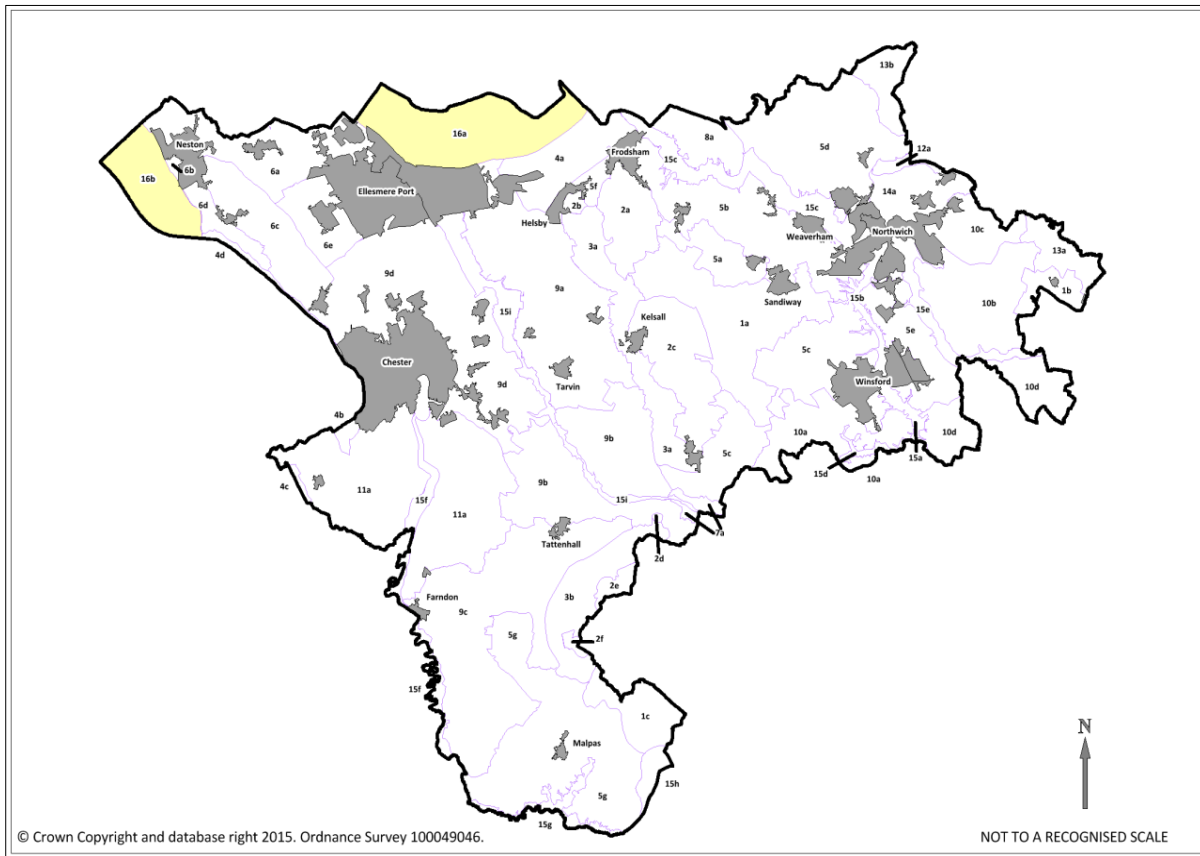


LCT 16: MUDFLATS AND SALTMARSH



General Description

This is a landscape character type of large tracts of intertidal mudflats and saltmarsh within the Dee and Mersey Estuaries which partially define the northern fringes of CWaC. Both are bird habitats of international importance. Estuary marsh within Cheshire is used for wildfowling and stock grazing. It has a very open aspect and due to spring tide flooding, trees are totally absent. These are flat, open areas which afford views of the estuarine landscape and beyond e.g. to the Clwydian Hills and Liverpool.

Visual Character

This is a dramatic, large scale landscape with long distance panoramic views extending across the vast expanse of both the Dee Estuary and River Mersey towards the far shores. At low tides the full extent of the mud flats and channels is visible from a few locations but most vantage points provide views over a green expanse of salt marsh with open water a considerable distance beyond. Urban development and massive industrial structures are visible on the shores of both character areas. Monolithic structures and chimneys serve as distinctive landmarks when viewed across an empty expanse of water and mudflats.

Physical Influences

Chester Pebble Beds and Kinnerton Sandstone provide the underlying solid geology. This is overlain by marine and alluvial deposition influenced by tidal and estuarine activity, which has led to the formation of saltmarsh and mudflats. Soils are calcareous sandy and alluvial gley soils which include finely divided marine shell fragments. It occurs at an average elevation of approximately 5m AOD.

Both estuaries provide habitats for internationally and nationally important numbers of waders and wildfowl as well as providing a staging post for migrating birds and are designated as SSSIs and also Special Protection Areas (SPA) with the Dee also a Special Area for Conservation (SAC). There is a rich diversity of waders and wildfowl found in the estuaries such as the teal, shelduck, oyster catcher and redshank.

Flora is generally restricted to cord grass (*Spartina angelica*) and other, native saltmarsh plants confined to a narrow strip along the shore in the Mersey Estuary but the Dee Estuary has a large expanse of saltmarsh.

Both estuaries have palaeo-environmental potential.

Cultural Influences

This is a character type that has grown and developed its form over time. For example, the sea wall at Parkgate delineates the former coast line before the rapid silting of the Dee Estuary following the canalisation of the River Dee in the 18th century.

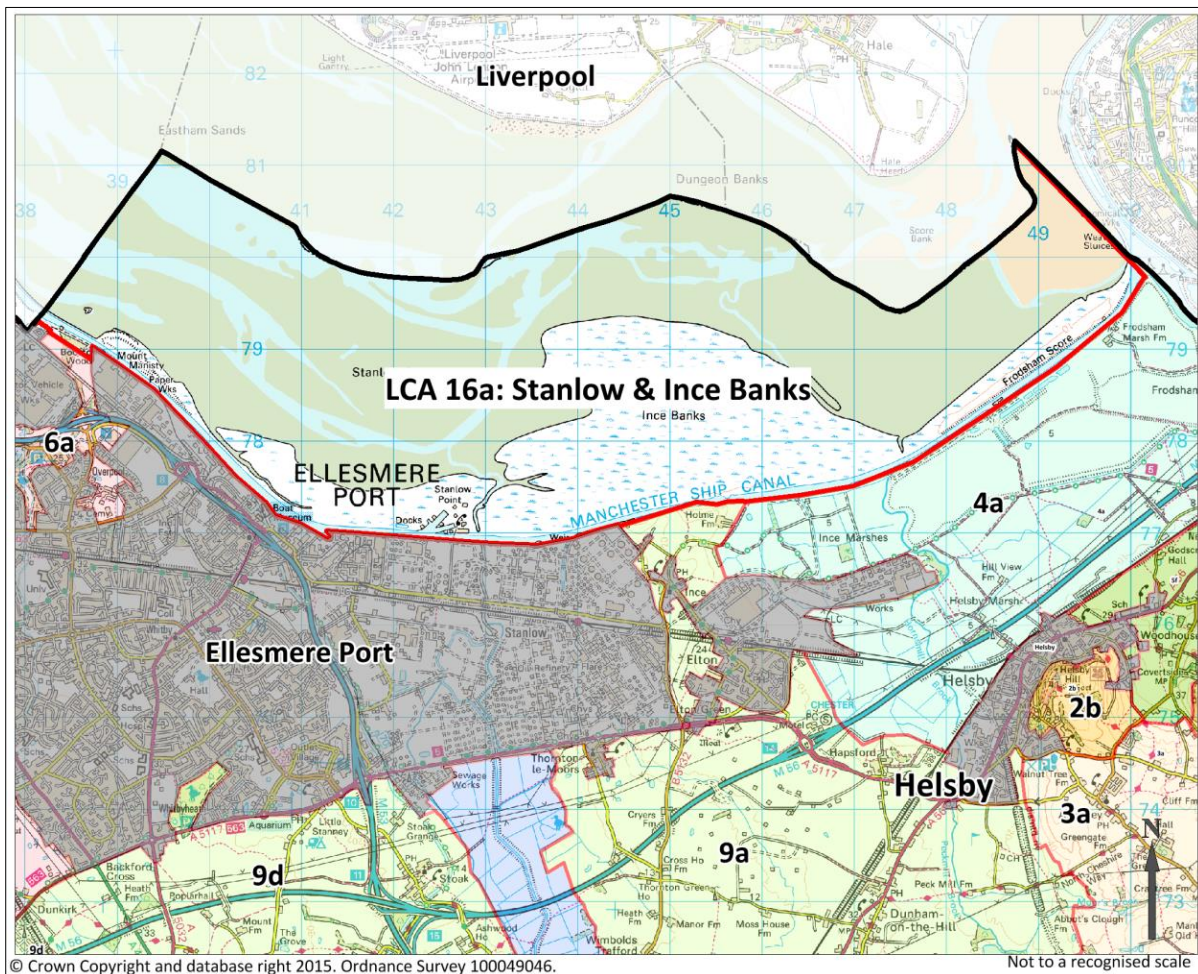
This is a peripheral, marginal landscape character type that has been utilised in the past because of those very reasons - a Cistercian monastery and monastic grange were founded in the medieval period on Stanlow Point. This isolated location suited the needs of the Cistercians who sought to remove themselves from the rest of society and to subsist on sheep rearing. It is also no coincidence that the Burton Marsh in the Dee Estuary was the site of a WWII bomb decoy, the purpose of which was to imitate settlement and cause attacking aircraft to mistake them as their targets. The southern end of the Dee Estuary across the border in Wales is still used by the military as a rifle range.

There are **two Landscape Character Areas** within LCT 16:

16a: *Stanlow and Ince banks*

16b: *Dee Estuary*

LCA 16a: Stanlow & Ince Banks



Location and Boundaries

Stanlow and Ince Banks landscape character area is an area of inter-tidal sand and mudflats and salt-marsh along the southern bank of the Mersey Estuary, and includes part of the Manchester Ship Canal. Its southern boundary is formed by an artificial bank which separates it from the Reclaimed Salt Marsh of the *Frodsham, Helsby & Lordship Marsh*. It extends beyond the administrative borough boundary into and along the Mersey Estuary.

Key Landscape Characteristics of LCA 16a: Stanlow and Ince Banks

- A flat, open and expansive landscape of mudflats, sandflats and saltmarsh alongside the Mersey Estuary
- Strong interconnection and intervisibility with LCT 4 *Drained Marsh* to the south
- A naturalistic landscape with winding channels forming intricate patterns in the salt marsh
- Excavation of the Manchester Ship Canal in the later 19th century resulted in the creation of the Stanlow and Ince Banks, an area of embanked land at the southern edge of the mudflats
- A dynamic landscape composed of rising and falling tides, constantly shifting sediments and flocks of over-wintering birds
- Recognised as an internationally important site for wildfowl (protected by SSSI, SPA and Ramsar designations)
- A remote and peaceful landscape relatively undisturbed by humans and of international importance for nature conservation. The area of saltmarsh between Stanlow Point in the west and Frodsham Score in the east is grazed
- No public access to this remote area, although there is a landing stage on the canal at Frodsham Score to the east of the area
- Devoid of settlement
- Long, uninterrupted views and large skies
- Industrial works at Ince Marshes, Halton and Rocksavage form a striking backdrop
- Panoramic views across the estuary from Helsby Hill (above Helsby) and Beacon Hill (above Frodsham)

Key Landscape Sensitivities, Qualities and Value

Natural / Physical

- Extensive area of open inter-tidal sand and mudflats and salt-marsh;
- Stanlow and Ince Banks lie above a solid bedrock of Chester Pebble Beds, the erosional base of the Sherwood Sandstones;
- Extensive alluvial deposits of sand, silt and clay left by the Mersey River give rise to the characteristics the landscape of Stanlow and Ince Banks and its wider setting - the Mersey Estuary;
- Internationally important, SPA and Ramsar overwintering habitats and staging post for migrating birds in spring and autumn;
- In winter the estuary supports large numbers of wildfowl and waders which feed on the rich invertebrate fauna of the inter-tidal sediments as well as plants and seeds from the salt-marsh and adjacent agricultural land;
- Palaeo-environmental potential of the estuary;
- Atypical canal-side, linear ridge of raised embankment at Mount Manisty with some scrub and self set pioneer woodland evident north of Ellesmere Port.

Cultural / Heritage / Historic

- The Manchester Ship Canal forms the southern boundary of the area, constructed in the later 19th century to connect Manchester directly to the sea;
- Excavation of the canal resulted in the creation of Stanlow and Ince Banks, embanked land at the southern edge of the mudflats;
- Very limited public access;
- Site of former Cistercian abbey at Stanlow Point is a Scheduled Monument.

Built Development and Settlement Pattern

- Total absence of settlement;
- Some very limited infrastructure in place in relation to the navigation and management of the ship canal.

Perceptual / Visual

- The flat landform and long views contribute to the perception of a large scale, exposed landscape;
- The natural patterns of sand and mud create an organic pattern that contributes to the sense of naturalness associated with this remote and windswept landscape;
- The flat, low-lying area in itself is not visually prominent and it does not have a prominent skyline;
- The flat open nature of the landscape facilitates extensive views across the flats and estuary;
- Tides and light on the wet and dry mosaic of land and sea provide shifting visual appearance of the Banks;
- The embankment at Frodsham Score facilitates views over the Estuary. There are also panoramic views across the estuary from *Helsby Hill Sandstone Ridge* (above Helsby) and Beacon Hill (above Frodsham) on the *Frodsham Sandstone Ridge*;
- The open character means there is little opportunity for screening any large scale elements or for mitigating visual impact without the mitigation measures in themselves being highly visible - making it a visually sensitive landscape.
- The absence of settlement and lack of public access means there are few sensitive visual receptors within the area. However, adjacent landscapes overlook the estuary.

Landscape Condition

The Mersey Estuary is highly dynamic and there are continuous shifts in the transport and distribution of sediments and therefore the development of habitats, but visual balance of features remains similar.

CWaC Local Plan policies with an influence on the character of LCA 16a: *Stanlow and Ince Banks*:

- Countryside;
- Natural heritage sites of international, national, regional and/or local significance;
- Nationally designated heritage assets (on Historic England's National Heritage List for England) and locally significant heritage assets;
- Flood risk and water management.

Forces for Landscape Change

Past change

- A highly dynamic landscape where natural tidal forces and some ship canal management alters the locally detailed, visual mosaic of the Banks, but maintain their balance of features.

Potential future change / key issues affecting LCA 16a: *Stanlow and Ince Banks*

- Activities or developments in adjacent areas could result in siltation and deposition on inter-tidal habitats;
- Activities or developments in adjacent areas could impact on the visual amenity of the LCA;
- Recreational use of the landscape and surrounds could result in physical damage through abrasion caused by the wash from boats or by trampling from walkers;
- Industrial, transport and recreational activities in adjacent areas may result in noise and visual disturbance;
- In this heavily industrialised area, pollution arising upstream, or seepage from old landfill sites, could adversely affect the habitats of the Banks;
- The large numbers of outfalls around the Mersey Estuary could result in nutrient and organic loading in the Estuary that may affect habitats of the Stanlow and Ince Banks;
- Hydro dynamic changes in the estuaries will lead to changes in the pattern of erosion and deposition;
- Climate change – sandbanks, mudflats and salt marshes are vulnerable to sea level rise due to increased storm frequency, particularly where they lie in front of flood defences;
- Susceptible to artificial enrichment by sewage pollution, discharges from agriculture, industry and urban areas;
- Alien species.

Overall Landscape Management Strategy for LCA 16a: Stanlow & Ince Banks

The overall management objective for this landscape should be to **conserve** the naturalistic and dynamic qualities of this landscape, relatively undisturbed by humans.

Landscape Management Guidelines

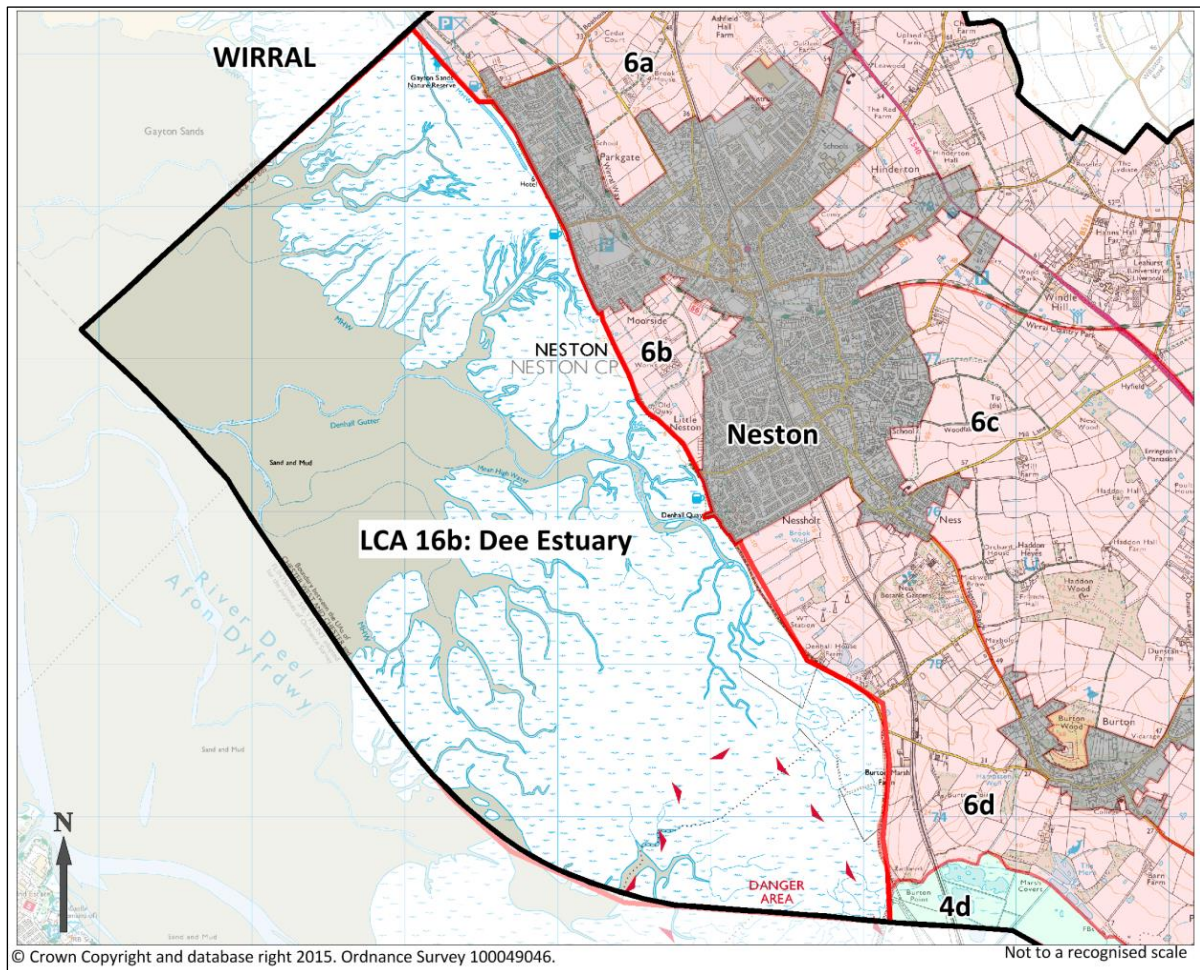
1. Conserve and enhance coastal and estuarine habitats.
2. Monitor the area to ensure activities or developments in adjacent areas do not result in siltation and deposition on the inter-tidal habitats of the Frodsham Score.
3. Ensure abrasion caused by the wash from boats does not affect the inter-tidal habitats and salt-marsh in this area.
4. Ensure pollution arising upstream, or seepage from old landfill sites, does not adversely affect the habitats of the Stanlow and Ince Banks.
5. Minimise nutrient and organic loading in the Estuary upstream.
6. Conserve the remote character of the area.

Built Development Guidelines

1. Conserve the open, undeveloped character of this area.
2. Minimise noise and visual disturbance arising from industrial, transport and recreational activities in adjacent areas.



LCA 16b: Dee Estuary



Location and Boundaries

The **Dee Estuary** landscape character area is an area of inter-tidal mudflats and salt-marsh along the western coastline of the Wirral peninsular. Its eastern boundary is sometimes defined by embankment and walling where it meets permanently dry land at high tide level. It extends northwards beyond the administrative borough boundary into The Wirral.

Key Landscape Characteristics of LCA 16b: Dee Estuary

- A flat, open and expansive landscape of mudflats, and saltmarsh alongside the Dee Estuary
- A naturalistic landscape with winding channels forming intricate patterns in the salt marsh
- A dynamic landscape composed of rising and falling tides, constantly shifting sediments and flocks of over-wintering birds
- Recognised as an internationally important site for wildfowl (protected by SSSI, SPA, SAC and Ramsar designations). It is largely owned and managed by the RSPB
- A remote and peaceful landscape relatively undisturbed by humans and of international importance for nature conservation
- Public access is largely limited to the edge of the area (access is not actively encouraged by the RSPB; MOD firing range at the southern end)
- Devoid of settlement
- Large skies with long, uninterrupted views out to sea and to the Welsh hills
- Industrial works at Shotton and the Dee Bridge form a striking backdrop to the south
- Inter-tidal range has decreased historically following the canalisation of the Lower Dee with silting of the estuary, with only the highest tides inundating the whole marsh
- Historic port and seaside resort of Parkgate.

Key Landscape Sensitivities, Qualities and Value

Natural / Physical

- Extensive area of open inter-tidal sand and mudflats and salt-marsh;
- Extensive alluvial deposits of sand, silt and clay left by the River Dee give rise to the distinctive characteristics of the landscape of the Dee Estuary;
- Extensive, complex system of gullies and streams emptying to the Dee from the eastern edge of the area;
- Internationally important, SPA, SAC and Ramsar overwintering habitats and staging post for migrating birds in spring and autumn;
- Particularly important for populations of black-tailed godwit, grey plover, oystercatcher, curlew, pintail, teal, shelduck and redshank;
- In winter the estuary supports large numbers of wildfowl and waders which feed on the rich invertebrate fauna of the inter-tidal sediments as well as plants and seeds from the salt-marsh and adjacent agricultural land;
- Visible succession of pioneer vegetation colonizing the mudflats through to lower, middle and upper saltmarsh and on to brackish and freshwater transitions with reed beds to the top of the shore;
- Palaeo-environmental potential of the estuary;
- Landscape type extends to the north into Wirral and to the south and west into north Wales.

Cultural / Heritage / Historic

- Historic trading port and ferry crossing associations at Parkgate and Neston;
- Canalisation of the lower Dee has influenced an increased rate of land reclamation from the estuary;
- Historically, Parkgate was an important resort in the 18th century for sea bathing;
- Public access essentially limited to the edge of the area;
- MOD live firing range to the southern end of the LCA restricts access here;

- Significant built heritage sites lie immediately beyond and along the landward boundary but outside the LCA.

Built Development and Settlement Pattern

- Total absence of settlement;
- Some limited historic infrastructure in place in relation the sea wall at Parkgate.

Perceptual / Visual

- The flat open landform and long views contribute to the perception of a large scale, exposed landscape;
- The natural patterns of sand, mud, gullies, channels and vegetation successions create an organic pattern that contribute to the sense of naturalness associated with this remote and windswept landscape;
- Abrupt transition from landward side LCAs to the mudflats and estuary;
- This is a flat, open low-lying area with extensive views to the distant seaward horizon and closer, prominent and dramatic Welsh hills;
- Tides and natural light on the wet and dry mosaic of land and sea provide shifting visual appearance of the estuary mudflats;
- The sloping landscape of landward LCAs (Wirral, Neston, Burton to Shotwick - amongst others) afford extensive views into and across the area;
- The open character means there is little opportunity for screening any large scale elements or for mitigating visual impact without the mitigation measures in themselves being highly visible - making it a visually sensitive landscape.

Landscape Condition

The **Dee Estuary** is highly dynamic and there are continuous shifts in the transport and distribution of sediments and dependent development of habitats, but the visual balance of features remains similar and in good condition.

CWac Local Plan policies with an influence on the character of LCA 16b: *Dee Estuary*:

- Countryside;
- Natural heritage sites of international, national, regional and/or local significance;
- Flood risk and water management.

Forces for Landscape Change

Past change

- A highly dynamic landscape where natural tidal forces and navigation management in the River Dee alters the locally detailed, visual mosaic of the mudflats, but maintain their balance of features;
- Loss of the beach at Parkgate through introduction and colonisation of cord grass in the 19th century.

Potential future change / key issues affecting LCA 16b: *Dee Estuary*

- Salt marsh continues to accrete;
- Activities or developments in adjacent areas could result in siltation and deposition on inter-tidal habitats;
- Recreational use of the landscape and surrounds could result in physical damage through abrasion caused by the wash from boats or by trampling from walkers;
- Industrial, transport and recreational activities in adjacent areas may result in noise and visual disturbance;
- In this heavily industrialised area, pollution arising upstream could adversely affect the habitats of the Banks;
- The large numbers of outfalls around the Dee Estuary could result in nutrient and organic loading in the estuary that may affect habitats;
- Climate change – sandbanks, mudflats and salt marshes are vulnerable to sea level rise due to increased storm frequency, particularly where they lie in front of flood defences.

Overall Landscape Management Strategy for LCA 16b: Dee Estuary

The overall management objective for this landscape should be to **conserve** the naturalistic and dynamic qualities of this landscape, relatively undisturbed by human activity.

Landscape Management Guidelines

1. Conserve and enhance coastal and estuarine habitats.
2. Monitor the area to ensure activities or developments in adjacent areas do not result in siltation and deposition on the inter-tidal habitats of the Dee Estuary.
3. Ensure abrasion caused by the wash from boats or by trampling from walkers does not affect the inter-tidal habitats and salt-marsh in this area.
4. Ensure pollution arising upstream does not adversely affect the habitats of the Dee Estuary.
5. Minimise nutrient and organic loading in the Dee Estuary upstream.

Built Development Guidelines

1. Conserve the open, undeveloped character of this area.
2. Minimise noise and visual disturbance arising from industrial, transport and recreational activities in adjacent areas.

