

Tees Lowlands



Key Characteristics

- A broad lowlying plain of gently undulating, predominantly arable, farmland with wide views to distant hills.
- Meandering, slow-moving river Tees flows through the heart of the area dividing the lowlands to north and south.
- Contrast of quiet rural areas with extensive urban and industrial development concentrated along the lower reaches of the Tees, the estuary and coast.
- Large-scale chemical and oil refining works, dock facilities and other heavy plants along the Tees estuary form a distinctive skyline by day and night.
- Overhead transmission lines and pylons, motorway corridors, railway lines and other infrastructure elements are widespread features.
- Woodland cover is generally sparse but with local variation such as at Skerne Carr, on steep banks of the middle reaches of the Tees, and to parkland and managed estates.
- Distinctive areas of peaty fenland flatts and carrs within the Skerne lowlands. Extensive areas of mud flats, saltmarsh wetlands and dunes at mouth of the river Tees which support valuable wildlife habitats.
- Minor valleys and linear strips of open land extend as 'green corridors' from rural farmland into the heart of the Teesside conurbation.

Landscape Character

The Tees Lowlands form a broad, low-lying plain framed by the Cleveland Hills to the south-east, by the Pennines Fringes to the west and merging in to the Durham Magnesian Limestone Plateau to the north. To the south of the river Tees, low hills form a more subtle transition into the Vale of Mowbray beyond. The slow-moving river Tees meanders through the heart of the area, dividing the lowlands to north and south. The whole area

is gently undulating or nearly flat, much of it below 30 m AOD, and very broad in scale, with wide views to distant hills.

The Teesside conurbation forms an extensive area of urban and industrial development which spreads around the margins of the Tees estuary as an almost continuous built-up area from Redcar to Billingham, with Hartlepool as a discrete settlement to the north. Minor valleys and open strips of land form 'green corridors' linking rural farmland into the heart of the Teesside conurbation. High-rise buildings, large-scale chemical and oil refining works, dock-side container terminals, a power station and other installations, all clustered on land reclaimed from the estuary at Teesmouth, form a distinctive and dramatic skyline which is highly visible across this low-lying landscape by day and night.



Rich arable land on Morton Flatts with Roseberry Topping in the distance.

MIKE KIPPLING

This extensive area of industry is starkly juxtaposed with the natural elements of the Tees estuary. Areas of open water, mud flat, salt marsh and meadow, including Seal Sands and the Cowpen Marshes, survive in amongst the industrial installations and are protected as habitats of outstanding importance for birds as well as offering an important archaeological resource.



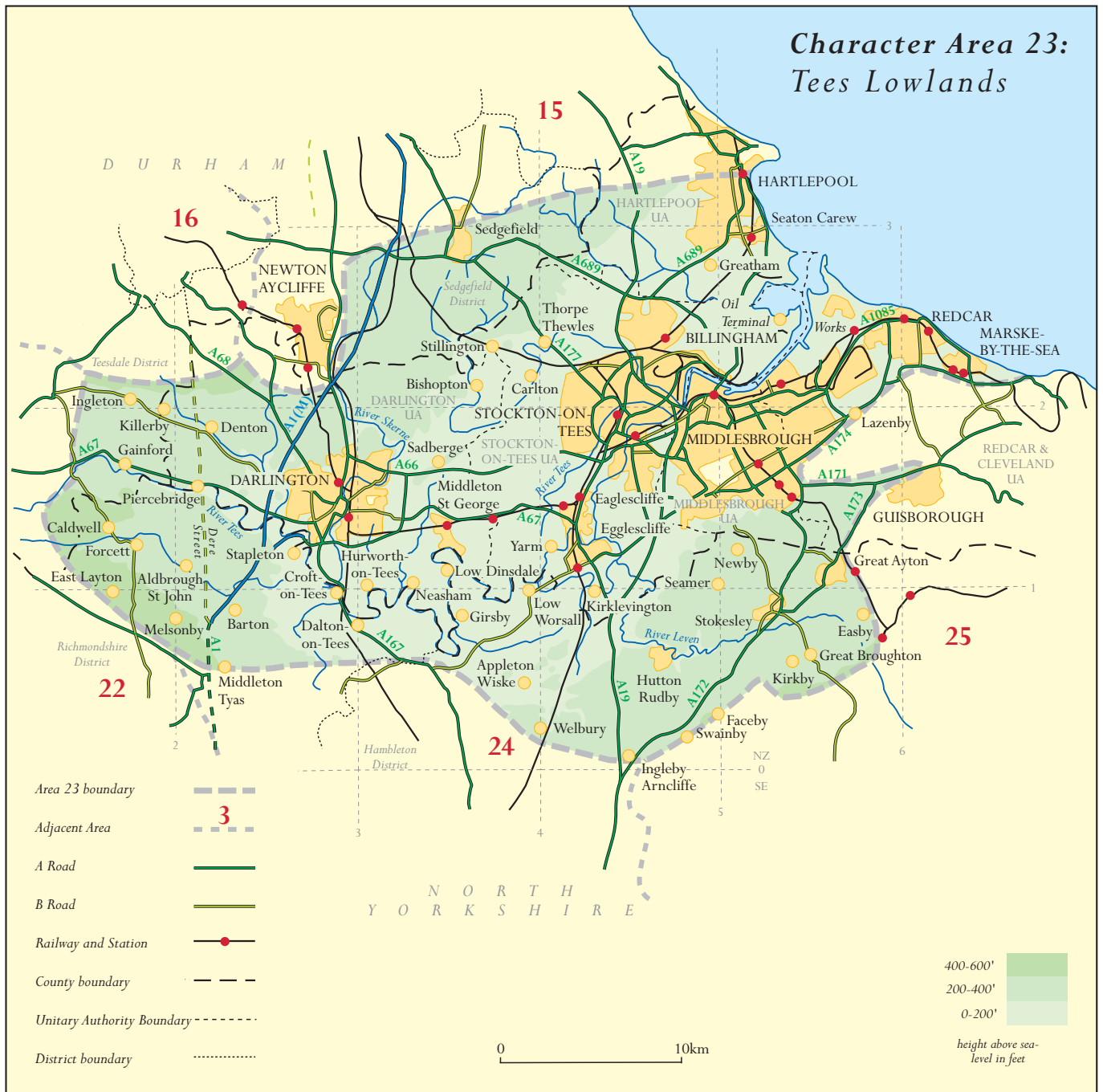


MIKE KIPPLING

Piercebridge was the site of an important Roman fort which guarded the strategic crossing point of Dere Street over the Tees.

West of Teesside, the Tees Lowlands extend as a broad area of gently undulating, arable farmland, large in scale, sparsely wooded and open, before reaching Darlington, another major industrial town. The land drops gently down to the river Tees which is only made visible by the willows growing along its banks. There are few hedgerow trees, ash and sycamore and only occasional blocks of farm woodland. Unspoilt villages lie close to the Tees, at the 'blind' ends of meandering minor roads, for there are few bridging points along the middle reaches of the valley. This is a rural landscape with a few scattered small villages and farmsteads and only the presence of pylons to remind one of the proximity of a major urban and industrial complex. Views of the Cleveland hills to the south.

To the north of Billingham the land rises gently and is more undulating. Permanent pastures and leys are more frequent, with grazing sheep and cattle, and with stretches



of semi-natural woodland on thin-soiled heathy areas. Nearby the Skerne Carrs form an extensive and distinctive area of essentially flat, peaty fenland and carrs with frequent water courses.

Estates and landscaped parklands are occasional features of the Tees Lowlands landscape and include South Park, within the urban setting of Darlington, Wynyard Park, set within an extensive well-wooded estate to the north of Stockton, and Hardwick Park, notable for its landscape garden and 36-acre lake.

The area is crossed by corridors of major infrastructure, including the north-south A1 road, A19 and main east coast railway line, together with the A66 and prominent overhead transmission lines.

Physical Influences

The Tees Lowlands is largely underlain by red mudstones and sandstones of Permo-Triassic age. Jurassic sandstones and shales, resistant to weathering, outcrop on the coast and form the upstanding edge of the Eston and Upleatham Hills near Guisborough.

Almost the whole area is masked by thick deposits of glacial drift, till or boulder clay, sand and gravel. These deposits are typically tinged red by their content of Permo-Triassic rock debris.

The area is gently undulating, falling south and south-eastward from about 120 m on the dip slope of the Magnesian Limestone plateau, to sea level. Much of the area lies below 30 m AOD, with extensive flat areas of coastal plain, estuarine marshland and mud flats and, inland,

areas of carr as at Bradbury, Morden and Preston Carrs. To the south of the river Tees, low undulating hills of glacial moraine rise as a low watershed between the Tees and its former tributary, the river Wiske, which was deflected by the glacial deposits to flow south to the river Swale.

The river Tees flows through the centre of the lowland basin, fed by its tributaries the Skerne, Langley Beck, Billingham Beck and the river Leven. Its meandering course, in places incised through the glacial deposits into the plain, is locally defined by bluffs, with gorge-like sections in its middle reaches. Its flow is controlled by artificial embankments in these stretches, but downstream its flow is controlled by a newly completed tidal barrage.

Historical and Cultural Influences

The Tees Lowlands have always been an important area for farming. Much of the originally wooded landscape of the Tees Lowlands was cleared more than 2000 years ago by Iron Age farmers, who lived in small settlements such as the one excavated at Thorpe Thewles, and cultivated the surrounding area. Roman influences still remain, in the landscape and in the north-south alignment of the modern B6275 road, formerly Dere Street, which ran northwards through the area from Piercebridge which was the fortified crossing of the river Tees. Evidence that the fertile, loamy soils supported a large rural population in the Middle Ages is provided by the many sites of deserted or 'shrunk' medieval villages within the landscape of the Tees Lowlands, especially in the area around Skerne Carrs.



The extensive area of urban and industrial development that forms the Teeside conurbation contrasts sharply with the natural elements of the Tees estuary and surrounding countryside.



Areas of semi-natural open water, such as Saltholme Pools, survive or have been reclaimed from the industrial installations of Teesside. They are habitats of outstanding importance for waders and wildfowl.

The development of the towns that go to make up the conurbation of Teesside as a major industrial area has its roots in rich local mineral reserves, good communications links and an estuarine and coastal location.

Stockton was the location of major innovation in the use of steam which stimulated industrial development throughout the country. The world's first public passenger steam railway, by Act of Parliament, ran from Witton Park to Stockton and was formally opened in 1825. Locomotion no.1 departed from Shildon to Stockton and subsequently Stephenson and Hawkworth pioneered the opening up of the whole area, with lines extending northwards to the Durham coalfield, along the Durham coast and eastwards into Teesside. The remaining artefacts of the many railway lines with their bridges and viaducts reflect the importance of the early development of the railway network.

Teesside was also formerly one of the three most important shipbuilding rivers in the region, exploiting ironstone deposits in the Cleveland Hills, combined with cheap local coal, and the flat estuarine location. The extensive chemical plants, which form one of the largest complexes in Europe, have their foundations in the manufacture of matches, 'Friction Lights' as invented by John Walker of Stockton in 1827. Much of the modern chemical industry developed later, after the 1880s and followed the invention of a process to exploit underlying salt reserves by extracting salt as brine.

In contrast to the rapid industrial growth of the 19th and early 20th century, heavy industry at Teesside has declined considerably over the last 30 years, including the closure of the huge shipyards. The resulting widespread dereliction within the Tees valley has been partly addressed through a variety of both current and completed restoration schemes.

Buildings and Settlement

Some of the small villages, such as Gainford, are early 'green villages', typically with terraced cottages of red sandstone built around a central tree-lined green and often retaining their long characteristic tofts and garths radiating out to meet the countryside beyond. More recent building is often of mottled pink/red/orange bricks with red pantiles.

Piercebridge originated as the site of an important Roman fort which once guarded the strategic crossing of Dere Street over the Tees. Other forts are found at Croft-on-Tees, Low Dinsdale and Yarm. Yarm has since developed as a market town with a long, wide central street and market place lined with elegant Georgian town houses. Middleton St George has quite different origins, enjoying a brief period as a 19th century spa 'town' following the discovery of a sulphur spring at nearby Dinsdale. Larger individual settlements include the market towns of Stokesley, Darlington and Guisborough, with fine 19th municipal buildings in the town centres built of local sandstones.

Dense, urban development lines the lower valley of the Tees. Middlesbrough, Stockton and Billingham occupy higher, drier land above the floodplain, and line the riversides at its lowest downstream crossing point. Large-scale chemical and oil refining works have spread across the estuarine flats forming an almost continuous conurbation between Hartlepool, an ancient town and port, and Redcar, a popular seaside resort. Newton Aycliffe, located adjacent to a second world war ammunitions factory, developed as a 'New Town' in the 20th century.

Land Cover

Extensive areas of the Tees Lowlands region are given over to urban and industrial development, including infrastructure such as motorway corridors, particularly concentrated within the Teesside conurbation and within the A1 corridor. However, within the wider agricultural landscape, broad fields of arable crops, enclosed by a combination of fencing and low hedgerows with few hedgerow trees, ash and sycamore, are typical. This contrasts with the more pastoral landscape of the Skerne lowlands where beef cattle, particularly the local Shorthorn breed, and sheep are reared on the peaty fenland flats and carrs. With the proximity of racecourses at Redcar and Sedgfield, areas of good quality permanent grassland are also grazed by racing horses and by ponies on the fringes of urban areas.

Woodland cover within the region is generally sparse. Locally, however, woodland cover is higher, as for example the substantial, often ancient, semi-natural woodlands on the steep banks of the river Tees valley and its tributary the Leven. Some estates, such as Wynyard Park and Hardwick Park, are well-wooded with blocks of mixed and conifer

planting. New areas of immature mixed woodlands have been planted recently as part of the multi-purpose Cleveland Community Forest programme. Orchards were historically important in the area to the south of the river Tees especially around Ormesby, Guisborough and Yarm.

Areas of semi-natural open water, mud flat, salt marsh, dune and meadow survive or have been reclaimed from the industrial installations of Teesmouth to provide habitats of outstanding importance for waders and wildfowl. Teesmouth and the Cleveland Coast have been identified as a potential Special Protection Area (SPA), and contains a number of important sites including the Charltons Pond bird sanctuary, Cowpen Marshes, Seaton Dunes and the mud flats of Seal Sands.



MIKE KIRLING

The industrial installations of Teesmouth, clustered on land reclaimed from the Tees estuary, form a distinctive and dramatic skyline at night which is highly visible across this low-lying landscape.

The Changing Countryside

- The intensification of agriculture, change in practices and the move from livestock to arable has led to the combining of farm holdings and field amalgamation, resulting in loss of hedgerows and hedgerow trees. Drainage schemes have greatly reduced wetland areas particularly in the Skerne Carrs where the water table has been lowered with a resulting loss of damp grasslands. South of the Tees there has been a noticeable loss of orchards and meadows.
- Changes within river corridors include the under-management of broadleaved woodland and the loss of vegetation cover fringing rivers and watercourses. This has resulted in the erosion of river banks due primarily to over-intensive management. Natural river courses and flows have been altered by the construction of substantial flood defence schemes, including flood alleviation works at Croft-on-Tees, and the recently completed Tees barrage which controls tidal flow in the river.
- Upgrading of road transport links, particularly between the A1 and Teesside urban centres has led to the increased dominance of urban infrastructure whilst large-

scale developments have encroached upon the open countryside. The urban fringe effect, of fragmented holdings, poor land management and miscellaneous landuses, including pony grazing, has extended.

- Steady growth of urban areas has, in places, created abrupt edges to settlements where newly developed sites meet the surrounding land. Other development sites awaiting construction have been left unmanaged and subject to fly-tipping.
- Loss of historic parkland through lack of management of existing features and through the implementation of mixed development within parkland areas, for example Wynyard Park.
- Reclamation of Tees estuary margins for industrial land use has led to the loss of mud-flats and marshes, although the designation of Teesmouth as a SPA/NNR has provided protection for a range of landscape features and habitats, including coastal mud flats, salt marsh, dunes, cliffs and beaches.

Shaping the Future

- The conservation and management of existing field boundaries should be addressed, particularly where the loss of older hedgerows of nature-conservation value, or historic significance, would be detrimental to the landscape character. New hedgerow trees within farmland, and along road sides, would increase the sense of enclosure.
- The management of existing woodland, particularly ancient, semi-natural woodland would ensure continuing diversity of age and structure.
- The restoration and management of both 'built' and natural features within historic parklands and estate landscapes, would help maintain their distinctive character.
- The Cleveland Community Forest, and other programmes for the multi-purpose community use of land surrounding Teesside, can achieve landscape improvements particularly through woodland planting, environmental improvement schemes, the development of countryside gateway sites and recreational access developments. Tree planting within the wider countryside could benefit agricultural diversification and conservation.

- There are opportunities to encourage the conservation of archaeological sites, including deserted or shrunken villages, and surrounding patterns of land use and enclosure, including ridge and furrow.
- The enhancement of degraded river and stream corridors might include the re-establishment of marginal vegetation and the reversion from arable or improved grassland to low intensity grassland management on land adjacent to river channels.
- The character of the Skerne Carrs, would benefit by reverting from arable cropping to a more varied pastoral landscape incorporating areas of semi-natural wetland, carr and species-rich pastures, particularly adjacent to watercourses.
- The enhancement of degraded areas and the re-creation of damaged landscapes, particularly those associated with industrial sites and with intrusive infrastructure, should be considered within their overall setting and landscape character.

Selected References

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- Cleveland Community Forest (1994), *Forest Plan*.
- Durham County Council (April 1994), *County Durham Structure Plan Review: Consultation Draft*.
- Durham County Council (1995), *County Durham Landscape Assessment Working Paper 2: Landscape Classification*.
- British Association for the Advancement of Science (1970), *Durham County and City with Teesside*.
- Durham County Council (1993), *County Durham Nature Conservation Strategy*.

Glossary

AOD: Above Ordnance Datum

carr: a marshy copse