Character Area:
K1: Langdon Higher Hills

Topography and Drainage



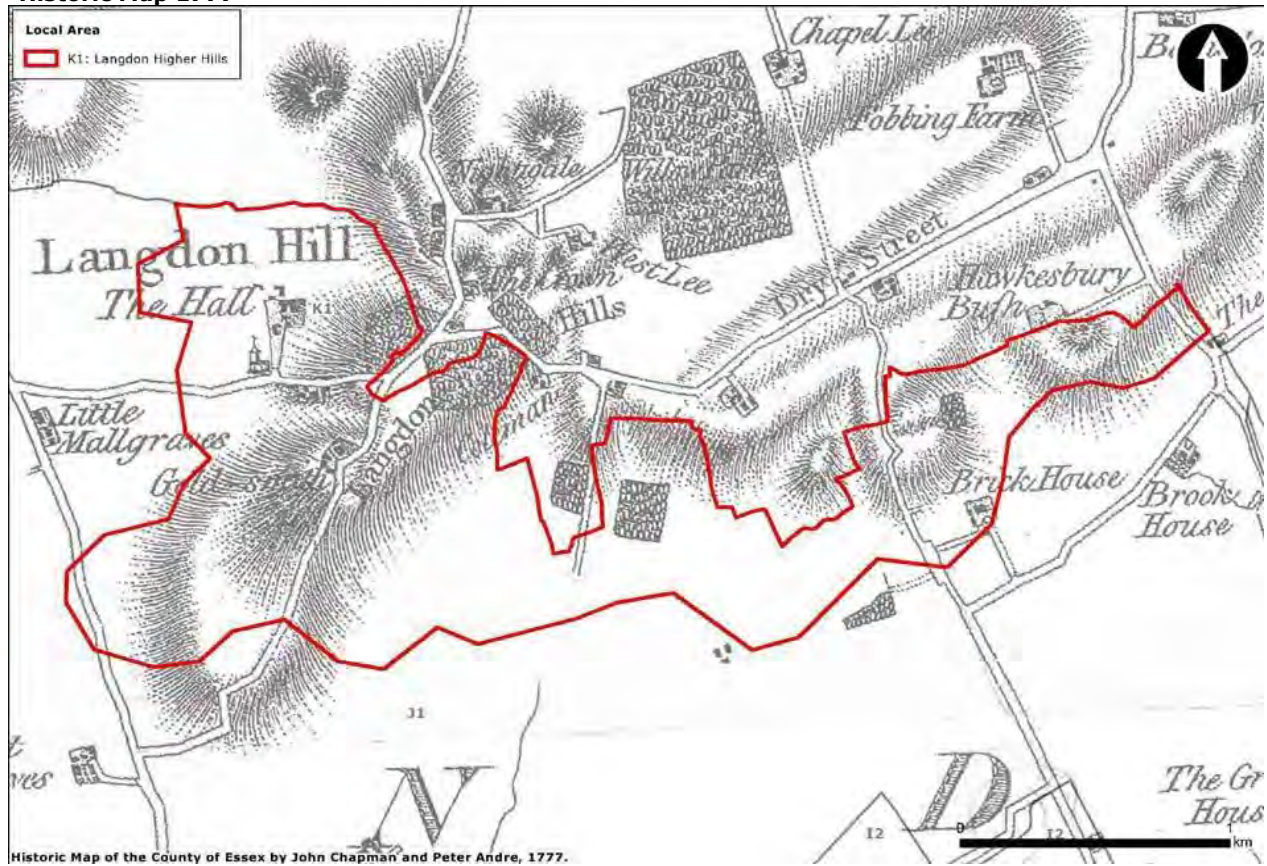
Surface Geology and Minerals



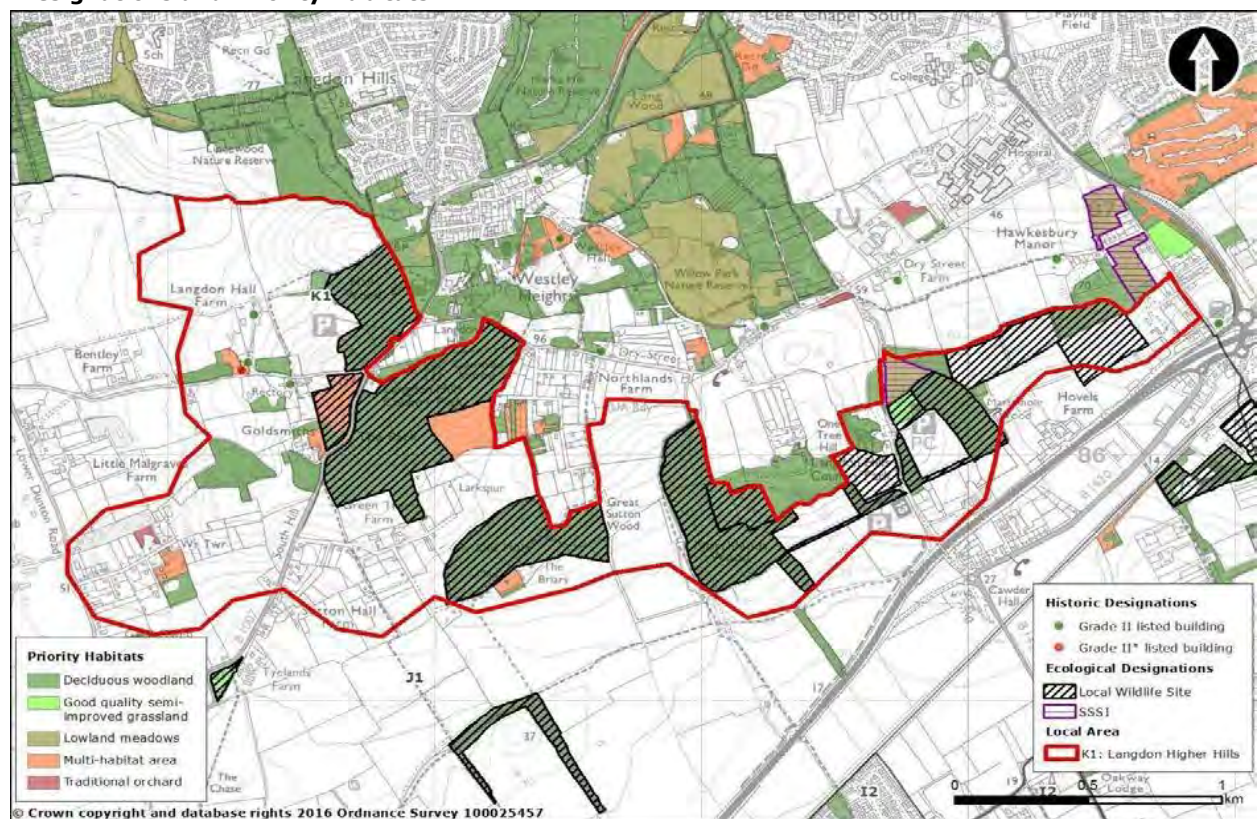
Local Scale Landscape Character Profile

Landscape Character Area:
K1: Langdon Higher Hills

Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- K1.4 This area of strongly undulating hills is characterised by irregular fields of pasture bounded by hedgerows and hedgerow trees, and interspersed with large areas of woodland. The landscape is highly rural, but contains localised areas of large houses and bungalows in a wooded setting. Plotland-style development still remains in some of the wooded areas.

Key Characteristics

- The upper slopes of the prominent rounded gravel and sand hills, reaching heights of 110m AOD on the edge of Langdon Hill, that are discernible from considerable distances.
- The underlying clay geology gives rise to slowly permeable clayey soils which give rise to moderate quality agricultural land, with some better drained soils on hilltops.
- Drained by minor streams which form wooded features on the hillsides.
- A mosaic of irregular shaped pastoral fields well-defined by trees and hedgerows, blocks of deciduous woodland (including much ancient woodland of oak and coppiced hazel/sweet chestnut), arable fields and herb rich meadows (including the Hawkesbury Grasslands local wildlife site and Basildon Meadows SSSI).
- Historic features including remains of medieval embanked woodland enclosures and ancient field systems, historic buildings around Langdon Hall Farm and the Church of St Mary and All Saints, and at Hawkesbury Manor, and abandoned plotlands that are now wooded.
- A well-integrated and dispersed low density pattern of historic farmsteads and halls/ manors with scattered houses/ bungalows in a wooded setting, some on former plotlands.
- Older buildings demonstrate the use of traditional materials including red brick, white render and weatherboarding with red tile roofs, which gives the area sense of place.
- Older buildings demonstrate the use of traditional materials including red brick, white render and weatherboarding with red tile roofs, which gives the area sense of place.
- Recreational value provided by the Langdon Hills Country Park and footpaths.
- Cultural interest provided by the remains of the Tilbury Brick Company's brick kilns, sand pits and ponds that were active from 1886-1906 (at One Tree Hill).
- Deeply tranquil landscape with woodland a strong and unifying element and narrow country lanes.
- The combination of undulating landform, intact field patterns, views framed by woodland, and historic buildings create visual variety and a high scenic quality.
- Long-distance, panoramic views towards London and the Thames across the fen and marshes from elevated landform.
- The wooded hills are visually prominent from the lower lying landscape and form a landmark and a backdrop in views across the marshes.

Components that Contribute to Character

Landscape Component	Description
Geology	Clay, silt and sand associated with the London Clay Formation underlies the lower slopes below approximately 55-60m AOD; the Claygate Member underlies the area between about the 60m and 80m contours and areas of the sandy Bagshot Formation are also located on the tops of the hills. Superficial deposits comprise sand and gravel of the Stanmore Gravel Formation on the tops of the hills in the Langdon Hills Country Park with bands of Head (comprising clay, silt, sand and gravel) marking the course of valleys.
Topography	The character area comprises the upper slopes of the Langdon Hills, reaching 110m AOD on the edge of Langdon Hill. The hill summits are in the adjacent Borough of Basildon.
Hydrology	The hills are drained via a number of minor streams. These water courses generally flow southwards and ultimately end up leading to Mucking Creek and the Thames.
Soils	Slowly permeable seasonally waterlogged or slightly waterlogged clayey soils mostly with brown subsoils characterise the slopes with some areas of fine loamy over clayey and fine silty over clayey soils on the hill tops (e.g. at Langdon Hill). This gives rise to good to moderate quality agricultural land (Grade 3 Agricultural Land Classification).
Land Use	Land uses comprise agriculture (a mixture of arable and pasture fields), recreational uses associated Langdon Hills Country Park residential land use. A network of footpaths traverses the landscape and offers recreational connections as well as connecting a number of residential properties and neighbouring settlements.
Land Cover and Biodiversity	Land cover is mostly irregular pastoral fields delineated by hedgerows and hedgerow trees and areas of deciduous woodland (a priority habitat and many of which are local wildlife sites). However there are also some arable fields and some herb rich meadows including the Hawkesbury Grasslands local wildlife site and Basildon Meadows SSSI. The deciduous woodland is often ancient and is concentrated throughout the Langdon Hills Country Park. The mix of woodland and pastoral fields creates a contrast in openness and enclosure across the character area.
Settlement Pattern/ Form	Settlement comprises dispersed farmsteads and localised areas of low density houses and bungalows in a wooded setting, some on former plotlands. There are also some abandoned plotlands that are now wooded. Buildings are typically set within woodland and are well integrated into the landscape.
Building Style	Buildings consist of historic halls and farmsteads (some timber-framed), such as Langdon Hall Farm and Hawkesbury Manor, as well as more modern one and two-storey dwellings. Materials vary across the area but traditional materials include red brick, white render and weatherboarding with red tile roofs.
Historic Landscape and Time Depth	The HLC indicates that this area comprises some areas of irregular pre-18th century enclosure and 18-19th century enclosures, 20th century agriculture and parks/ recreation. There hasn't been much change since the late 1950s except for some loss of field boundaries (and therefore pre 18th century field patterns) and a small amount of new built development. Langdon Country Park was formed in the 1970s whilst a small area in the north of has since been subject to post-1950s boundary loss and now comprises 20th century agriculture. There are remains of medieval embanked woodland enclosures and ancient field systems established for the purposes of woodland and livestock management, including for coppicing and as a deer park. There are a number of listed buildings around Langdon Hall Farm and the Church of St Mary and All Saints, and at Hawkesbury Manor.
Cultural Associations	Langdon Hills Country Park contains ancient woodlands dating back to prehistoric times as well as flower-rich meadows and areas of dense scrubland. There are also areas of recreational value. It has been awarded the Green Flag Award consecutively since 2010 and has been designated as part of the Wildlife Trust's Living Landscape initiative. One Tree Hill country park was once the site of the Tilbury Brick Company's two brick kilns. There was a light railway to carry bricks and materials from the site to the bottom of the hill. The location was chosen because of the ready availability of sand. The kilns were active from 1886-1906 sand pits still exist as do ponds and

Landscape Component	Description
	spoil pits. Plotlands began to establish in the late 1800s and up to the World War II when planning regulations were relaxed and land value was at a low as a result of the agricultural decline. The plotlands were once characterised by self-built holiday homes of Londoners who were seeking respite from London city. This gave rise to a varied character with a wide selection of building materials being used although over the years these have been replaced with bungalows and chalets. The spread of plotlands development halted with the introduction of Green Belt Policy in 1947.
Scenic Qualities	This area has a high scenic quality as a result of the undulating landform, intact field pattern and hedgerow network, views framed by woodland, and historic buildings.
Perceptual Qualities	A relatively naturalistic landscape with a sense of rural tranquillity and a human scale. The landscape has a sense of enclosure (provided by woodland) as well as a sense of prospect (arising from views over the surrounding lowlands). The woodland is a strong and unifying element.
Visual Character and Views	There are panoramic views to the south, west and east from the hills over the adjacent lowlands, including across the Thames estuary and towards central London. Two Strategic Views (as shown on the Green grid Opportunity Map) are located within this area: one from the elevated arable field adjacent to Hall Wood looking south-west and one from the sloping land near to One Tree Hill looking south.
Landmarks and Skylines	The wooded hills are a landmark in their own right and can be seen from long distances. Tall structures at London Gateway form prominent vertical landmarks.
Landscape Function and Green Infrastructure	The area contains a number of proposed Strategic Green Links connecting the Lower Hill Slopes with Mark Hill Nature Reserve in Basildon. The majority of Langdon Country Park and woodlands are proposed as Strategic Semi-Natural Greenspace.

Character Evaluation

Landscape Quality/ Condition

- K1.5 Landscape quality is influenced by the condition of landscape components. Landscape condition is good as a result of intact and well-defined irregular pastoral fields interlocking with mature woodland. Woodlands are typically well-managed as part of the Langdon Hills Country Park. Field gates and footpath junctions offer long ranging views which contributes to a remarkable landscape quality.

Past change

- K1.6 The Langdon Higher Hills have remained relatively unchanged over the years, except for the intensification of agriculture (conversion from pasture to arable and loss of field boundaries), and addition of modern housing at low density (the new built development has had relatively little influence over the wider landscape character due to tree cover). There has been some erosion of narrow rural lanes and increase in horsiculture and associated stables which has resulted in some visual clutter.

Key sensitivities and valued attributes

- K1.7 The value of some features is recognised through designations, such as Conservation Areas, Scheduled Monuments and Local Wildlife Sites. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The prominent and rural wooded skyline of the hills that would be vulnerable to built development.

- The stream courses that create visual interest and biodiversity interest.
- The irregular pattern of pre-18th century fields that provide a sense of history and are relatively rare in the context of Thurrock. Related to this is the intact hedgerow network that provides visual and biodiversity interest.
- Deciduous woodland (much ancient) including oak and coppiced hazel/sweet chestnut that provides a sense of history, biodiversity interest and provides a sense of place (and visual appeal). It also screens buildings so that the area retains a rural character.
- The areas of pasture and especially the herb rich meadows (including the Hawkesbury Grasslands local wildlife site and Basildon Meadows SSSI) that provide biodiversity interest, and sense of place.
- The remnant historic features including remains of medieval embanked woodland enclosures and ancient field systems, historic buildings around Langdon Hall Farm and the Church of St Mary and All Saints, and at Hawkesbury Manor, and abandoned plotlands that provide a sense of history and visual appeal.
- The well-integrated and dispersed low density pattern of development and use of traditional materials including red brick, white render and weatherboarding with red tile roofs, which gives the area sense of place.
- The recreational provision that enables people to enjoy the landscape and cultural interest provided by sites such as the Tilbury Brick Company's brickkilns.
- The sense of tranquillity and rurality that provides respite between the nearby conurbations. The low density development, narrow country lanes, woodland setting and built styles and materials are key to this character.
- The high scenic quality and opportunities for elevated panoramic views over the lowlands.

Vision

The vision for this character area is: A deeply tranquil and rural landscape with a high degree of woodland cover interspersed by a pastoral landscape (including herb-rich meadows) and a very low density settlement pattern that provides a breathing space and offers a range of scenic recreational experiences (including opportunities for panoramic views over the lowlands).

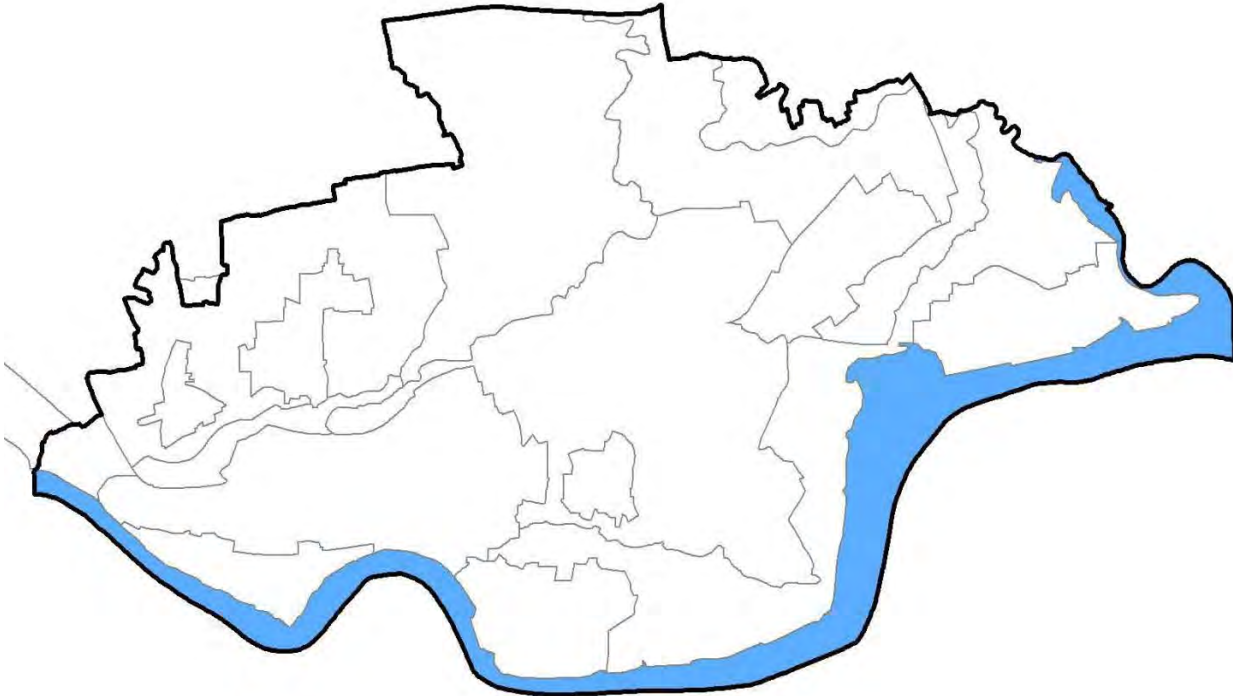
Guidance to conserve and enhance character

- Conserve the intact rural character of the landscape as a countryside destination for the local community and visitors to the Country Park.
- Preserve the well-wooded nature of the hills that form a backdrop to many views from the fen and marsh landscape – ensure built development does not intrude onto the wooded skyline.
- Conserve the irregular pre-18th field pattern that are relatively rare in the context of Thurrock; resist enlarging field or further loss of hedgerows.
- Maintain the well-vegetated streams as features of the hill slopes and ensure their biodiversity interest is maximised.
- Conserve and continue to actively manage deciduous woodland using traditional techniques – consider further woodland expansion to link existing areas and provided screening for built development.
- Conserve, and consider extending where possible, areas of herb rich meadows. Pastoral land uses are more characteristic than arable land uses in this area.
- Preserve the remnant historic features including remains of medieval embanked woodland enclosures and ancient field systems, historic buildings around Langdon Hall Farm and the

Church of St Mary and All Saints, and at Hawkesbury Manor, Tilbury Brick Company's brick kilns and abandoned plotlands and consider providing interpretation facilities to enhance people's understanding and enjoyment of the area.

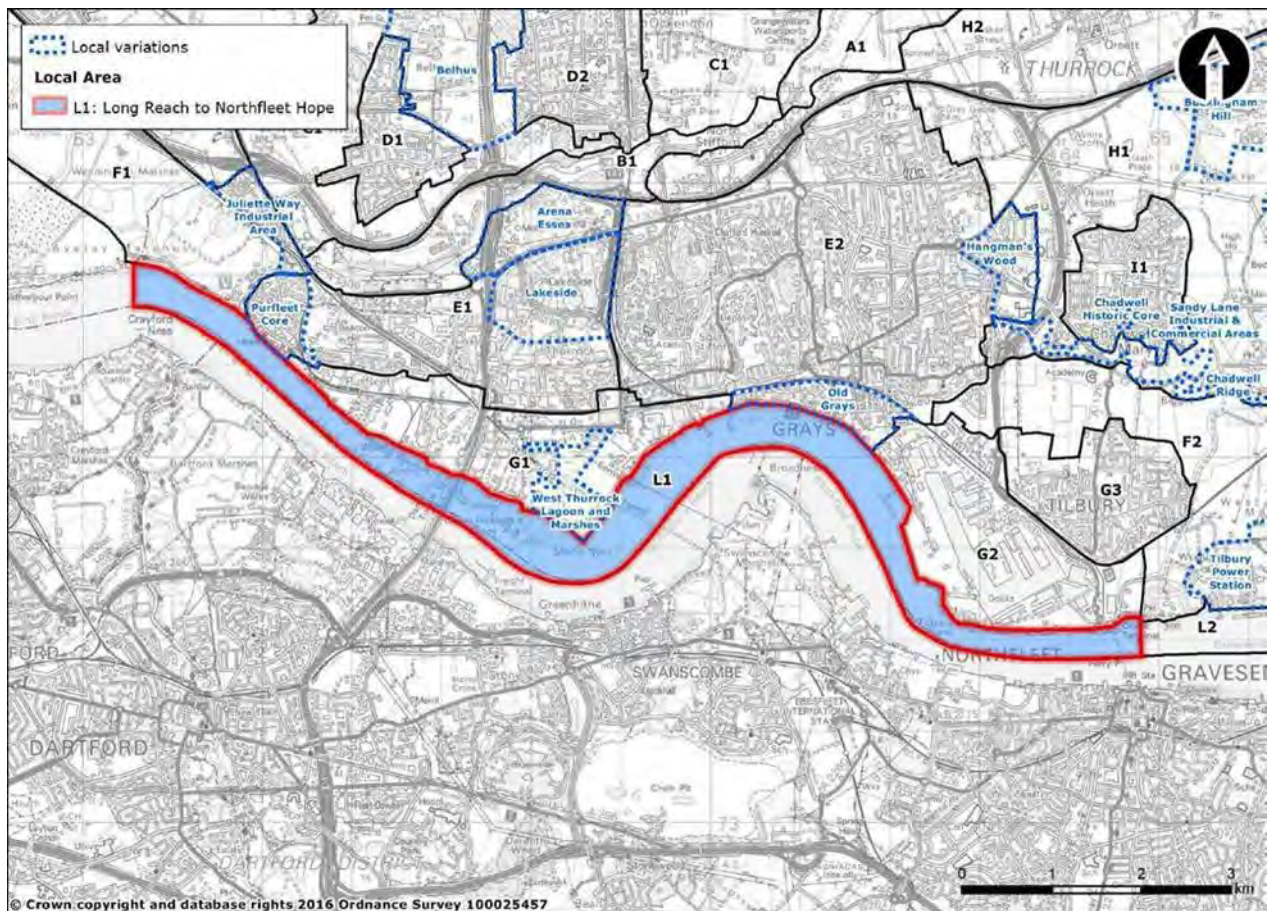
- Maintain the well-integrated and dispersed low density pattern of development – ensure any new development is well integrated into the landscape and uses traditional materials such as red brick, white render, weatherboarding and red tile roofs to conserve sense of place.
- Continue to provide recreational opportunities and opportunities to experience the long distance views over the lowlands – consider opportunities for open up new views (where this does not conflict with woodland conservation) and provide (low key) interpretation facilities.
- Maintain the strong sense of tranquillity and rurality by avoiding expansion of built development, avoiding widening or suburbanisation of narrow country lanes, and maintaining a wooded setting and local built styles and materials. Minimise the use of lighting to prevent light spill or glare, and ensure that property boundaries are rural in character as well as the buildings themselves.

LCT L: Local River Reaches



- L1.1 This landscape type comprises the River Thames within Thurrock, up to (approximately) the high water mark. It is characterised by a dramatic and changing tidal riverscape with river traffic and changing light reflected on the constantly moving water. The presence of industry along some parts of the riverside introduces angular machinery, buildings and dock activity and these contrast with the adjacent open and low-lying marshes. The river forms part of the wider 'Greater Thames Estuary' National Character Area 81 and the 'Thames Gateway' as defined in the South Essex Greengrid Strategy.
- L1.2 There are two character area associated with the 'Local River Reaches' character type in Thurrock:
- **LCA L1: Long Reach to North fleet Hope**
 - **LCA L2: Gravesend Reach to Sea Reach**

LCA L1: Long Reach to Northfleet Hope



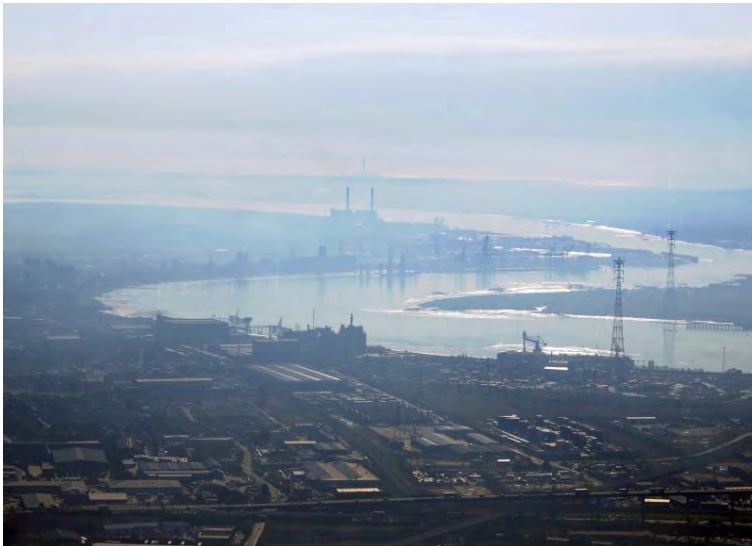
Location and Boundaries

- L1.3 The Langdon Higher Hills Character Area is situated in the north-east of Thurrock adjacent to the Borough of Basildon. The hills extend into Basildon as 'LCA14 Langdon Hills' as described in the Basildon Borough Landscape Character Assessment⁵). The western and southern boundary with LCA J1: Langdon Lower Hill Slopes roughly follows the 35m contour line, the point roughly at which there is an increase in steepness of topography.
- L1.4 Upstream the river adjoins the London Borough of Havering (Erith Reach) and Bexley (Crayford Ness). Although the administrative boundary is in the centre of the river, the river character continues seamlessly over the boundary into Dartford and Gravesham, with a similar pattern of undeveloped marshes and industrial development along the southern shoreline. The QEII Bridge links north and south banks. The town of Gravesend spans this and the adjacent **L2: Gravesend Reach** to Sea Reach character area.

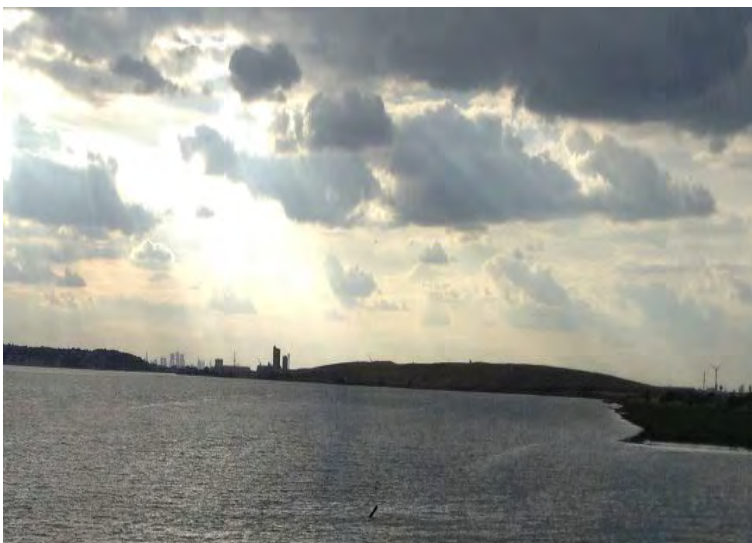
Photos



Old ship at Grays Beach –
(Copyright Ron Poulter).

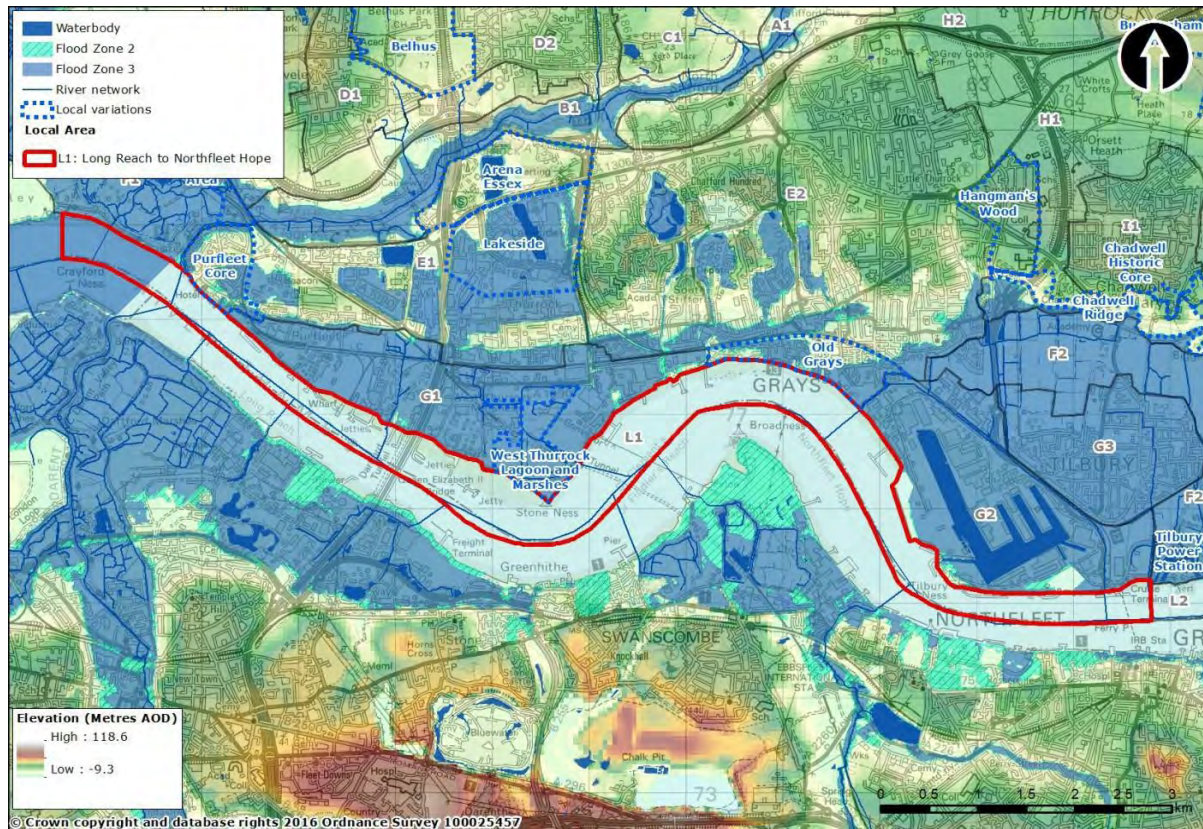


View towards London from the
riverside at Purfleet.

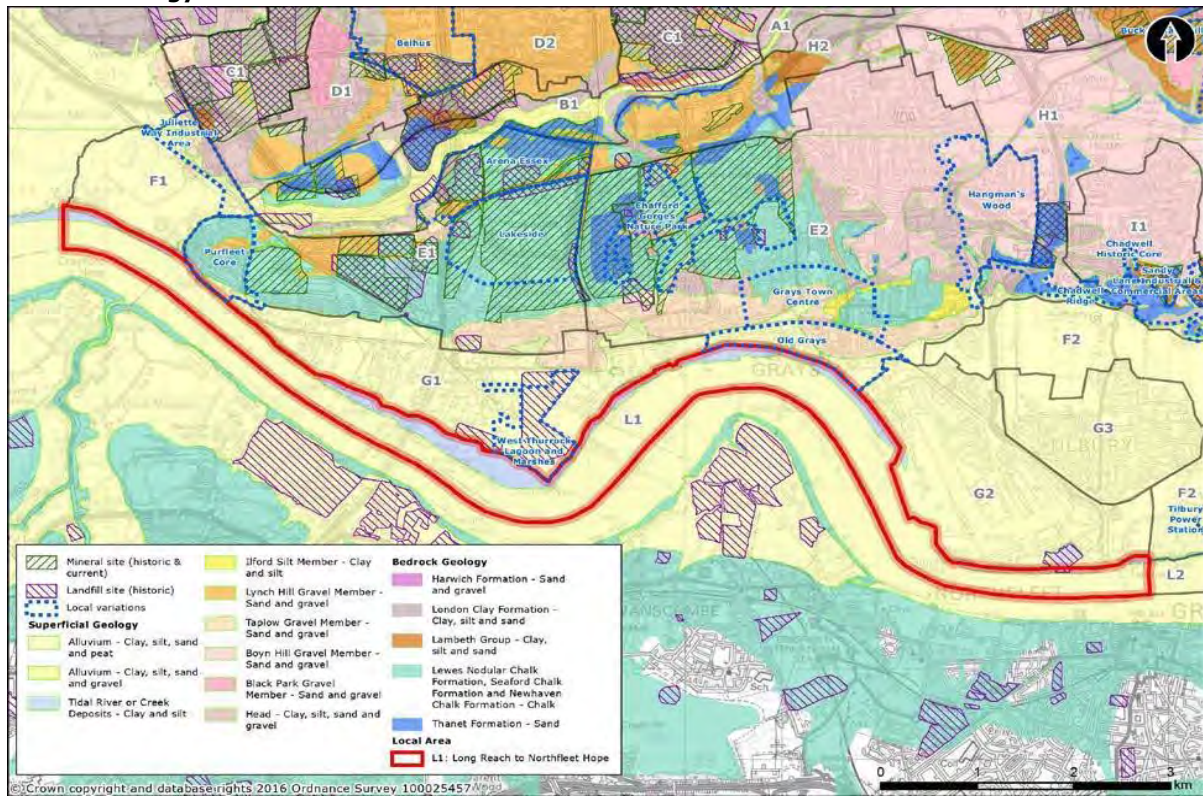


The meandering River Thames at
Grays (Copyright Ron Poulter).

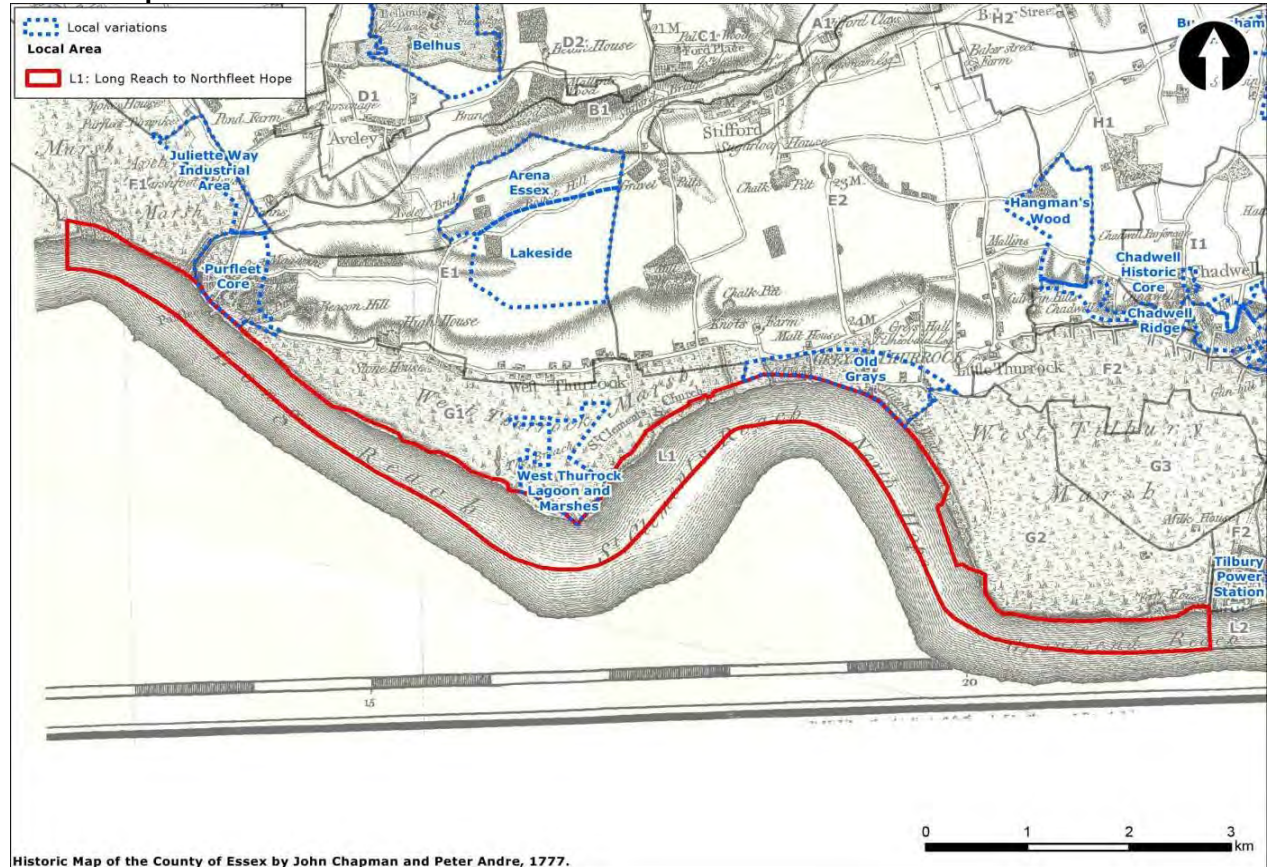
Topography and Drainage



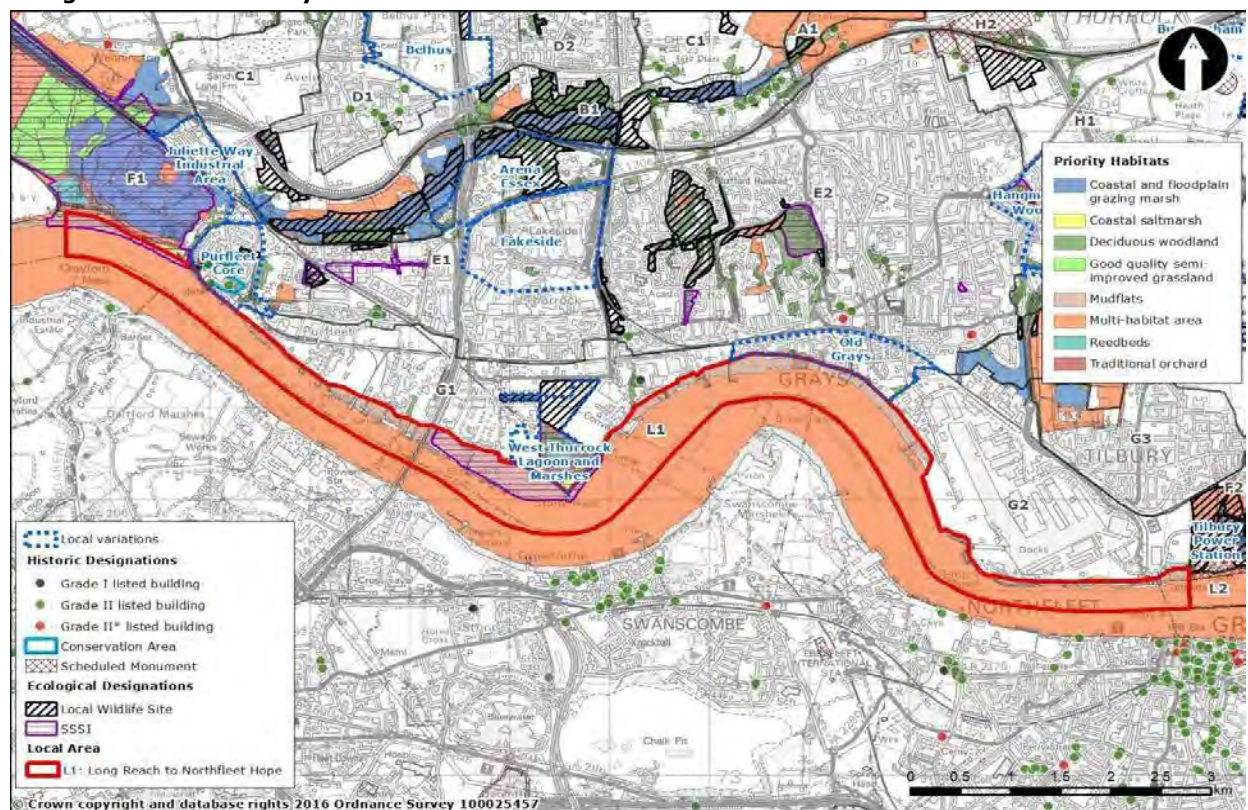
Surface Geology and Minerals



Historic Map 1777



Designations and Priority Habitats



Character Description

Overview

- L1.5 Numerous jetties, wharfs and piers punctuate the northern bank of the River Thames between Aveley and Tilbury, which is heavily industrialised for most of its length. A dramatic and changing riverscape of river traffic, angular machinery and buildings, dock activity and new major urban and leisure developments contrasts with the small areas of open and low-lying undeveloped marshes and intertidal mudflats.

Key Characteristics

- A wide, shallow river reach reaching 10m deep in the centre of the river channel and at Tilbury Docks.
- Thick deposits of marine alluvium revealed in intertidal mudflats which glisten and shimmer when exposed a low tide.
- A dynamic riverscape of erosion, transportation and deposition (the alignment of the river has changed over time) where natural processes have been heavily altered by human influences, particularly river walls.
- Areas of reclaimed marshes are protected behind river walls.
- Dredged river channel with busy traffic of commercial and recreational shipping visiting Tilbury port and London Cruise Terminal and numerous jetties, wharfs and piers.
- Industrial influences visible along the riverside including West Thurrock port.
- Small areas of undeveloped marshes at Aveley and West Thurrock are nationally important ecological habitats and remnants of the history of the area, linking it to the wider Essex and Thames estuary.
- Wintering waders and wildfowl bring activity to the marshes and riverscape.
- Historic riverside settlements of Purfleet and Grays with listed buildings, wharfs and military heritage including the gunpowder magazine at Purfleet, now Grade I listed and a Scheduled Monument.
- Strategic function of the Thames Gateway estuary linking London to the coast with defences at strategic points along the riverside e.g. the Purfleet Magazines?
- The area has provided transport of goods as well as a source of water for local breweries and cement industry.
- Dramatic riverscape of angular machinery, buildings and docks contrasts with the ancient areas of undeveloped marshland.
- QEII Bridge is a local landmark, visible from long distances along the river and inland. The power station on the southern bank of the Thames and the Lighthouse at Stone Ness are also landmarks.
- Open character, large scale and long views.
- Strong cultural associations of the River Thames as a conduit for settlers, traders and invaders.

Components that Contribute to Character

Landscape Component	Description
Geology	The underlying bedrock geology is chalk but it is overlain by thick deposits of marine alluvium. This is revealed in mudflats which become exposed at low tide.
Topography	The land along the river banks is flat to very gently sloping, and low lying. The river channel is approximately 600m wide and has been dredged to allow access for commercial and recreational shipping. Bathymetry ranges from 0m in the intertidal zone to 10m deep in the centre of the river channel and at Tilbury Docks.
Hydrology	The tidal estuary produces a dynamic riverscape of erosion, transportation and deposition but natural processes have been heavily altered by human influences, particularly river walls and the subsequent development on previous salt marshes.
Soils	n/a
Land Use	The riverside is mostly industrialised along its northern bank, with areas of settlement at Purfleet and Grays and small natural marshes at Aveley and West Thurrock. Industrial and port development includes the port at Tilbury, the London Cruise terminal, and wharfs, jetties and piers dotted along the length of the riverside.
Land Cover and Biodiversity	The whole of the character area lies within the Greater Thames Marshes Nature Improvement Area (NIA) ¹ , one of the best and most important places in the country for nature including breeding waders, invertebrates, wintering waterfowl, fish and marine mammals and water voles. The area adjacent to Aveley Marshes is an RSPB Reserve and part of the Inner Thames Marshes SSSI designation, important as the largest remaining expanse of wetland bordering the upper reaches of the Thames Estuary. Particularly of note is the variety of breeding birds, with wintering teal populations reaching levels of international importance ³⁷ , as well as nationally rare wetland plants and insects. West Thurrock Lagoon and Marshes is designated a SSSI, and is a nationally important site for wintering waders and wildfowl. It provides ideal habitat as a result of the combination of extensive intertidal mudflats together with a large and secure high tide roost. Stone Ness salt marsh is noted for the size and character of its high marsh plant community ³⁸ .
Settlement Pattern/Form	Although the area itself is devoid of built development the Thames – historically and to the present day – provides an important passage close to London for the transport of people and goods. As a result this part of the Thames is heavily settled on its banks, particularly on the Thurrock side. The towns of Grays (see LCA E2: Grays, Chafford Hundred & South Stifford) and Purfleet (see LCA E1: West Thurrock, Lakeside & Purfleet) developed with a close association to the river for transport of goods and, for Purfleet, the location of a military magazine. Following the Industrial Revolution, industry developed on reclaimed salt marshes and mining in nearby chalk and brick pits, giving rise to development and expansion of Grays and nearby Tilbury and West Thurrock. The Thames was used not only to transport goods (such as bricks and chalk mined nearby) but also as a source of water for local breweries and cement industry.
Building Style	n/a
Historic Landscape and Time Depth	Since prehistoric times both the alignment and the level of the river have changed. The alignment was shaped by successive ice ages. Gravel terraces in the estuary indicate earlier courses and the river level has risen relative to the land by several metres. The ancient flood plain remains buried and potential archaeological discoveries are preserved beneath the alluvium, preserving structural remains and environmental evidence of the estuary. Previously the salt marshes were used for agriculture, particularly grazing. However, the Industrial Revolution, building of the railways and development of heavy industry and mineral extraction in West Thurrock led to reclamation and development of much of the riverside. The Port of Tilbury opened in the late 19 th century, bringing in thousands of dock workers, leading to the development of the town of Tilbury.

³⁷ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001732.pdf

³⁸ http://www.english-nature.org.uk/citation/citation_photo/1006132.pdf
Thurrock Integrated Landscape Character Assessment 218

Landscape Component	Description
	During WWII a number of defences developed along the Thames. Remnants of this include the gunpowder magazine at Purfleet, now Grade I listed and a Scheduled Monument and home to the Purfleet Heritage and Military Centre. The riverside station (including floating landing stage) at Tilbury is a Grade II* listed structure. It was a railway station and baggage hall, ticket office and floating landing stage built in 1924 to designs by Sir Edwin Cooper in a neo- Georgian style. 'The Gull' light vessel is an old ship wreck berthed at Grays. She operated as part of the safe navigation service provided under the grant of a Royal Charter by Henry VIII in 1514 to a fraternity of mariners.
Cultural Associations	There are strong cultural, literary and artistic associations of the River Thames and the river has been a key influence on both the physical and cultural development of Thurrock as a conduit for settlers, traders and invaders. Samuel Pepys mentioned buying fish from local fishermen at the river at Grays and Gravesend in his diary on September 24th 1665³⁹. Rev John Newton was brought up locally and was nearly killed in a boating accident at Purfleet; later he wrote of his life experiences in the Hymn 'Amazing Grace'.
Scenic Qualities	Strong visual juxtapositions of wide open marshes and flats with adjacent industrial machinery create interesting scenic compositions.
Perceptual Qualities	Heavily used by commercial shipping traffic with oil tankers, container ships, bulk carriers and roll-on/ roll-off (ro-ro) ferries frequently in view. Industry creates a dramatic riverscape of angular machinery and buildings, dock activity. There are contrasts with the intertidal mudflats and areas of undeveloped marsh, which glisten and shimmer as the light falls on them, and the movement of flocks of overwintering birds on the mudflats. The moving water of the Thames and the flat expanse of the river and mudflats contrast with the huge vertical features of the industrial buildings and the QEII bridge.
Visual Character and Views	There are long distance views along the river in both directions, over the open river and adjacent open, flat mudflats and marshes. The waterfront at Grays enables panoramic views across and along the River Thames (the view from Gray's Beach is noted as a strategic view in Thurrock's Green grid Study).
Landmarks and Skylines	The Queen Elizabeth II Bridge, which provides the main crossing for the clockwise M25, is visually dominant. Lighthouse at Stone Ness, marked by a light on top of a red frame. Just outside Thurrock borough, to the west, Cold harbour Point is a local landmark, with its beacon used by ships navigating the Thames.
Landscape Function and Green Infrastructure	The river provides an important link between London and the coast and functions as a transport route as well as an important recreational, ecological and archaeological resource. Because of the proximity to London there has been longstanding use of the coastal area of Essex not only for holidays and recreation but also for industry and military purposes. The river also provides a recreation function – for example the London Loop long distance footpath and NCN 13 follows the riverside along the Wennington and Aveley Marshes, before terminating at Purfleet.

³⁹ http://www.thurrockgazette.co.uk/columnists/down_memory_lane/9949757.When_Samuel_Pepys_visited_Grays/
Thurrock Integrated Landscape Character Assessment

Character Evaluation

Landscape Quality/ Condition

- L1.6 This is a riverscape that has been heavily influenced by humans and its natural condition has been altered by built structures such as the riverside wall, jetties, wharves and buildings along the riverside as well as noise and other effects of river traffic.
- L1.7 See the adjacent character assessments for **F1, E1, G1, E2** and **G2** which consider the quality and condition of the adjacent riverside areas.

Past change

- L1.8 The draining of the marshes and industrial development at West Thurrock and Tilbury Docks has changed the character of the riverside from salt marshes to industrial development.

Key sensitivities and valued attributes

- L1.9 The value of some features is recognised through designations, such as parts of the riverside between High and low Water being designated as part of the Inner Thames Marshes SSSI and Purfleet waterfront being designated as a Conservation Area. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The natural and undeveloped character of the riverside marsh and mudflat landscapes which provide a setting to the River Thames and a distinctive sense of place, as well as providing strong historical continuity/ time depth and habitats for waders and wildfowl.
 - The historic riverside settlements of Purfleet and Grays that are valued for their sense of history and the interest of their historic buildings, wharfs and military heritage. Also the physical and visual links between these settlements and the river.
 - The riverside defences including the Purfleet gunpowder magazine which reflect the strategic function of the Thames Gateway estuary.
 - QEII Bridge which is valued as a landmark, visible from long distances along the river and inland.
 - The open character of the river which is valued in contrast to the heavily developed riverside, particularly to the north.
 - Strong cultural associations of the River Thames as a conduit for settlers, traders and invaders and links with onshore activities such as brewing and cement industry.

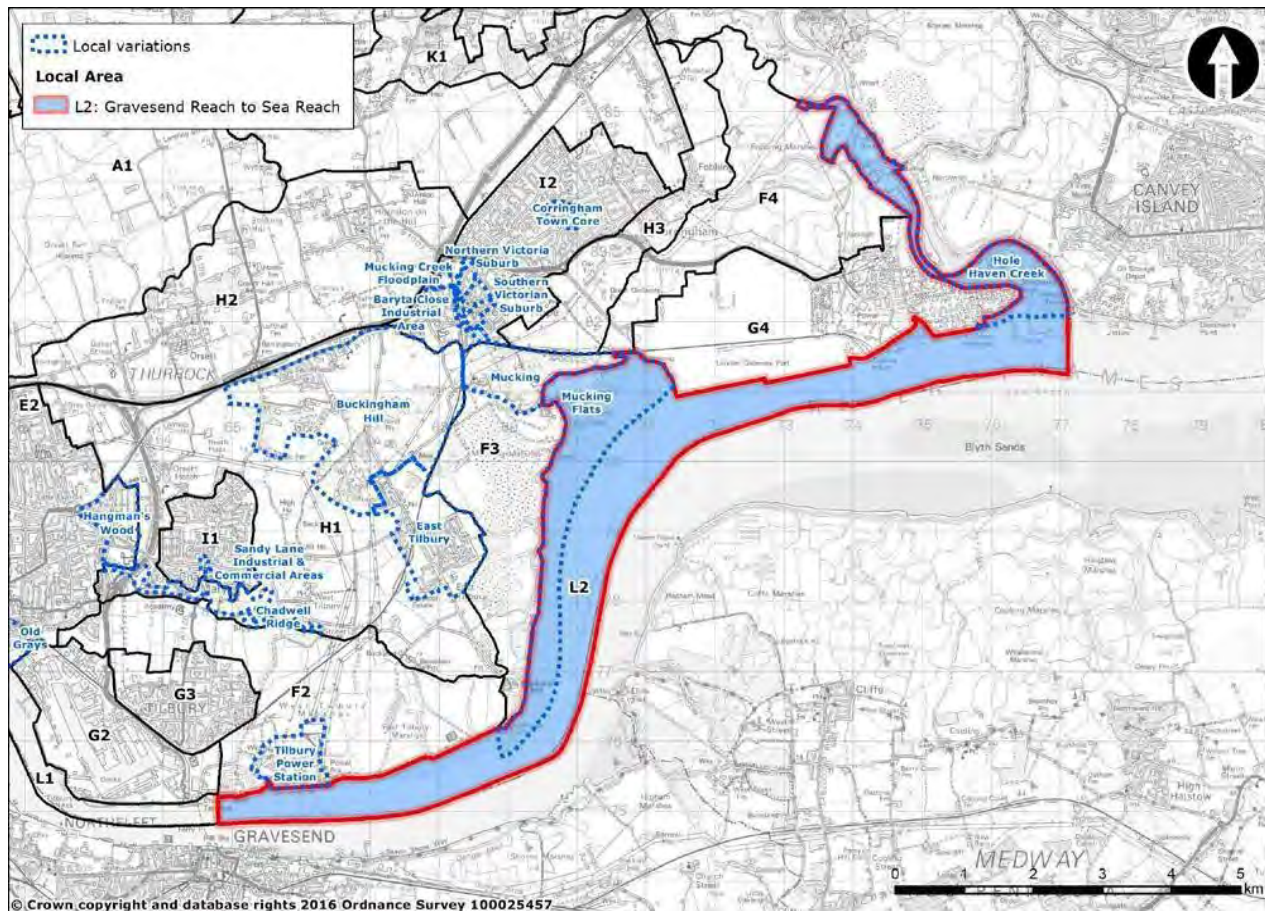
Vision

The vision for this character area is: a living and vibrant stretch of the River Thames but with naturalistic mudflats and marshes that forms part of a multi-functional system of river, marshland and estuary. Well-managed to balance the needs of a thriving industry and local economy as well as providing important green infrastructure including public access, wildlife and education.

Guidance to conserve and enhance character

- Maintain and extend the naturalistic mudflats, salt marsh and reclaimed grazing marsh that are valuable for biodiversity and recreation.
- Improve physical connections from urban areas to the marshland and the riverside. Maximise access along to the riverside east of Purfleet- create a continuous riverside journey.
- Improve visual links between urban areas and the foreshore/river.
- Promote leisure and tourism including ferry services.
- Promote education and learning opportunities of the estuary and marshes, for example by improving access and providing facilities and interpretation that highlight ecology and natural processes.
- Consider creation of new parks and visitor centres to promote local archaeological, historical and cultural value of the estuary, as well as its importance in military defence, industry and commerce, leisure and tourism.
- Ensure the QEII Bridge remains a landmark and maintain opportunities for views along and across the river, aiming to produce new opportunities in combination with the points above.
- Encourage naturalistic coastal management with added benefits of public access and maximising ecosystem services.
- Maintain areas of relative 'wildness' as an escape from the more developed parts of the Borough and ensure there is access to these.

LCA L2: Gravesend Reach to Sea Reach



Location and Boundaries

- L1.10 The Gravesend Reach to Sea Reach Character Area comprises the downstream part of the River Thames within Thurrock Borough. The riverside along this reach is less developed than LCA L1 and includes, West Tilbury Marshes, Mucking Flats and Marshes, London Gateway Port and Holehaven Creek. It also includes the prominent defences of Tilbury Fort and Coalhouse Fort. The western boundary line follows the adjoining boundary on land between the character areas of Tilbury Docks and Tilbury Marshes.
- L1.11 Although the administrative boundary is in the centre of the river, the river character continues seamlessly over the boundary into the districts of Gravesham and Medway in Kent, and is largely characterised by undeveloped marshes except for the town of Gravesend in the western end. Gravesend spans this and the adjacent **L1: Long Reach to North fleet Hope** character area. Downstream the river continues into Castle Point District towards Canvey Island and Southend on Sea on the northern riverside and towards the Hoo Peninsula in the Kent district of Medway on the southern riverside.

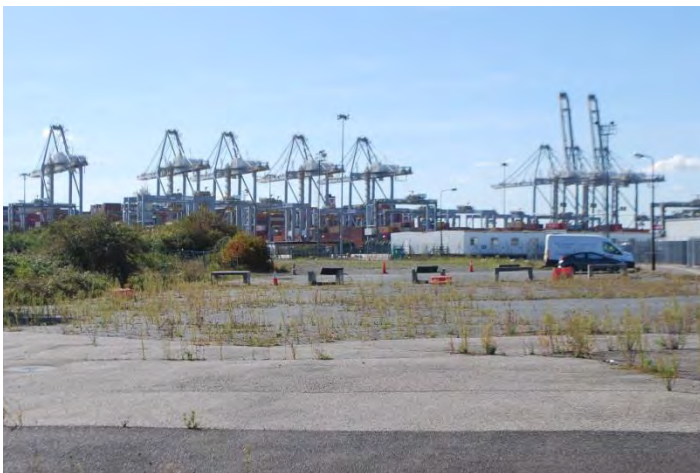
Photos



Coalhouse Fort, East Tilbury
(Copyright Ron Poulter).

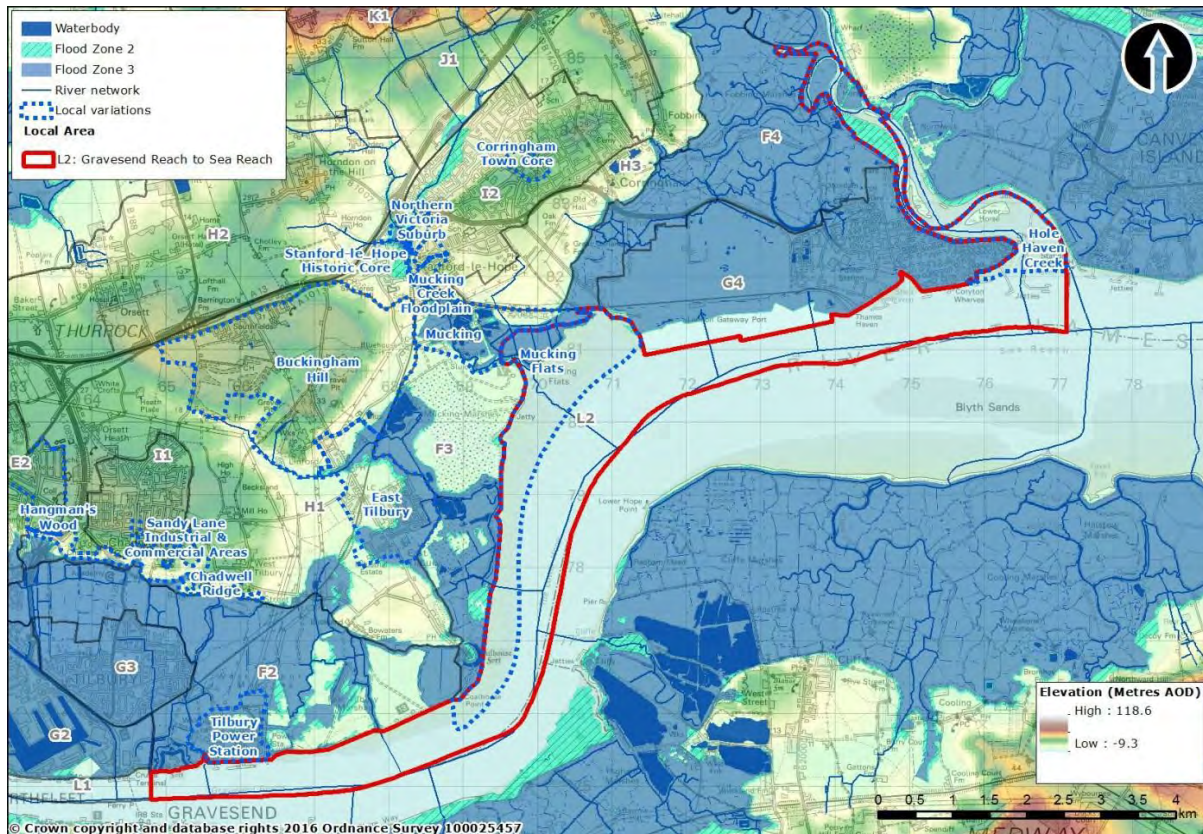


The Thames viewed from Mucking
Marshes.

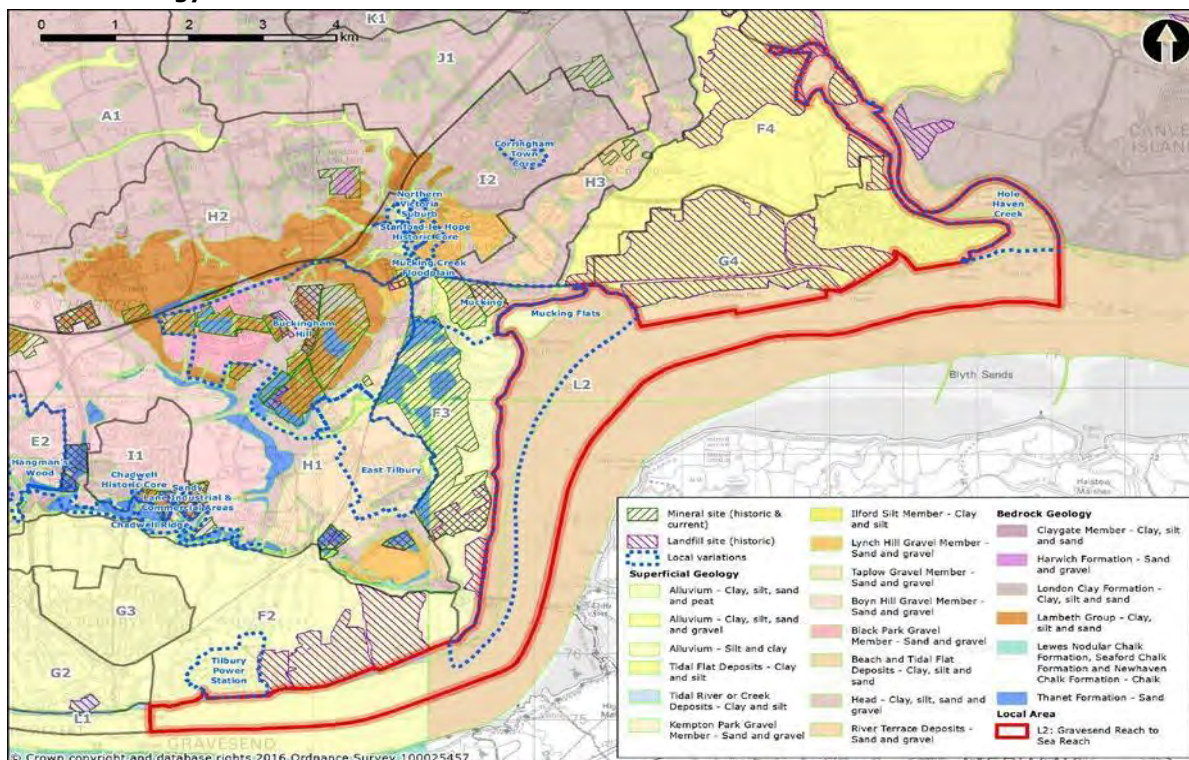


London Gateway Port adjacent to
the river.

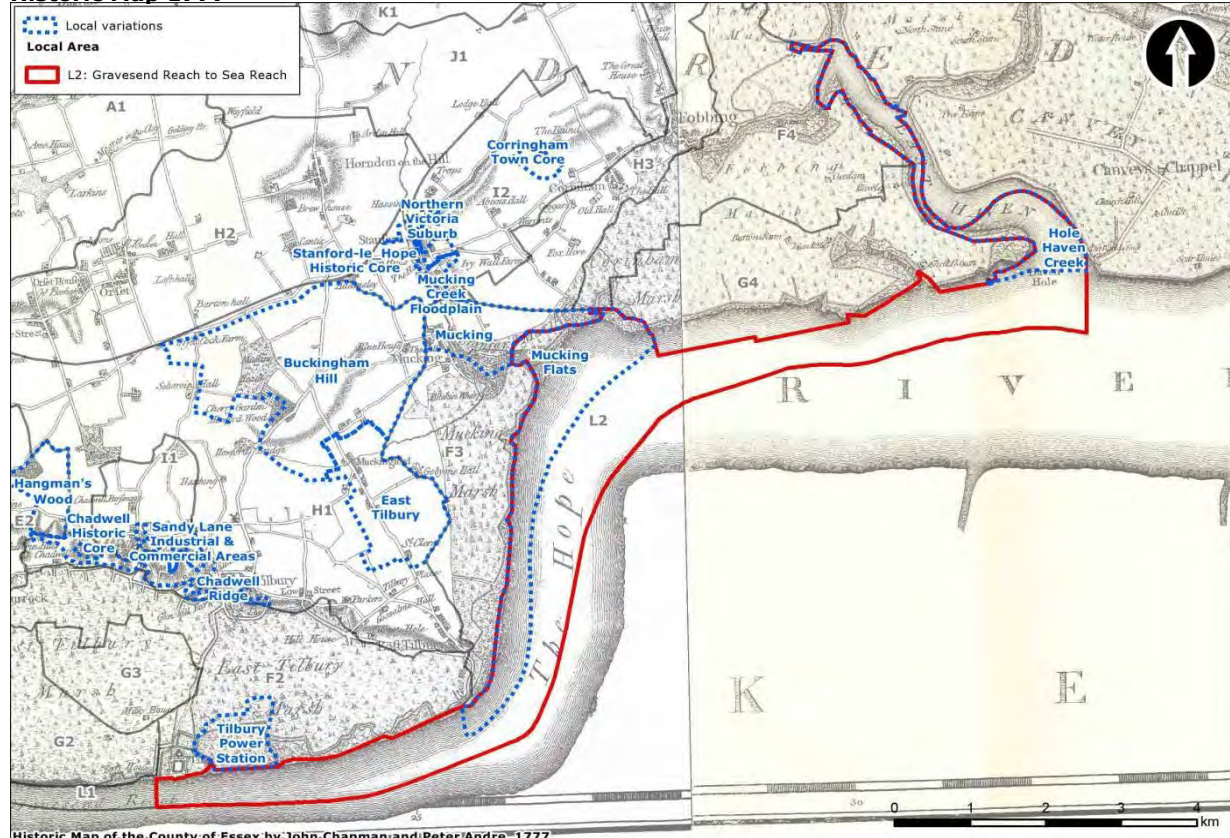
Topography and Drainage



Surface Geology and Minerals

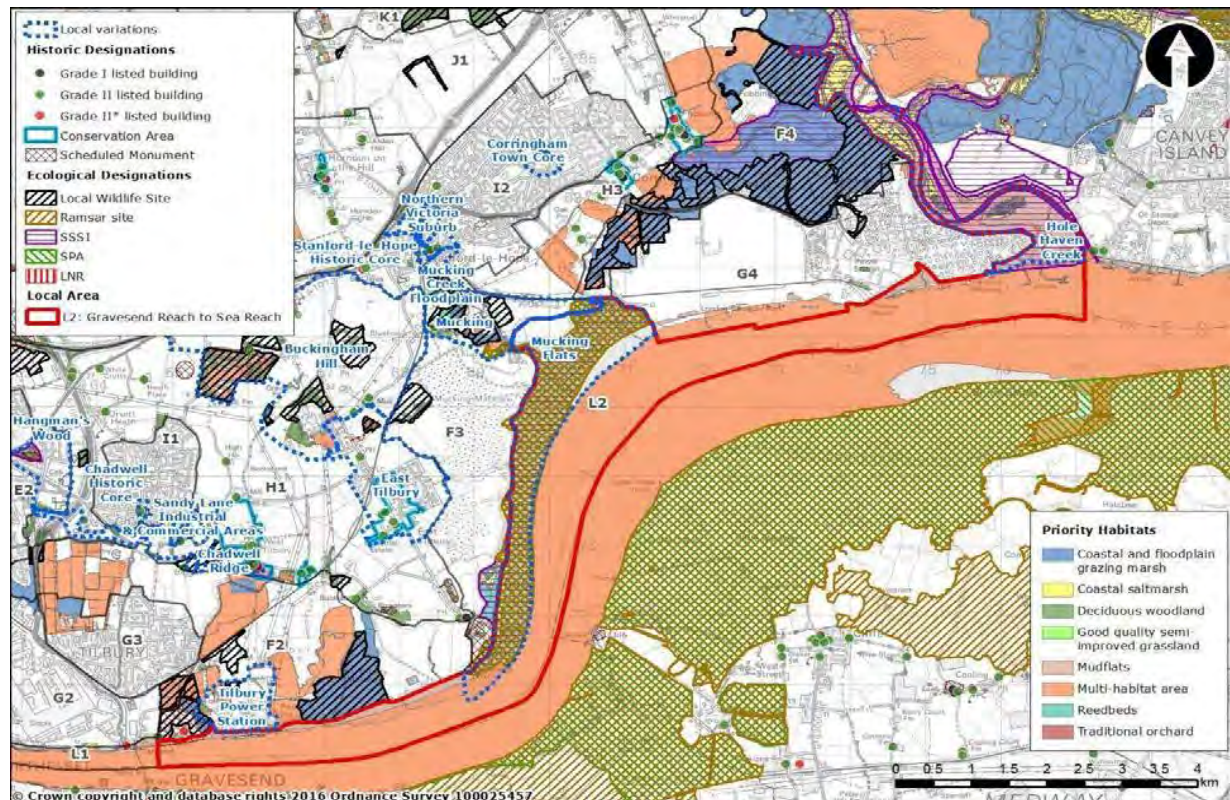


Historic Map 1777



Historic Map of the County of Essex, by John Chapman and Peter Andre, 1777.

Designations and Priority Habitats



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Character Description

Overview

- L1.12 A wide, shallow river reach that widens towards the east, supporting a dramatic and changing riverscape of river traffic, angular machinery and buildings, dock activity and new major urban and leisure developments contrasting with large areas of open and low-lying undeveloped marshes and intertidal mudflats with changing light reflected on the constantly moving water of the Thames.

Key Characteristics

- A wide, shallow river reach reaching 15m deep in the centre of the river channel and at London Gateway Port to allow for access by large container ships.
- Thick deposits of marine alluvium revealed in wide expanses of internationally important intertidal mudflats which glisten and shimmer when exposed at low tide.
- Areas of reclaimed marshes protected behind seawalls.
- Dredged river channel with busy traffic of commercial and recreational shipping and numerous jetties, wharfs and piers.
- Some significant areas of mudflats between the high and low water mark including Mucking Flats, and creeks which fill and empty with the tides, providing interesting temporal variation.
- Intertidal mudflats and adjacent marshes provide habitats of international importance as well as remnants of the history of the area, linking it to the wider Essex and Thames estuary.
- Strong historic and military connections visible through the presence of Tilbury Fort and Coalhouse Fort which are also landmarks.
- Contrasts between the wild and remote marshy riverside landscape and the industrial buildings at London Gateway Port.
- Strategic function of the Thames Gateway estuary linking London to the coast.
- Open character, large scale and long views including to QEII Bridge visible from long distances along the river and inland.
- Wintering waders and wildfowl bring activity to the marshes and riverscape.
- Strong cultural associations of the River Thames as a conduit for settlers, traders and invaders.

Components that Contribute to Character

Landscape Component	Description
Geology	The underlying bedrock geology is predominantly Mudstone and Sandstone, changing to chalk in the southern part of the area. This is overlain by thick deposits of alluvium which becomes much wider in this character area than to the west, reflecting the change in geology from the more resistant chalk to the more readily eroded material.
Topography	A wide, shallow river reach that widens towards the east. Dredged channel for shipping which has been locally dredged deeper at London Gateway Port to allow for access by large ships and containers. Bathymetry ranges from 0m in the intertidal zone to 15m deep in the centre of the river channel and at London Gateway Port.
Hydrology	The tides fill and empty the meandering Holehaven Creek and across the fringing marshes and mudflats, providing interesting temporal variation.
Soils	n/a
Land Use	The riverside is largely characterised by marshes, interspersed with areas of industry including a power station and industrial site at London Gateway Port. Tilbury Fort and Coalhouse Fort are now visitor attractions.
Land Cover and Biodiversity	The area around Mucking Flats is of international importance for bird species and large swathes of its semi-natural habitat are designated as SPA. It provides some of the best breeding sites for rare wetland birds in southern England. The whole of the character area lies within the Greater Thames Marshes Nature Improvement Area (NIA)⁴⁰. The Greater Thames Marshes is one of the best and most important places in the country for nature including breeding waders, invertebrates, wintering waterfowl, fish and marine mammals and water voles. Mucking Flats and Marshes comprise an extensive stretch of Thames mudflats and saltmarsh, together with sea wall grassland. Wintering wildfowl and waders reach both nationally and internationally important numbers on the mudflats, roosting and feeding on adjacent saltmarsh and disused silt lagoons⁴¹. There is also high invertebrate interest. It is designated a SSSI, Thames Estuary & Marshes Ramsar and SPA. Holehaven Creek SSSI supports nationally important numbers of wintering wading birds (blacktailed godwit⁴²).
Settlement Pattern/Form	The old village of East Tilbury overlooks the river by Coalhouse Fort but the remaining area of riverside is largely free from settlement.
Building Style	n/a
Historic Landscape and Time Depth	The river was also an important location for military defences. In 1539 long range guns were mounted in the blockhouses on the bank of the river. Close by is a tower, the top of which was a Second World War radar array. Tilbury Fort is a Baroque fort east from Tilbury Ferry terminal. Fronted by gun lines crossing their fire with the defences at Gravesend, it consists of an angular bastioned circuit, protected with double wet ditches and outworks⁴³. The defence of the Thames from attack was a priority in the 18th and 19th centuries. Coalhouse Fort is one of three Thames Side Forts that were designed to defend the Thames Estuary from Napoleonic attacks. The 20 guns at Coalhouse Fort could spit fire across the river, joining with the guns of Cliffe and Shornemead Forts on the south shore. Along the Thameside footpath between Tilbury and Coalhouse forts are two

⁴⁰ NIAs were pilot schemes funded by the Government between 2015-2015 to deliver conservation at a landscape scale. <http://greaterthamesmarshes.com/greater-thames-marshes/>. The NIA has long term plans to continue delivering projects including flood defence, water quality, engaging communities in science, and habitat creation and restoration.

⁴¹ http://www.english-nature.org.uk/citation/citation_photo/1006131.pdf

⁴² http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000467.pdf

⁴³ <https://shareweb.kent.gov.uk/Documents/leisure-and-culture/heritage/historic-defence-crossfire.pdf>

Landscape Component	Description
	Second World War anti-invasion pillboxes, probably dating from 1940. These were positioned to defend against an assault from the river⁴⁴. Previous oil refinery at Coryton and Shell haven.
Cultural Associations	There are strong cultural, literary and artistic associations of the River Thames and the river has been a key influence on both the physical and cultural development of Thurrock as a conduit for settlers, traders and invaders.
Scenic Qualities	Strong visual juxtapositions of wide open marshes and flats with adjacent industrial machinery create interesting scenic compositions.
Perceptual Qualities	The wide expanses of mudflats at Mucking Flats form remote, wilderness areas. The shorelines have a sense of openness, horizontality and long distant views. Marked contrast associated with the wild and remote low-lying marshy coastal landscape with uninterrupted, far-reaching views out across the Thames. The mudflats form glistening expanses and free from man-made intrusion big skies often dominate.
Visual Character and Views	An open character with expansive views where big skies often dominate.
Landmarks and Skylines	Distinctive landmarks of coastal military heritage including forts at Coalhouse and Tilbury lie on the northern bank of the river.
Landscape Function and Green Infrastructure	The river provides an important link between London and the coast and functions as a transport route as well as an important recreational, ecological and archaeological resource. Thames River and estuary has provided a national gateway port since the Roman Period. Thurrock Thameside Nature Park provides an important visitor attraction and educational facility. The area also provides public access to the river, such as at Coalhouse Fort.

Local Variations in Character

- L1.13 Localised areas which vary in character have been identified as follows (albeit they are united by the tidal river character):

Mucking Flats

- L1.14 The tidal flats to the east of Mucking Marshes provide a distinctive feature, especially when the river reveals the expanse of muds at low tide with a smooth texture. At high tide, the river comes right up to the edge of the marshes and therefore forms a readily identifiable area with a distinct character.

Holehaven Creek

- L1.15 Holehaven Creek provides a distinctive feature extending northwards from the river to the east of Fobbing Marshes. It is a distinctive feature that marks the eastern-most extent of Thurrock and provides a visual and physical link to the Essex Marshes further east – including Canvey Island.

Character Evaluation

Landscape Quality/ Condition

⁴⁴ <https://shareweb.kent.gov.uk/Documents/leisure-and-culture/heritage/historic-defence-crossfire.pdf>

- L1.16 This is a riverscape that has been heavily influenced by humans and its natural condition has been altered by built structures such as the river wall, jetties, wharves and buildings along the riverside as well as noise and other effects of river traffic. However, the areas around Mucking Flats and Holehaven Creek have more natural character and are managed to encourage habitats for wildlife.
- L1.17 See the adjacent character assessments for **F2**, **F3**, and **G4** which consider the quality and condition of the adjacent riverside areas.

Past change

- L1.18 The draining of the marshes and the rise and fall of industry has had an effect on this character area, including the former Tilbury Power Station and Shell haven Oil Refinery – now under redevelopment as London Gateway Port. The adjacent Thurrock Thameside Nature Park is a former landfill site.

Key sensitivities and valued attributes

- L1.19 The value of some parts of the river is recognised through designation, such as the Mucking mudflats being designated as a SSSI, SPA and Ramsar Site, some of the areas of undeveloped marsh being recognised as Local Wildlife Sites and Tilbury/ Coalhouse Forts being recognised as Scheduled Monuments. In addition, the following features and characteristics should be given particular consideration due to their particular local value or vulnerability to change:
- The natural and undeveloped character of the riverside marsh and mudflat landscapes which provide a strong historical continuity and time depth (providing historical links between Thurrock and the wider Thames Estuary) and important habitat for a number of bird, invertebrate and flora species.
 - Tilbury Fort and Coalhouse Fort, valued for their historic time depth, educational interest and role as landmarks on the riverside. Also the physical and visual links between these features and the river.
 - Views to the QEII bridge which is valued as a local landmark, visible from long distances along the river and inland.
 - The open character of the river and its undeveloped marshes which is valued in contrast to the heavily developed parts of the riverside.
 - The strong cultural associations of the River Thames as a conduit for settlers, traders and invaders.

Vision

The vision for this character area is: a living and vibrant stretch of the River Thames with naturalistic mudflats and marshes and a thriving London Gateway Port. A connected riverside landscape with strong local distinctiveness, historic and natural interest, and well-managed for public access, wildlife and education.

Guidance to conserve and enhance character

- Maintain and enhance the remote areas of riverside landscape – including the mudflats, salt marsh and reclaimed grazing marsh that are valuable for biodiversity and recreation.
- Improve physical connections from urban areas to the marshland and the riverside. Maximise access along to the riverside - create a continuous riverside journey.
- Improve visual links between the riverside and foreshore/river.

- Promote leisure and tourism including ferry services.
- Promote education and learning opportunities of the estuary and marshes, for example by improving access and providing facilities and interpretation that highlight ecology and natural processes.
- Consider creation of new parks and visitor centres to promote local archaeological, historical and cultural value of the estuary, as well as its importance in military defence, industry and commerce, leisure and tourism.
- Maintain opportunities for views along and across the river, aiming to produce new opportunities in combination with the points above. Particularly conserve views to Tilbury Fort and Coalhouse Fort.
- Ensure the management of areas of land around Tilbury Fort and Coalhouse Fort is sensitive to the historic significance and scenic quality of these assets.
- Encourage naturalistic coastal management with added benefits of public access and maximising ecosystem services.
- Maintain areas of relative 'wildness' as an escape from the more developed parts of the Borough and ensure there is access to these.

