



South Gloucestershire

Landscape Character

Assessment

Supplementary Planning Document

South Gloucestershire Council

Draft report

Prepared by LUC

November 2023

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Appendix A.8: Estuary, Shoreline and Levels LCT

LCA 19: Oldbury Levels

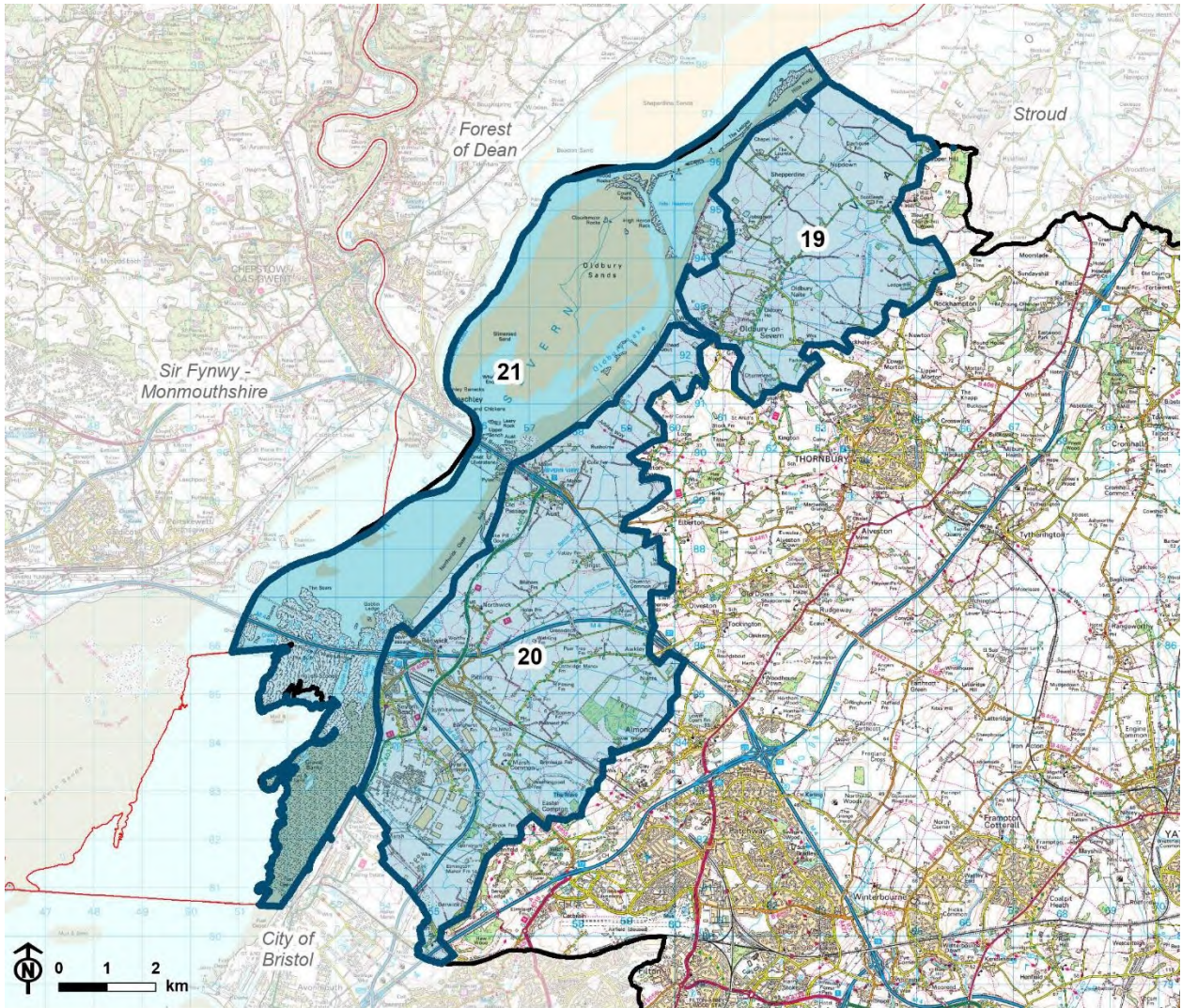
LCA 20: Pilning Levels

LCA 21: Severn Shoreline and Estuary



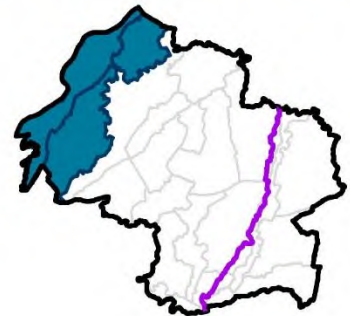
Estuary, Shoreline & Levels LCT

Figure 8.1: Location of Estuary, Shoreline & Levels LCT



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-  Estuary, Shoreline and Levels LCT
-  Council boundary
-  Neighbouring local authority
-  LCAs within Estuary, Shoreline and Levels LCT:
-  LCA 19: Oldbury Levels
-  LCA 20: Pilning Levels
-  LCA 21: Savern Shoreline and Estuary



Description

The Estuary, Shoreline and Levels LCT extends along the western edge of South Gloucestershire and beyond. The most dominant feature is the estuary, with its expansive and panoramic views. Combined with the constantly changing shoreline, the open and exposed character of this area is prominent.

Key Characteristics

- The tidal edge of the Severn Estuary is characterised by mudflats, exposed rock and salt marsh warth.
- The Levels consist of mixed of arable and pastoral farmland, divided by a regular framework of streams and man-made rhines. Hedges and pollarded trees typically follow the pattern of rhines.
- Woodlands are typically small but visually prominent in the largely flat and open landscape.
- Settlements consists of scattered farms and hamlets located on the edge of the Levels or situated on slightly higher ground. These settlements are visible when viewed across the landscape, with churches forming local landmarks.
- Large-scale industrial units in the south of the area are visually prominent in the open landscape. Oldbury Power Station forms a prominent landmark in the north.
- Several major transport corridors including the M4, M48, M49 and the main London to South Wales railway line pass through the landscape, supported by a complex network of minor rural lanes which connect the scattered farms and hamlets.
- The two Severn Bridges are prominent in views and are nationally distinctive landmarks.

Landscape Character Areas

The Estuary, Shoreline and Levels LCT is subdivided into three LCAs:

- LCA 19: Oldbury Levels
- LCA 20: Pilning Levels
- LCA 21: Severn Shoreline and Estuary

LCA 19: Oldbury Levels

The Oldbury Levels landscape character area (LCA) is a largely flat, open to semi-enclosed farmland divided by rhines (ditches), with small orchards and relatively sparse scattered settlement. It is strongly influenced by the adjacent Severn Estuary.

Photo 1: A small pastoral field enclosed by rhines, typical of the Levels landscape.

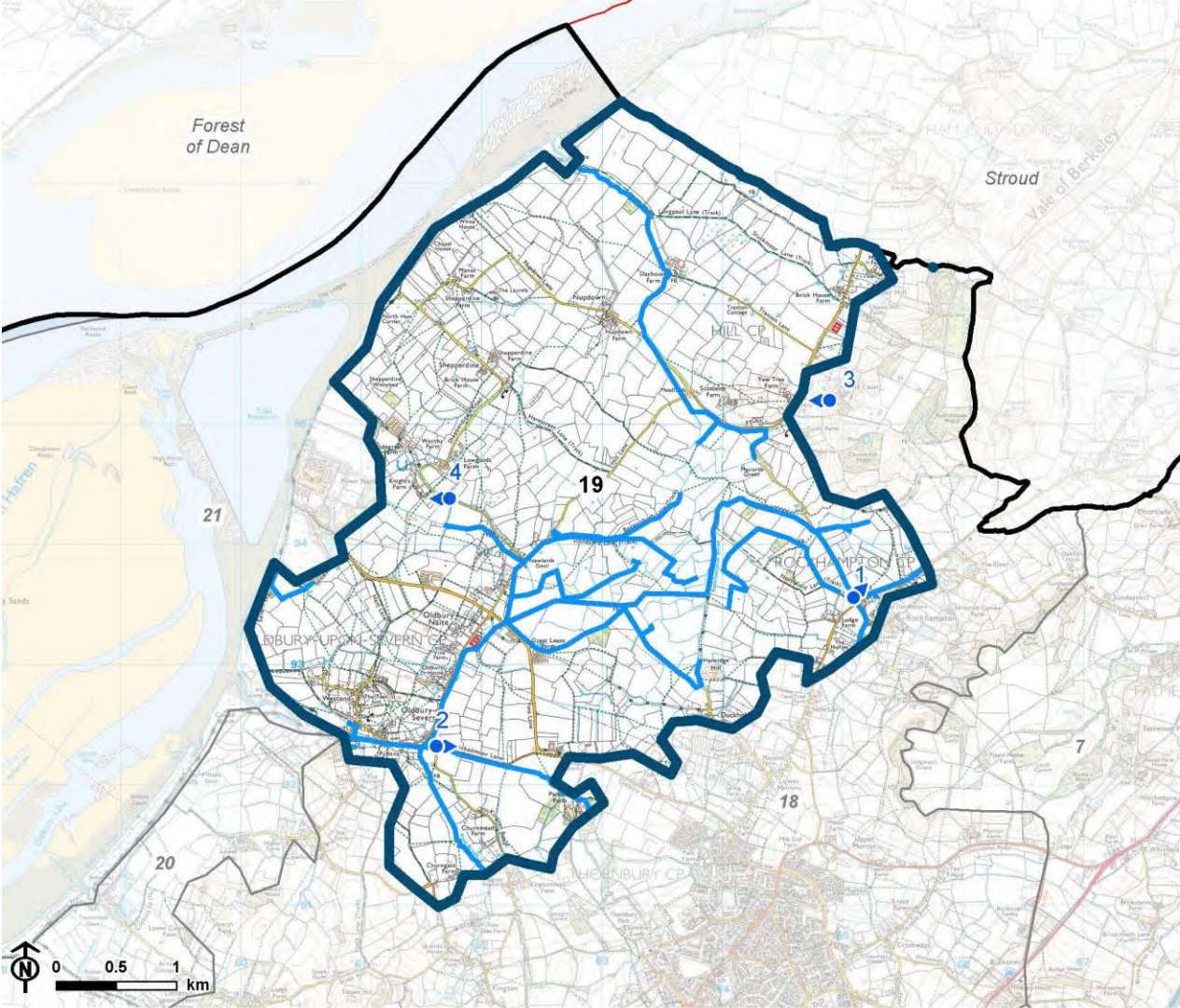


Location


The Oldbury Levels landscape character area is located in the north-west of South Gloucestershire. Its northern limits follow the South Gloucestershire Authority boundary, although the landscape character continues northwards. The southern and eastern boundaries follow an often-subtle transition in landform, land cover and drainage pattern between the Levels and the rising Severn Ridges to the east. The boundary largely follows the 10-metre contour, although in some places the topographic change is imperceptible. The western boundary follows the sea wall, which marks a distinct change in land cover between the enclosed fields of the Levels and the open intertidal area of rough grassland, warths (salt marsh) and mudflats to the west, where the open expanse of the Estuary is dominant. The boundary excludes Oldbury Power Station complex, as this is more strongly associated with the Estuary edge.

Estuary, Shoreline & Levels LCT

Figure 8.2: Location and Landscape context of LCA 19: Oldbury Levels



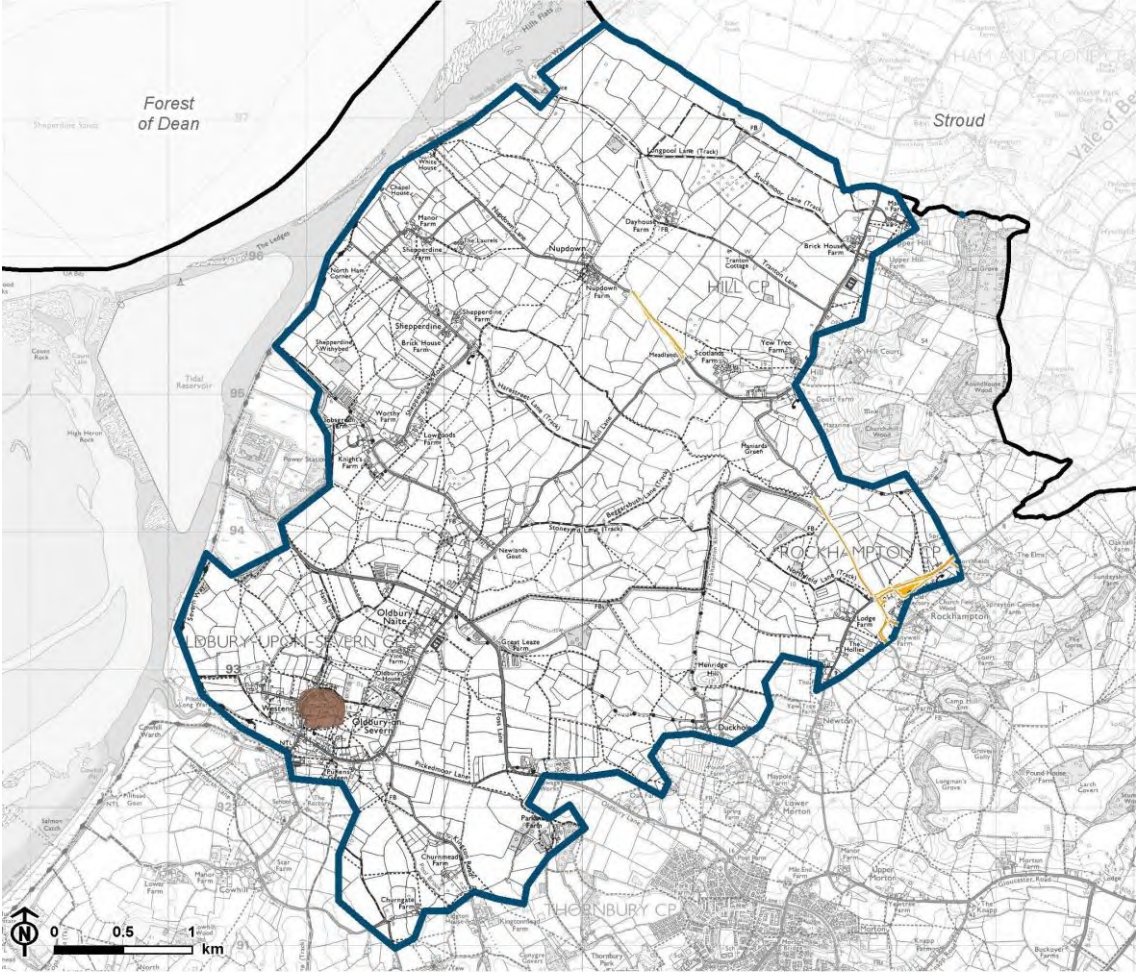
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-  LCA 19: Oldbury Levels
-  Neighbouring LCA
-  Council boundary
-  River
-  Photograph location and direction



Estuary, Shoreline & Levels LCT

Figure 8.3: Development and Heritage context of LCA 19: Oldbury Levels



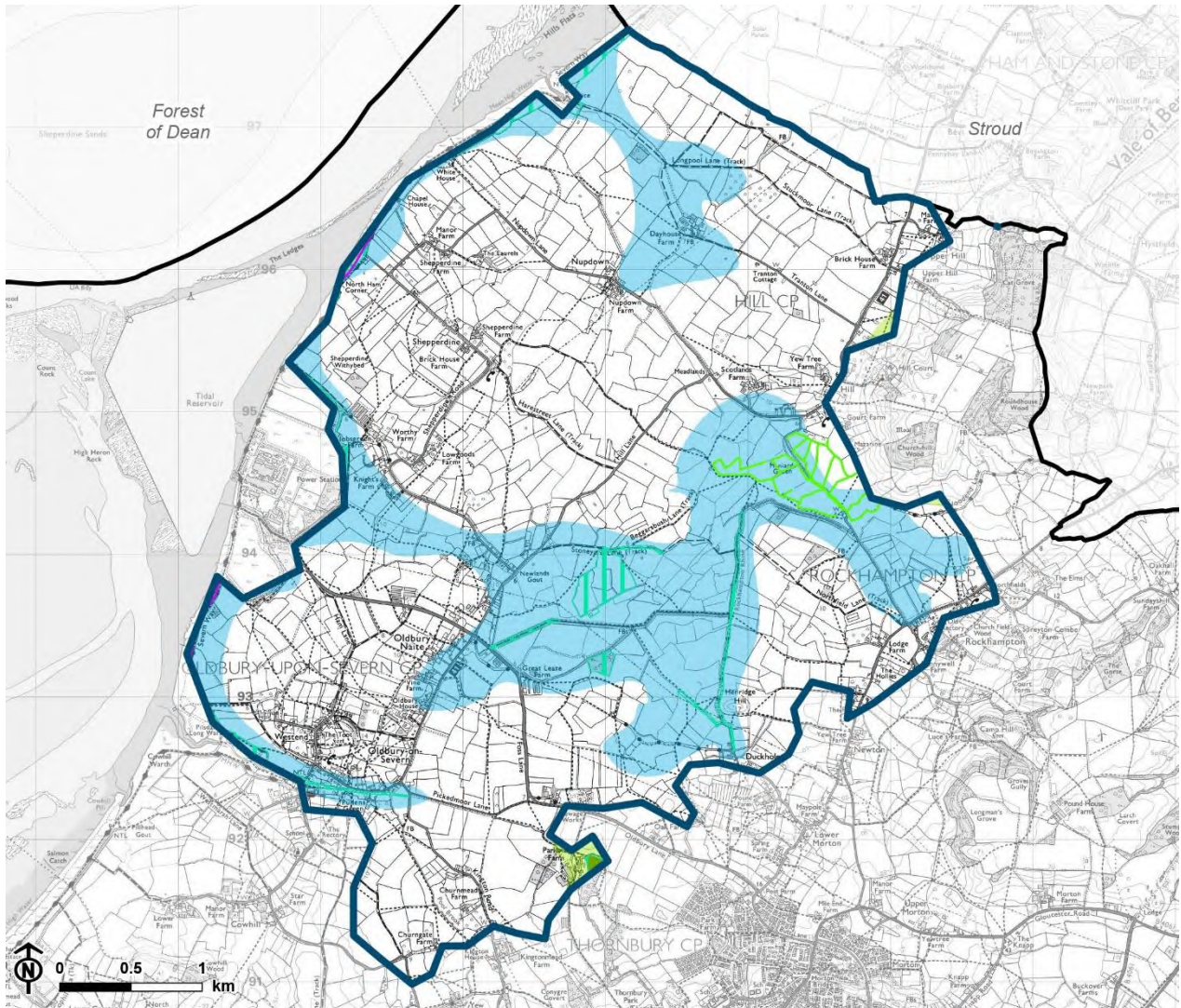
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-  LCA 19: Oldbury Levels
-  Council boundary
-  CRoW Common Land
-  CRoW Open Access Land
-  Scheduled Monument



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Figure 8.4: Ecology and Biodiversity context of LCA 19: Oldbury Levels



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- LCA 19: Oldbury Levels
- Council boundary
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- Ramsar site
- Site of Nature Conservation Interest
- Ancient woodland
- Wetland Strategic Network
- Woodland Strategic Network
- Important hedgerow



Landscape Description

Key Characteristics

- Flat landscape of small to medium sized pastoral fields, both regular and irregular in shape occasionally punctuated by isolated knolls.
- Field pattern is frequently defined by a network of rhines, often supplemented by hedges, which are a mixture of both closely clipped and overgrown.
- A historic landscape dating as far back as the Roman period, underlain by alluvial deposits of high archaeological potential, containing deposits of prehistoric origin. Some medieval ridge and furrow survives.
- Small scattered deciduous woodlands and copses, with frequent hedgerow trees, occasional pollarded trees, some withy beds, and small orchards associated with farms. Some areas have very little tree cover.
- Neutral and marshy grassland across this character area provides visual texture and support a diverse range of flora, while pastoral farmland provides overwintering habitat for birds associated with the adjacent international designated Severn Estuary.
- A limited but regular distribution of often historic settlements, largely built of stone, with some brick. Much of the Levels are sparsely populated.
- An intricate network of angular, enclosed lanes, often following the historic drainage pattern. Lanes are occasionally flanked by broad grass verges, common land and rhines.
- Unpaved trackways provide wider connections and recreational value throughout the Levels.
- Open to semi-enclosed landscape, with a strong visual influence of the estuary and extensive views west to the Wye Valley / Forest of Dean , and east to the Severn Ridge. The area provides a rural setting in views of the Severn Bridge.

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- Localised enclosure is formed by mature trees, hedgerows, orchards and copses.
- Oldbury Power Station and its radiating powerlines form large-scale, visually prominent elements on the open skyline.
- A rural landscape with a remote and tranquil character, with dark night skies.

Natural Influences

Geology, Landform and Hydrology

The geology of this area is predominantly alluvial, with alluvial gley soils, peats, and occasional alluvial gravel fans typical of the lowland Levels and adjacent Severn shoreline. This results in a very flat, low-lying landscape. With the exception of slightly higher ground to the west of Hill (19 metres AOD), Henridge Hill (17 metres AOD) and Oldbury-on-Severn (14 metres AOD), the topography generally lies at or below 10 metres AOD.

A defining physical element of this area is the sea wall to the west and complex pattern of drainage ditches, locally called rhines. The sea wall comprises a grass-covered earth embankment up to 2m above the adjacent natural ground level. Flood defences have been a feature along the edge of the estuary since at least the mid-18th century. Some of the rhines date to medieval times, with other phases of construction during the Napoleonic era and First World War. These phases in land drainage reclaimed areas of marshland to improve agricultural production. The pattern of rhines gives some indication of their date of construction, the more regular patterns representing the most recent areas of drainage. The rhine system is controlled by sluices in the sea wall, which discharge into tidal pills and the Estuary beyond. In places, 'gryps' (a subtle linear shallow bank landform similar to ridge and furrow) provide drainage to the rhine network.

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The dense pattern of tributaries covers an extensive area in the east of the LCA at Rockhampton Rhine, flowing west to join the broad meandering tidal channel of Oldbury Pill at Oldbury-on-Severn. In the north, a simple, regular pattern of north-west flowing channels discharge into the small Hill Pill. The drainage pattern across the Levels is evident primarily from higher ground to the east of this area, the pills being visible where they discharge into the Severn. Few of the rhines are named on OS maps (1:25,000 Explorer range), yet most have local names, contributing to local identity, distinctiveness, and sense of place.

Land Cover

Land cover is predominantly pastoral with occasional areas of arable land, particularly to north of Oldbury of Severn and fringing the Estuary to the north of Nupdown. The field pattern is diverse, with distinct areas defined by rhines. Hedgerows include a combination of clipped, overgrown and laid hedges which follow the Rockhampton Rhine drainage pattern, forming an intricate pattern of small to medium-scale fields. Rhines typically include open standing water, and there are several small in-field ponds scattered across the LCA. Ridge and furrow is a common subtle feature evident within many unimproved fields within the Levels. Gryps created for field drainage, are also evident and form low banks which spread out from the centre of fields. The underlying soil layers have been laid down over time and are of significant archaeological potential, although much of the area is unsurveyed.

Fields adjacent to the Severn Estuary typically comprise a mix of small to medium-scale regular fields with some narrow strip fields, often orientated in alignment with the sea wall and the estuary. To the north of Nupdown Road, fields are typically larger, with a more balanced and regular pattern.

Tree cover is variable in structure and distribution, comprising small, scattered woodlands and copses, including withy coppice beds and poplars, as well as deciduous hedgerow trees, mature specimens, and pollards scattered within hedgerows and fields. The area around Rockhampton Rhines has a frequent pattern of mature hedgerow trees and isolated specimen trees, following the line of former hedgerows. In contrast, the Levels west of Upper Hill have very

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few trees. Near settlements, the tree and hedgerow structure becomes more diverse, with orchards commonly associated with farms throughout the area. There are some non-native trees such as Leylandii conifers near Oldbury-on-Severn.

Photo 2: A typical rhine along Pickedmoor Lane near Oldbury on Severn.



Biodiversity

This pastoral landscape with its mosaic of grassland, watercourses and rhines, ponds, and scattered tree cover, connected by wildlife corridors including hedgerows make the Oldbury Levels an important habitat for a diverse range of species. The pastoral land presents an important roosting and foraging opportunity for the over-wintering birds associated with the internationally and nationally designated Severn Estuary and its associated species.

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Tree cover is relatively sparse, with just 32 hectares of woodland, much of which is made up of orchards, and just over one hectare designated as ancient woodland. Parkmill Covert and Kingswood broadleaved woodlands are designated as SNCIs. Key species likely to be associated with the broadleaved woodland include bats and dormice both of which are present across the district and are European protected species and priority species with associated Biodiversity Action Plans (BAP).

The mosaic of neutral and marshy grassland, rhines and estuarine habitats comprise a number of SSSI designations, reflecting the national significance of these habitats for flora and fauna. This diverse habitat supports a range of invertebrates which in turn provide a food source for mammals including bats. The strong hedgerow network and associated rhines provide ecological corridors between adjacent areas and enhance habitat connectivity.

Large numbers of over-wintering birds drawn to the Severn Estuary are a seasonal feature of the Levels, both in the fields and overhead.

Numerous watercourses (including rhines) criss-cross the landscape, supporting a diverse range of species from aquatic macro- invertebrates to fish, water vole and otters. Ponds and pools within the area support amphibians such as great crested newts (a European Protected Species).

South Gloucestershire Strategic Green-Blue Infrastructure Corridor A (Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)) covers the majority of this LCA, encompassing the wetland strategic network and habitats associated with the Severn Estuary. A small area of Green Infrastructure Corridor B (Charfield-Alveston-Hallen (*Western Scarp/Severn Ridges*)) fringes the north-eastern boundary of the LCA, incorporating the woodland strategic network along the adjacent Severn Ridge.

Cultural Influences

Land Use and Time Depth

Early settlement and land use is indicated by the presence of Oldbury Camp Iron Age Hillfort (also known as Toot Hill Fort), a Scheduled Monument, located to the north of Oldbury-on-Severn on a slight rise above the surrounding Levels. Many of the historic farmhouses in the area are nationally listed.

The Levels have a history of land reclamation dating back to Roman and medieval periods. The continual pastoral land use of the Levels has resulted in little ground disturbance and as a result, remnant ridge and furrow patterns within pasture fields are frequent, contributing to the sense of time-depth in the landscape. Although the archaeological value and content of the area is largely unknown, the peat within the Levels may contain evidence of early prehistoric activity, which could be of considerable significance due to its national rarity.

Settlement and Infrastructure

Settlement within the area is relatively sparse, comprising the village of Oldbury-on-Severn, with occasional hamlets and scattered farmsteads dotted along the lanes across the landscape.

Oldbury-on-Severn comprises a linear village focussed on a crossroads, with settlement strung out along a number of small lanes. Buildings are generally built in sandstone and brick. The hamlet of Rockhampton, located in the east of the LCA at the toe of the Severn Ridge comprises a dispersed pattern of sandstone and render farms, cottages and houses along lanes, interspersed with linear areas of grass common land. A rectory and church create a focal point for the settlement. Shepperdine comprises a dispersed rural hamlet lying close to the sea wall and north-east of the existing nuclear power station (located within LCA 21). Elsewhere, the settlement pattern within the Levels has a distinct, regular and balanced arrangement of farmhouses and buildings, often

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well-spaced and formally set within small fields, grassland and orchards, the frontages facing the adjacent lanes. In the north-east of the LCA (within Hill Parish) the medieval settlement layout remains relatively unchanged, consisting of a linear pattern of farms on the edge of the Levels, and isolated farmsteads within the Levels themselves. Large areas, intensely dissected by ditches, remain uninhabited. A boundary wall at Nupdown Farm includes copper slag coping stones, a by-product from the Warmley Brassworks (within LCA 14: Kingswood).

A number of modern agricultural sheds are grouped around farms in the south-west of the LCA, notably near Oldbury Power Station.

The character area is crossed by a network of minor unclassified lanes and roads, their sometimes-angular pattern strongly influenced and determined by the rhines, which often edge these routes. Lengths of lanes are occasionally unenclosed by field boundaries and flanked by broad grass verges of common land (for example near Rockhampton). A number of named, unpaved lanes (often defined as bridleways), connect with the local road network.

The area is well connected by public rights of way including the Severn Way long distance footpath, which runs along the sea wall at the western edge of the character area affording intermittent views across the Oldbury levels. A dense pattern of footpaths radiate from Oldbury-on-Severn, with frequent inter-connections. Elsewhere, they follow straight, long courses cutting across fields, often guided by the pattern of field boundaries or rhines. The pattern of bridleways largely echoes the angular form of the lane network and often follows un-metalled tracks. One of a series of Circular Rides follows a convoluted course along lanes and bridleways, crossing the Levels to Oldbury-on-Severn via the Rockhampton Rhine, Stoneyard Lane track, passing to the north of Oldbury Naite before reaching Oldbury-on-Severn. National Cycle Network route 41 runs northwards through the LCA, following the rural lanes.

Photo 3: The dispersed pattern of traditional farmsteads among pastoral farmland near Hill, with views to Oldbury Power Station and the South Wales hills beyond.



Perceptual Influences

Visual Character

The Oldbury Levels comprise a flat and semi-enclosed to open lowland landscape, with the Severn Ridges forming a backdrop to the east. The landscape structure is influenced greatly by the pattern of rhines, particularly in unpopulated areas, which in turn largely defines the vegetation structure and the alignment of lanes.

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Visual enclosure is provided by the strong vegetation structure. Where the landscape is more open, there are views to the distant backdrops of the Severn Ridges to the east and wooded skyline of the Forest of Dean to the west, emphasising the scale of the Levels area. The visual inter-relationship of the Severn Ridge and the Levels is important, with views to listed buildings, Scheduled Monuments and historic landscapes on the ridge contributing to the character of the Levels.

Mature trees and pollards provide enclosure and texture to the Rockhampton Rhine landscape, with clipped or overgrown hedges defining the irregular field pattern. The rest of the LCA largely comprises regular shaped fields bounded by clipped hedges, with limited tree cover and occasional orchards, which results in a relatively open character, particularly in areas of larger field size, such as the area to the north of Nupdown Road. The pattern of angular lanes, often fringed by broad grass verges edged by water filled rhines, is a distinctive feature of the LCA.

Settlement punctuates the landscape, largely of traditional farmsteads, cottages and houses which edge or contain the lane network. The formal and balanced arrangement of stone-built farmsteads, set back from but facing the lanes, set within small open pockets, with adjacent orchards, form distinct local features. They are typically well-integrated within the rural fabric, due to the low-lying topography and strong vegetation structure. The church at Rockhampton forms a local landmark. Similarly, the church of St. Arilda's to the south of Oldbury-on-Severn, perched on an elevated knoll (within the Severn Ridges LCA) is a prominent and distinctive landmark, visible from some distance.

The existing Oldbury Power Station is prominent in many views from this LCA, its large-scale industrial built form (particularly the pale blue and grey striped reactor buildings) strongly contrast with the otherwise rural character of the area. The dominance of this structure within the landscape significantly increases with proximity, and within the vicinity of the power station, the scale of the buildings seen against the estuary and sky dwarf adjacent vegetation and other landscape features. The powerlines and their towers converging at the power station are also prominent, often seen in silhouette against the skyline.

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Large modern farm sheds are locally prominent in places, owing to the scale and height of the structures and materials used, which contrast in form and texture to the older buildings, although where set behind older buildings and/or within the strong vegetation structure they are generally better integrated. The flat landform, combined with low hedges, limited hedgerow trees and small woodlands produce an open to semi-enclosed textured landscape. Medium to distant views are possible from open lanes and from occasional high points at Oldbury-on-Severn and Rockhampton, towards the Severn Ridges to the east, or towards the Wye Valley ridges and Forest of Dean beyond the Severn Estuary to the west. These distant views provide a regional context to the area and contribute to its character. The expanse of the Severn Estuary, although not visible from the majority of views, does reflect light and provides some 'brightness' to the edge of the area. The sea wall along the western boundary forms a barrier to views close to the estuary from the landward side, but itself offers views into the landscape from the Severn Way footpath which runs along its top.

Several overhead powerlines on lattice pylons cross the area, radiating from Oldbury Power Station north and south of Oldbury Naite. The pylons form prominent vertical structures on the open skylines of this flat low-lying landscape.

Photo 4: View west across pastoral fields near Sheppardine, the rural charater of the landscape contrasting with pylon lines and the towers of Oldbury Power Station



Tranquillity and Dark Skies

The Oldbury Levels LCA is a strongly rural landscape with a sense of time-depth and some sense of remoteness, owing to the limited presence of modern development. This is a highly tranquil landscape owing to the sparse settlement pattern, and absence of modern development (including major settlement or transport corridors). The area experiences dark night skies throughout, especially in the north. There is some localised light pollution around Oldbury Power Station.

Visually Important Hillsides

There are no Visually Important Hillsides located within this LCA. However, Upper Hill VIH lies adjacent to its north-eastern edge (located within LCA 18). Its elevation and steep sided slopes contrast with the low-lying levels landscape and form a prominent backdrop in views east from the levels.

Further details are provided in **Annex I: Visually Important Hillsides**.

Strategic Viewpoints

There are no Strategic Viewpoints located within this LCA, however SVP 6: Hill Court (located within adjacent LCA 18) provides views over the Oldbury Levels from an elevated vantage point, taking in the Severn Estuary and the hills of the Wye Valley and South Wales, and the landmark features of Oldbury Power Station, the Severn Bridge and the Prince of Wales Bridge.

Further details are provided in **Annex II: Strategic Viewpoints**.

Evaluation

Key Sensitivities and Value Features

- Traditional pastoral land use in small to medium-scale fields reinforce the local landscape pattern.
- Locally distinctive drainage ditches and rhines, supported by a network of hedgerow that contribute to the sense of place.
- Semi-natural habitats including grassland, watercourses, and traditional orchards, some designated as SNCI sites provide visual texture and ecological value.
- Historic features including Oldbury Camp Iron Age Hill Fort and visible ridge and furrow in fields contribute to the sense of time depth in the landscape.
- Quiet rural lanes, often edged by rhines or hedgerows.
- Low density settlement of traditional buildings with a medieval layout.
- Open and expansive views, west to south Wales/Forest of Dean and east to the Severn Ridge, that contribute to the sense of place and scenic value.
- The network of rights of way including the Severn Way long distance footpath enable recreational access to the landscape.
- Strong perceptual qualities of rural tranquillity, with dark night skies.

The Changing Landscape

The following section sets out the changes and pressures to the Oldbury Levels LCA.

The Oldbury Levels landscape character area is a rural area, retaining much of its historic layout, land use and character, with field patterns and pastoral land use remaining unchanged since medieval times. Development is typically small-

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scale or low key (with the exception of the existing Oldbury Power Station and powerlines) and the area appears relatively unaffected by pressures for change experienced in many other parts of South Gloucestershire.

Climate Change

- The area is subject to pressure for renewable energy provision, including wind and solar developments. Wind energy developments within this LCA and in surrounding character areas would be highly visible due to flat, low-lying landform and would introduce modern built development to the rural character of the Oldbury Levels.
- Increased temperatures as a result of climate change, as well as increased frequency and severity of flood events in winter and drought events in summer may affect the water levels of the rhines.
- Changes in sea level as a result of climate change may result in increased frequency of storms and flood events.

Climate Emergency and Nature Recovery

- Well-maintained farm orchards are a characteristic feature of the area. Some are ageing in structure, however interest in community orchards and planting of new orchards bodes well for these characteristic features and their biodiversity value.
- The vegetation structure is not being supplemented by new planting resulting in a potential decline of the existing strong framework and a more open landscape as well as a reduction in diversity of habitat.
- Great Crested Newts and other aquatic species are vulnerable to any loss of habitat including the terrestrial habitat around ponds as well as the ponds themselves.

Land Use and Cover

- The rhine drainage pattern, linked to the tidal pills, is essential to the agricultural viability of the area, maintaining the ground water level below

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that of the adjacent fields, and also makes a significant contribution to the diversity of habitat and biodiversity value of the levels.

- Hedgerows are generally actively managed; however, a limited number of hedges have been removed or replaced with fencing. A decline in hedgerow management has the potential to erode the existing landscape infrastructure as well as biodiversity value and wildlife connectivity.
- Dependent on the number of hedgerow trees that are allowed to develop, or are planted, the landscape character of areas with currently overgrown hedgerows could become more or less open as a result of management.
- The regular cyclical pollarding of hedgerow trees and coppicing of withy beds is in decline, indicated by the relative scarcity of tree pollards. The eventual loss of overgrown withy beds would result in a loss of a local traditional feature, which presently contributes to the landscape structure.
- The loss of mature hedgerow trees through Dutch Elm Disease was historically widespread across the Levels. As a result, the character of the area is now significantly more open and windswept than in the middle of the 20th century. There is little evidence that these trees have been replaced: the cyclical regrowth and die-back of elm suckers mark the location of former mature trees, where management of hedgerows is infrequent.

Development

- Development has the potential to result in significant impact on potential archaeological resources. the ridge and furrow and 'gryps' which are important historic features found within many of the traditional pasture fields would be easily damaged by a change in land use to arable farming or other uses such as solar farms.
- Horse keeping around Oldbury-upon-Severn has affected the character of the village, and the introduction of floodlighting may also disturb wildlife.
- Several clusters of large farm sheds (including poultry sheds) affect the character and quality of the local landscape. A greater frequency of buildings or the introduction of larger, more prominent structures would impact on the remote character of the area.

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- The introduction of large-scale built development or cumulative small-scale developments would impact on views into the area from surrounding higher ground, including the Severn Ridge, as is evident with the existing 60m high reactor buildings at Oldbury Power Station.
- An increase of modern, visually prominent structures in this flat landscape would degrade the perception of relative remoteness and would erode its traditional, rural pattern and character.
- The decommissioning of the existing Oldbury Power Station includes demolition of redundant structures, and the introduction of some new temporary buildings. This is resulting in changes to the massing and structures surrounding the main reactor buildings and changes in the use of the site and remaining structures. The Nuclear Decommissioning Authority envisages final site clearance in the 2080's, however it may be that new uses are proposed for the brownfield land released by the decommissioning programme.
- A 150ha area to the north of the existing power station, extending to Sheppardine Road is designated in National Policy Statement EN-6 for the development of a new nuclear power station. This site straddles the Oldbury Levels (LCA 19) and the Severn Shoreline and Coast (LCA 21). The scale and massing of development proposed will depend on the technology proposed for deployment at Oldbury. Cooling technology is a particular issue as natural draft cooling towers can be up to 200m tall and would be highly intrusive in the flat Levels landscape. Adopted South Gloucestershire planning policy seeks integration of the existing power station or any new structures, and promotes the reuse or redevelopment of existing infrastructure in order to minimise impacts on the wider landscape.

Guidance

These guidelines recommend how the landscape can be managed to ensure future change respects the local character and should be read in conjunction with the overarching management strategy objectives of the South Gloucestershire Landscape Character Assessment, as set out in Chapter 4.

Landscape Strategy

Landscape Management

- Manage the historic small-scale field pattern, including through willow pollarding and management of withy beds and tree belts, to ensure long term conservation of these key features for their cultural and biodiversity value.
- Maintain and restore the extensive drainage network of rhines, gryps, pill, and sea wall, together with sensitive management of ridge and furrow to retain the historic landscape character of the levels.
- Ensure that new development and present and future land use practices respect and conserve the historic landscape of the levels including its field systems and remaining areas of ridge and furrow and have special regard to the archaeological potential of the area.
- Conserve the Medieval settlement pattern of the Hill Parish area, and the character of the linear settlement of Oldbury on Severn, ensuring that the balance of development and green space that contributes to the character of the settlements is maintained.
- Protect and enhance the character and quality of the rural setting to and views of the Grade I listed Severn Road Bridge, and Grade II* listed St Arilda's Church (in adjacent LCA 20).
- Protect the strong rural, tranquil qualities of the landscape, including the sparse settlement pattern and dark night skies. Resist development that would dilute these highly valued qualities.

Ecology/Biodiversity Management

- Conserve and extend overwintering habitat for species associated with the international and national designations on the Severn Estuary including high tide roosts.
- Seek opportunities to restore, enhance and create new traditional orchards to enhance landscape character and biodiversity value.
- Maintain and enhance existing hedgerows and increase associated tree cover, including tree belts which are a distinctive feature of the LCA.
- Support the creation of new wildflower habitats along B-lines (identified by Buglife) within the LCA to contribute to the national pollinator network, for example along grass verges.
- Seek opportunities for wetland creation and rhine habitat enhancement, including measures to control pollution from agricultural run-off.

Development Management

- Any redevelopment proposal for the Oldbury power station should be planned and designed to minimise impact on the character and amenity of views from the surrounding landscapes, including careful consideration of the bulk and height of the built form, the appearance and integration of any supporting infrastructure, and provision of a robust landscape framework.
- Ensure renewable energy developments are sensitively designed and sited to minimise their impact on visual and landscape character, also considering cumulative effects that will be widely visible across the flat low-lying landscape. Use existing vegetation to screen new developments where appropriate.

LCA 20: Pilning Levels

The Pilning Levels landscape character area (LCA) is a landscape of contrast, with largely flat, semi-enclosed farmland divided by rhines (drainage ditches) and linear transport routes across the central and northern area, and extensive areas of industry and warehousing in the south.

Photo 1: View across hedgerow-bound pastoral fields near Littleton upon Severn.

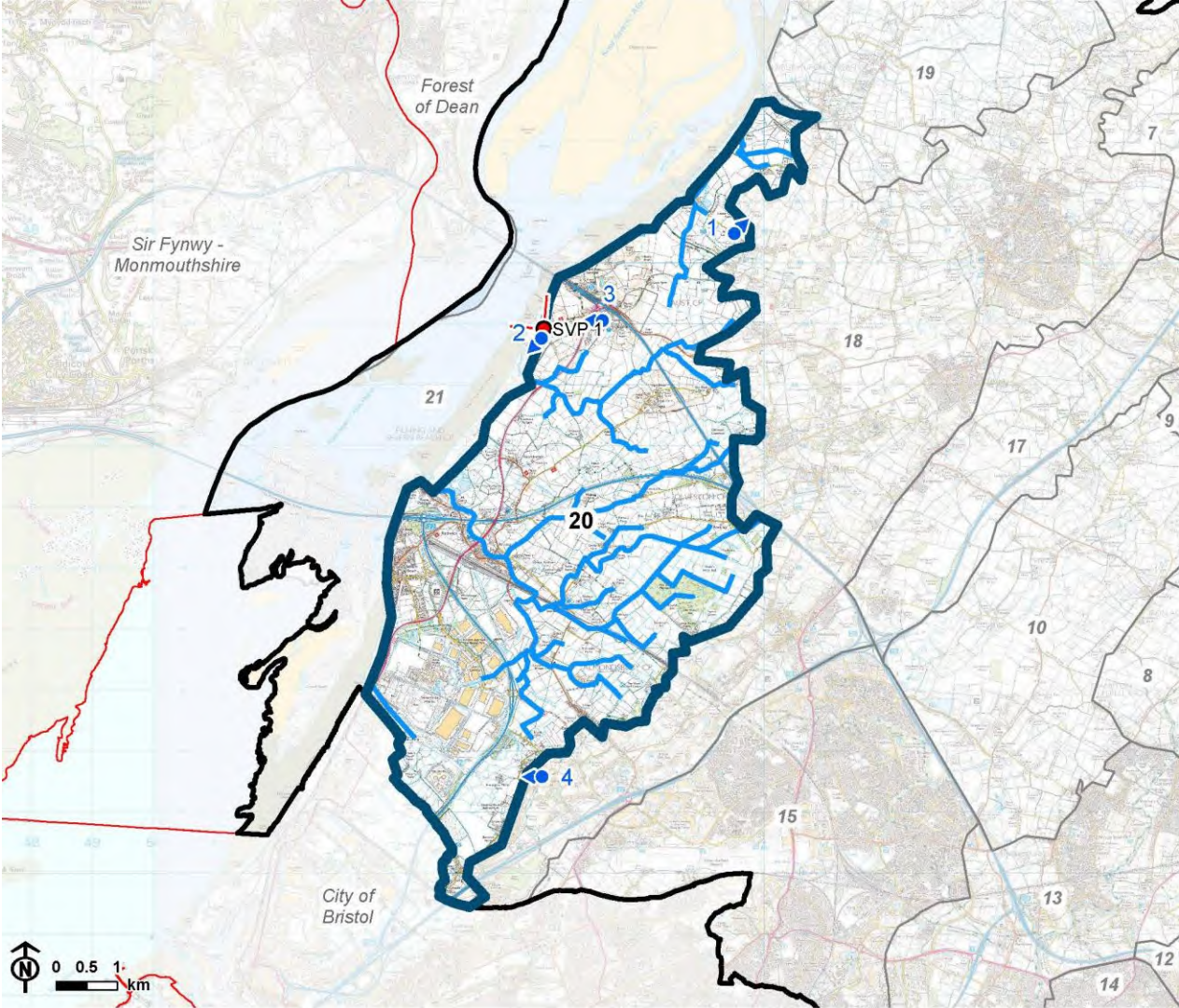


Location







The Pilning Levels LCA is located on the south-western edge of South Gloucestershire, to the north-west of Bristol. Its southern boundary follows the South Gloucestershire Authority boundary, although the character of this area continues south towards Avonmouth (within the Bristol City area). The eastern and north-eastern boundaries follow an often-subtle transition in landform, land cover and drainage pattern, between the flat Levels landscape and the rising ground of the Severn Ridges. The boundary largely follows the 10m contour, although in some places the topographic change is imperceptible. To the west, the boundary follows the sea wall and rock outcrop at Aust. Here there is a clear transition between the fields of the Levels and the warth salt marsh and intertidal areas of mudflats, where the open expanse of the Estuary are dominant.

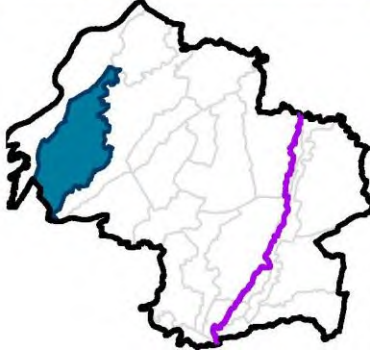
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Figure 8.5: Location and Landscape context of LCA 20: Pilning Levels



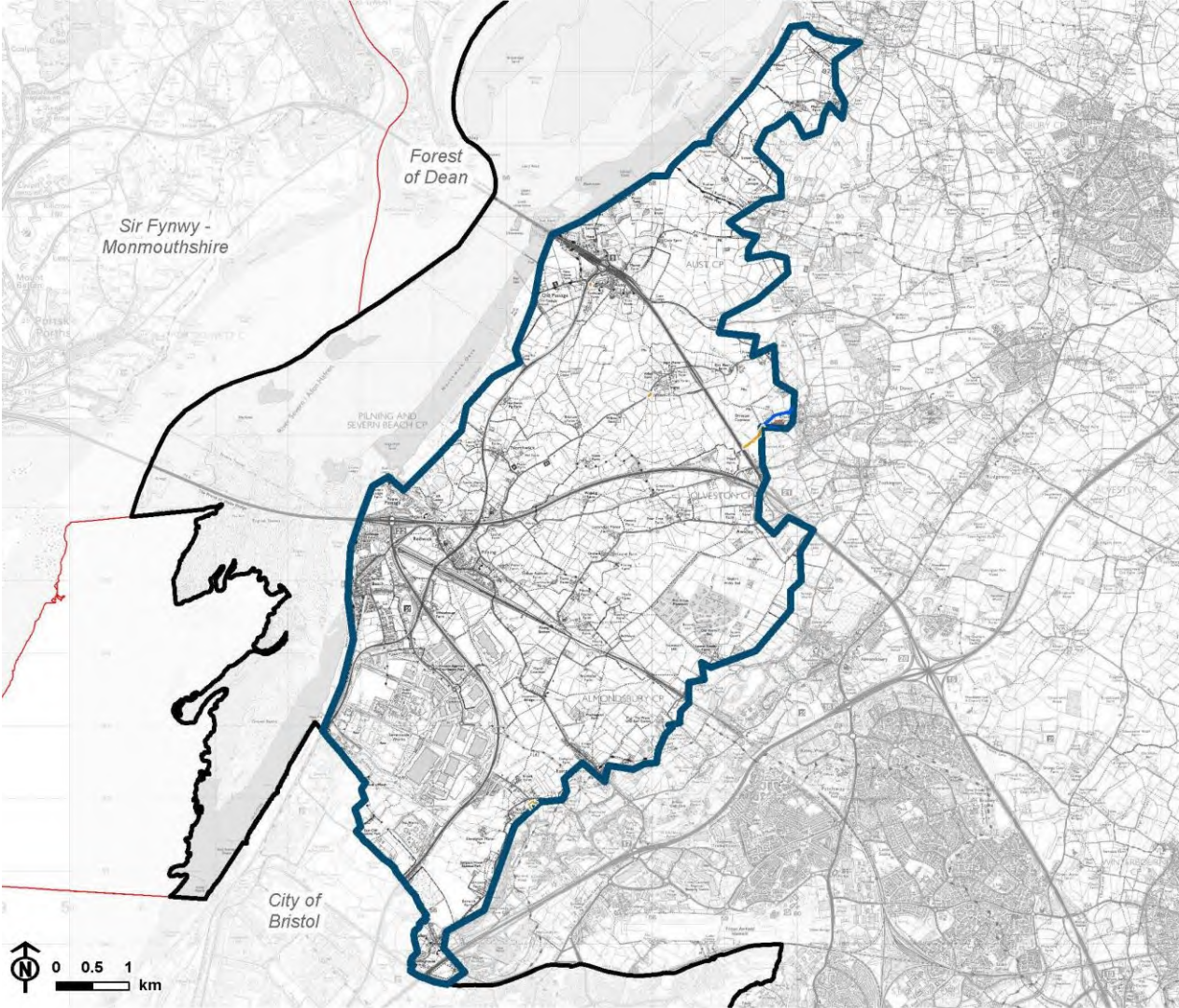
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-  LCA 20: Pilning Levels
-  Neighbouring LCA
-  Council boundary
-  River
-  Photograph location and direction
-  Strategic viewpoint and angle



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Figure 8.6: Development and Heritage context of LCA 20: Pilning Levels



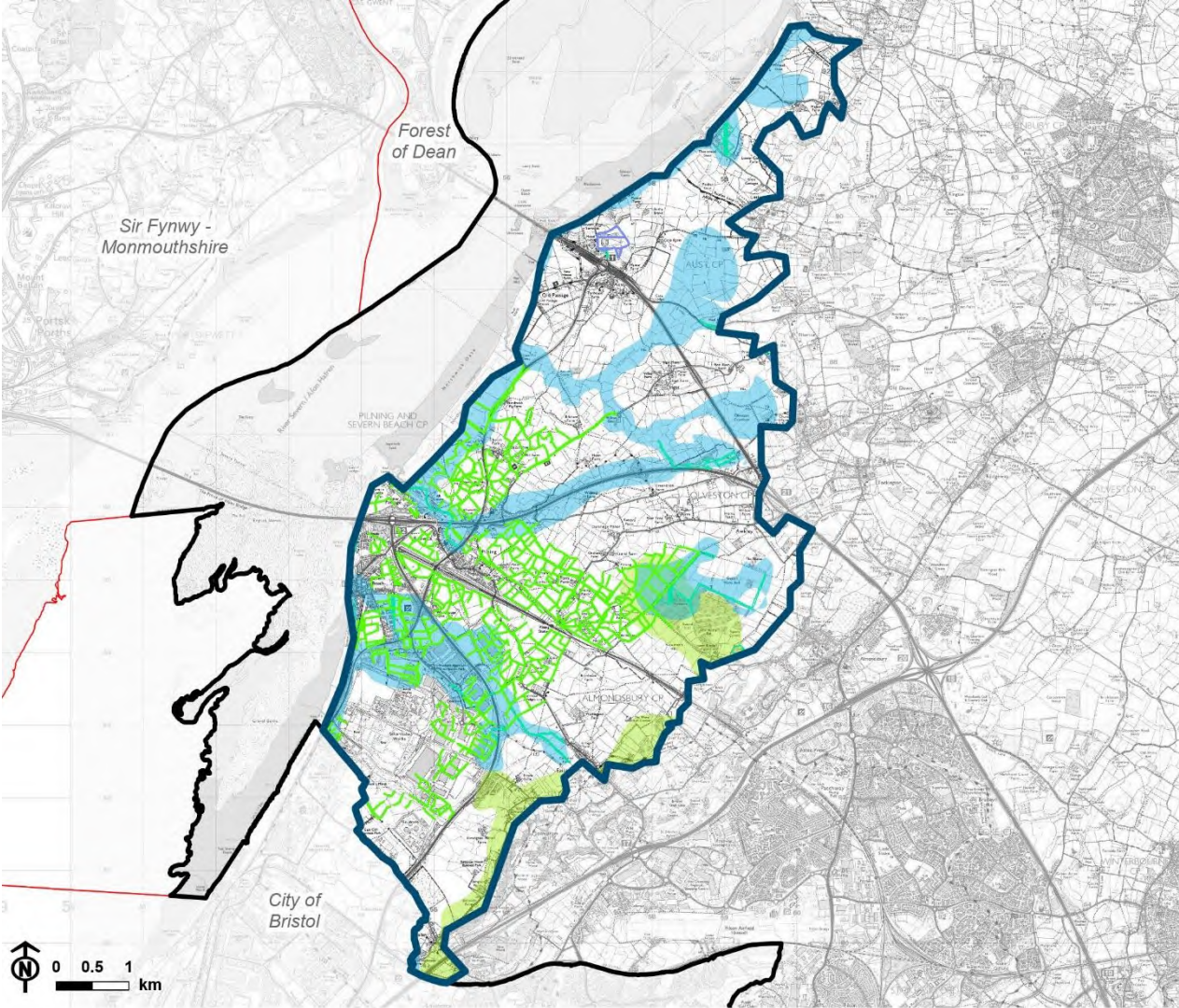
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-  LCA 20: Pilning Levels
-  Council boundary
-  CRoW Common Land
-  CRoW Open Access Land
-  Scheduled Monument
-  Conservation Area











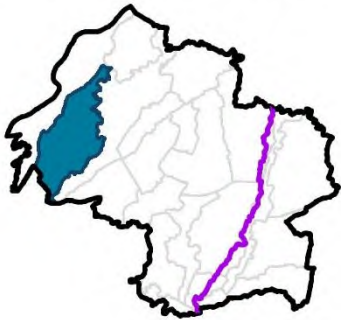
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Figure 8.7: Ecology and Biodiversity Context of LCA 20: Pilning Levels



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-  LCA 20: Pilning Levels
-  Council boundary
-  Site of Nature Conservation Interest
-  Ancient woodland
-  Regionally Important Geological Site
-  Wetland Strategic Network
-  Woodland Strategic Network
-  Important hedgerow



Landscape Description

Key Characteristics

- The rural part of the character area comprises a flat, simple landscape with outliers at Ingst and Aust which form prominent low hills.
- A varied field pattern with small to medium sized regular and irregular fields, with a mix of pasture (some with ridge and furrow) and arable land use.
- The farmland is criss-crossed by rhines, clipped and some overgrown hedges, with occasional strong tree belts, withy beds, orchards, scattered mature trees and pollards.
- Strong visual influence of the estuary, and areas of the levels that provide overwintering habitat for birds associated with the international and national designations on the Severn Estuary.
- Neutral, calcareous and marshy grassland across the levels provide visual texture and support a diverse range of flora.
- Semi-enclosed to open landscape, with occasional long-distance views from slightly elevated vantages, west towards South Wales & Forest of Dean and east towards the Severn Ridge. Scattered woodland provides visual enclosure in some areas.
- Numerous major roads, including the M4, M48, M49 and A403, as well as a railway line bisect the landscape. Embankments and bridges form prominent features, partially integrated by vegetation.
- Limited clustered settlements and scattered farms, mainly on higher ground, with much of the area of the rural landscape being relatively unpopulated.
- An expanding complex of industrial, power generation, chemical works and distribution warehouses are prominent to the south and continue into the adjacent Bristol City Council area.

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- The two Severn Bridges are prominent to the west beyond the area. Several powerlines and supporting towers crossing the area are also prominent.

Natural Influences

Geology, Landform and Hydrology

The geology of this area is predominantly alluvial, including alluvial gley soils typical of the lowland Level landscape. This creates a flat, low-lying landscape, the topography generally below 10 metres AOD. Occasional outcrops of harder rock such as sandstone and Carboniferous limestone create outliers, such as at Ingst and Aust, which rise above the flat Levels forming small, isolated hills, at 25 metres to 40 metres AOD. Aust Cliff is a prominent feature on the western boundary facing the Severn Estuary and is designated as a Site of Special Scientific Interest (SSSI) and Regionally Important Geological Site (RIGS) for its exposed strata and rich fossil bed.

The LCA is contained to the east by the Severn Ridge and to the west is defined by the sea wall, with the Severn shoreline and estuary beyond. The sea wall comprises a grass-covered earth embankment up to 2m above the natural ground level and connects with the Binn Wall at New Passage. Flood defences have been a feature along the edge of the estuary for considerable time, with map evidence indicating the sea wall has been in existence since at least the mid-18th century.

A defining characteristic of this area is the pattern of man-made drainage ditches, locally called rhines. Some rhines date to medieval times, with other phases of construction during the Napoleonic era and First World War. These phases in land drainage reclaimed areas of marshland, to improve agricultural production. The pattern of rhines gives some indication of their date of construction, with the more regular patterns representing the most recent areas of drainage. The rhine system is controlled by sluices in the sea wall, which

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discharge into tidal pills and the Estuary beyond. In places, 'gryps' (comprising a linear shallow bank landform similar to ridge and furrow), provide drainage to the system of rhines. Several of the rhines are named on OS maps, indicating their significance, however many others have local names, contributing to the identity and distinctiveness of the area.

Within this very flat landscape, the railway embankment of the South Wales to London line (and to a lesser degree, road and overbridge embankments), form significant raised physical features which segment the Levels and are superimposed over the older drainage and agricultural patterns. Artificially raised ground at Berwick Farm landfill site in the south-east of the LCA comprises earth bunds reaching 20 metres above existing ground level, although these are well-integrated by mature vegetation.

Land Cover

Much of the Pilning Levels LCA is covered by a mix of small to medium, regular and irregular shaped pastoral fields, with occasional arable use. Fields are more variable and irregular in shape between Aust and Pilning. Boundaries are defined by clipped and overgrown hedges, with occasional mature trees or pollarded oak, willow and ash. In places, hedgerows are replaced by fencing. Ridge and furrow is a common but subtle feature evident within many unimproved fields within the Levels. Gryps created for field drainage are also evident, forming low banks which radiate from the centre of fields. Beneath the visible landscape the underlying soil layers are gradually laid down over time and are of significant archaeological potential, although much of the area is unsurveyed.

The vegetation structure is largely defined by the underlying linear pattern of rhines which flow towards the Severn Estuary. Small rectilinear woodland blocks with withy beds of hazel or willow coppice are common across the central part of the LCA, with occasional linear tree belts of alder and poplar. Linear tree and shrub planting also encloses significant lengths of the motorways, with tree blocks around junctions, embankments and overbridges. At the Western

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Approach Distribution Park, a framework of rhines, ponds, and amenity planting have replaced the former agricultural landscape structure.

Small areas of common land fringe the rural lanes and farmsteads, often in the form of grass verges. Small orchards are scattered throughout the rural area, typically associated with farms.

Berwick Farm landfill site (now inactive) lies in the south-east of the LCA. Following completion of landfill operations, a raised landform has created a number of broad hills up to 20 metres above the existing ground level.

Much of the southern part of the character area is covered by an extant 1957/8 planning permission for a range of industrial related uses. and is defined in policy as the Severnside Enterprise Area. This is an area of ongoing development and redevelopment for a range of warehousing, industrial and energy generation uses.

Photo 2: Estuary edge salt marsh habitat near Old Passage, with views to the Prince of Wales Bridge and South Wales hills.



Biodiversity

The mosaic of grassland and pastoral farmland with woodland, watercourses and scattered ponds, connected by wildlife corridors including rhines and hedgerows make the Pilning Levels an important habitat for a diverse range of species. The incorporation of woodland, rhine and other habitat areas and corridors in the early phases of the development at Western Approach Distribution Park ensures continuity of habitat through this area.

The Pilning Levels include 100 hectares of woodland scattered across the area, mainly represented by small copses including orchards, with a larger area of woodland located within the eastern extent of the area. Key species likely to be associated with the broadleaved woodland include bats and dormice both of which are present across the District and are UK priority species with associated Biodiversity Action Plans (BAP).

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The numerous watercourses (including rhines) that cross the landscape support a diverse range of species, from aquatic macro-invertebrates to fish and water voles. Ponds and pools within the area support amphibians such as great crested newts (a European Protected Species). Several of the rhines (including Impool, Middle and Upper Compton, The Pill and Olveston Mill rhines) are designated as Sites of Nature Conservation Importance in recognition of the significance of these habitats for flora and fauna, and for the connectivity provided by the network of hedgerows and rhines. The diverse mosaic of grassland habitats (including neutral, calcareous and marshy grasslands), some of which are designated as SNCIs. The grasslands support a range of invertebrates which in turn provide a food source for mammals including bats.

The majority of agricultural land use within this area is pastoral farmland with small areas in arable use. The former provides roosting and foraging opportunity for the overwintering birds associated with the Severn Estuary, including those associated with its international and national designations. The arable farmland provides ground nesting and winter stubble provides foraging opportunity for ground nesting farmland birds, including those listed as Globally Threatened Red listed species. Large numbers of over-wintering birds drawn to the Severn Estuary are a seasonal feature of the Levels, both in the fields and overhead.

South Gloucestershire Strategic Green Blue Infrastructure Corridor A (Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)) covers the majority of this LCA, encompassing the wetland strategic network and habitats associated with the Severn Estuary.

Cultural Influences

Land Use and Time Depth

The continual pastoral land use of the Levels since medieval times has resulted in limited ground disturbance and as such, the archaeological value and content of the area is largely unknown, however the peat within the Levels may contain

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evidence of early prehistoric activity, which could be of considerable significance, due to its national rarity.

The rhine drainage pattern, linked to the tidal pills, is essential to the agricultural viability and biodiversity of the area, maintaining the ground water level below that of the adjacent fields and providing aquatic habitat.

Settlement and Infrastructure

Settlement comprises a dispersed pattern of small villages and hamlets, with some parts across the central, eastern and northern area relatively unpopulated, with few roads. Settlements are typically developed along linear routes as at Easter Compton, Pilning, Redwick, New Passage, and Severn Beach. Aust and Ingst are compact nucleated settlements located on higher ground, whilst Northwick is located on the Levels. Isolated farmsteads are scattered at frequent intervals within the Levels, often on the edges of small commons, surrounded by rhines and connected by a network of minor roads and lanes.

The settlements on the western boundary have diverse form and character, reflecting a number of development phases. The older settlements of Aust, Ingst and Northwick comprise clusters of Pennant sandstone farms and cottages, with churches at Aust and Northwick. The linear village of Easter Compton, comprising Pennant sandstone, brick and rendered houses, extends onto the lower slopes of the Severn Ridges. Severn Beach and Pilning owe part of their growth to the railways, with Severn Beach (once a popular beach resort) comprising a regular pattern of mid to late 20th century brick housing and a couple of static caravan parks. Pilning has a dense pattern of stone, render and brick houses, clustered at road intersections. New Passage and Redwick comprise a linear pattern of Pennant and Old Red Sandstone cottages, large houses and older brick houses. Two isolated linear groups of brick terraced cottages lie to the south-east of Pilning along the B4055.

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To the south-east of Severn Beach, large-scale, light-coloured warehouse buildings at the expanding Western Approach Distribution Park cover extensive areas, extending southwards to the large industrial complex at Avonmouth (within the City of Bristol Authority area). A small former industrial estate (now redeveloped as Whale Wharf Business Park) is located adjacent to the sea wall at Littleton Pill, in an isolated location to the north-west of Littleton-upon-Severn. The site comprises a compact cluster of office buildings and small pools (the site of the former Littleton Brickworks).

Built structures along the estuary edge include Aust Motorway Services comprising a hotel, car park, and petrol station. The old service station building forms a large white rectangular building with low roof, overlooking the estuary on the edge of Aust Cliff. Further south, the Binn Wall concrete and stone sea wall between New Passage and Severn Beach dates from the early 17th century, possibly earlier. It connects to the grass embankment sea wall further up the shoreline.

The M4, M48 and M49 motorways all cross the area, largely on embankments, segmenting the rural landscape and continuing across the Severn Estuary over the two Severn Bridges (the Severn Road Bridge, and the Prince of Wales Bridge). The A403 runs north to south, partly along the edge of the Estuary, connecting the M48 to Avonmouth in the south. Elsewhere, a network of lanes and minor roads cross the landscape, including the B4055 which connects Easter Compton to Pilning. Many of the minor lanes connecting inland villages or hamlets terminate at the estuary edge. The London-Swansea (South Wales to Bristol) railway crosses the area east to west, on embankment to Pilning Station, before passing into a deep cutting to enter the Severn Tunnel.

An extensive network of public rights of way enable recreational access to the landscape, often following field boundaries between settlements, although some areas (particularly in the south) are devoid of coverage. The Jubilee Way long distance footpath crosses the area from west to east from Littleton-upon-Severn, linking the Severn Way (which runs along the estuary edge) to the Cotswold Way in the east of South Gloucestershire. One of a series of Circular Rides makes use of both rural highways and public rights of way, running extensively throughout the area. National Cycle Network Routes 4 (London to

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Fishguard) and 41 (Bristol to Rugby) follow cycle paths and rural lanes through the LCA. The Wave surf centre is located to the north-east of Easter Compton but is well-integrated by surrounding vegetation.

Photo 3: Aust Village, the tower of St Johns Church forming a local landmark.



Perceptual Influences

Visual Character

The Piling Levels comprise a flat, semi-enclosed to fairly open lowland area, with frequent views eastwards to the Severn Ridges and more distant views north-westwards, towards the Severn Estuary, South Wales and the wooded skyline of The Forest of Dean. Longer distance views south-west to the Exmoor coastline are possible from higher ground in clear weather. Slightly elevated

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vantage points at Aust, Ingst and along the sea wall enable views of the estuary itself and the islands to the south-west. The rural backcloth of the Severn Ridges to the east providing visual containment and reinforces the strong rural character, its rising slopes containing very limited built development. The ridges of South Wales and the Forest of Dean to the west have slightly less influence, separated by the wide estuary, but nevertheless, provide a backdrop and skyline in views to the west. North of Aust, the Severn Ridge and the sea wall combine to contain a narrow strip of low-lying land, creating a slightly more enclosed area with a visually remote character. Further south, the easterly Severn Ridges and scarp edge form a prominent backdrop, emphasising the flatness and expansiveness of this area.

The area is a largely rural, agricultural landscape, with a simple vegetation structure comprising predominately clipped hedges, some overgrown, with frequent scattered mature hedgerow trees. The low hedges allow some middle to long distance views, with mature hedgerow trees providing some enclosure, structure, visual texture and depth to views. The regular, angular pattern of rhines (more irregular and curvilinear to the south and west of Ingst) has significantly influenced the landscape structure, their position and form emphasised by the hedgerows and the varying textured vegetation which follow them. Ridge and furrow field patterns and 'gryps' form subtle features within many of the pastoral fields and are most visually apparent on the sloping ground of the outlier hills, although they are present widely within the unimproved pastoral land.

Centrally and towards the eastern boundary, linear woodland and frequent rectilinear small woodland blocks and withy beds, formally arranged within the regular rhine pattern, are particularly evident. Here, woodland forms a prominent focus within views (limiting wider views), comprising a dense vegetation mass and notable vertical element, contrasting with the flat landform and generally lower vegetation structure elsewhere.

Locally distinctive features of the Levels' landscape include mature pollarded trees, open rhines and broad grass verges of common land along rural lanes and scattered small orchards near farms.

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The older, small-scale, settlement pattern of traditional villages, hamlets and farmsteads is generally well-integrated within mature vegetation. In the north, the absence of modern settlement and infrastructure, limited road access, and strong vegetation framework creates a perception of remoteness with a strong sense of place. In contrast, the villages of Severn Beach and New Passage comprise areas of more recent regular dense settlement, often with limited integration along their edges. These villages are particularly prominent within views from rights of way along the sea wall and in longer views from the Estuary warfts in the adjoining character area (LCA 21). The Bin Wall sea defences in this locality form a hard structure and stark boundary between this area and the Severn Shoreline and Estuary. The grass-covered earth bank which forms extensive sections of the sea defence creates a strong linear 'horizon' within local views from the Levels in the immediate vicinity and a visual barrier to views of the Estuary and shoreline. From a greater distance, the adjacent field vegetation provides visual screening of the embankment. The Severn Way National Trail runs along the sea wall for significant lengths and affords panoramic views east and west across the adjacent landscape and estuary, including to the Severn Bridges.

The outliers on which Aust and Ingst are located and the adjoining low bluffs and hills (within adjacent LCA 18: Severn Ridges), including Cowhill, Red Hill, Catherine Hill and Spaniorum Hill, form distinctive landform features in views across the flat landscape. The church at Aust forms a local landmark, visible above the adjacent vegetation, with large modern agricultural sheds at Ingst locally prominent due to their open setting.

Open views across the landscape are possible from elevated ground, such as the low hills at Aust and Ingst, the surrounding Severn Ridges, motorways, overbridges, local roads and Severn Bridges across the Estuary. There are extensive views across this LCA from the elevated Severn Ridge.

Motorway overbridges and embankments (including the railway embankment) form prominent local features, given their scale, elevation and landform profile, introducing artificial features within the flat and largely undeveloped Levels. Maturing woodland planting helps to reduce the prominence of the motorway and its structures and provides some continuity with the wider rural vegetation

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pattern. Although traffic movement and noise is locally prominent, wider effects upon the Levels is reduced by outlying raised land and the intervening vegetation.

The two Severn Bridges (in adjoining LCA 21: Severn Shoreline and Estuary) contribute to regional identity and form prominent and distinctive landmarks within occasional middle-distance and local views from the Levels, from where these large structures are seen against the expanse of open sky. Some 2km north of this area, on the edge of the Levels, Oldbury Power Station forms a large-scale structure, highly prominent on the edge of the Estuary and Levels and seen in close proximity to the lower hills of the Severn Ridges within views north from Aust, Ingst and the Levels.

The expanse of the Severn Estuary, although not visible from the majority of inland views, does reflect light and provides some 'lightness' to the edge of the area.

The southern part of the area is heavily influenced by the extensive pattern of major road and rail infrastructure radiating from New Passage, and the evolving industrial and warehouse structures at Severnside. The Avonmouth Works continuing south beyond this character area to Avonmouth, including the Seabank Power station with its tall chimneys and steam clouds. Wind turbines have become increasingly prevalent in this landscape. The various industrial features dominate open views to the south and west, often dwarfing the existing relatively small-scale landscape structure of hedgerows and trees. Larger structures are also visible from South Wales in distant views. The major road corridors introduce visible movement and noise into the area.

The light coloured, large-scale distribution sheds adjacent to the M49 at Western Approach Distribution Park are prominent and clearly visible against the darker landscape framework when viewed from the Severn Ridges and are similarly prominent within low-level views, the separate buildings appearing to coalesce into a continuous built form. This development incorporates ponds, rhines, footpaths and bridleways, as well as woodland and avenue planting included as key features during the early phases of development. The chimney

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at Cattybrook Brickworks (within adjacent LCA 18) is evident in views east to the edge of the Severn Ridges but is of considerably smaller scale in comparison with the industrial development on the levels.

Powerlines and pylons crossing the area form significant vertical and linear elements, contrasting with the flat landscape and undisturbed rural framework to the north and east of Aust. Elsewhere, their visual prominence is dependent upon the viewing location and degree to which foreground and middle-distance vegetation (varying from clipped hedges to overgrown hedges and tree belts) limit or focus views.

Overhead powerlines on steel pylons cross the landscape along several prominent corridors, north to south and east to west, while the National Grid sealing end compound is tucked in below the east side of the hill at Aust.

Photo 4: View west from Spaniorum Hill across industrial infrastructure and warehouses at Severnsde Works and Western Distribution Park



Tranquillity and Dark Skies

The LCA experiences high levels of light pollution in the south, associated with the extensive industrial and commercial development south of New Passage at Severnside Works and Western Distribution Park across the south of the LCA. There are some areas of darker skies in the north of the LCA, away from settlement and transport corridors.

Levels of tranquillity are generally low across the LCA, particularly in the south as a result of the extensive industrial development and presence of several major transport corridors. Occasional small pockets of higher tranquillity exist across the more rural Levels and in the north of the LCA near Cowhill.

Visually Important Hillsides

There are no Visually Important Hillsides located within this LCA. However, it is flanked along its eastern edge by the Severn Ridge (located within LCA 18), its distinct form and elevation defining a marked change in character from the low-lying levels and estuary and providing a visually prominent landscape feature in views from the west.

Further details are provided in **Annex I: Visually Important Hillsides**.

Strategic Viewpoints

Two Strategic Viewpoints are located within this LCA. They are:

- SVP 1: Old Passage: Provides a panoramic view taking in the notable landscape features of the Severn Estuary and hills of the Wye Valley and South Wales, and the landmark features of the Severn Bridge and Prince of Wales Bridge.
- SVP 28: Severn View viewpoint: Provides a panoramic view and takes in the notable landscape features of the Severn Estuary and the hills of the

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Wye Valley and South Wales, and the landmark features of the Severn Bridge, Prince of Wales Bridge and Oldbury Power Station

Strategic viewpoints located along the Severn Ridge (LCA 18) also offer views into and across the landscape, including from SVP 4: Old Down, SVP 7: Spaniorum Hill, SVP 15: St Arilda's Church (Oldbury-on-Severn) and SVP 21: View across Yate Vale and Rangeworthy.

Further details are provided in **Annex II: Strategic Viewpoints**.

Evaluation

Key Sensitivities and Value Features

- Small to medium-scale mixed agricultural fields contained by a strong hedgerow framework that reinforces the local landscape pattern.
- Rhines, hedgerows, withy beds, orchards, scattered mature trees and pollards add texture to the landscape and contribute to the sense of place.
- Semi-natural habitats including neutral, calcareous and marshy grassland across the levels which provide visual texture and support a diverse range of flora.
- The strong visual influence of the estuary in views to the west.
- The rural character in the north of the LCA, retaining much of its historic landscape pattern, agricultural land use, settlement and character.
- Extensive network of public rights of way including the Jubilee Way promoted route enable recreational access to the landscape.

The Changing Landscape

The following section sets out the changes and pressures to the Pilning Levels LCA.

Climate Change

- This area is subject to pressures related to power generation including existing gas and nuclear power stations as well as existing and potential renewable energy development (including wind turbines and solar arrays).

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Renewable energy development is evident in the landscape with a solar farm near Severn Beach, as well as several individual wind turbines at Western Approach Distribution Park.

- Changes in sea level as a result of climate change may result in increased frequency of storms and flood events.

Climate Emergency and Nature Recovery

- The past loss of mature hedgerow trees through Dutch Elm Disease was particularly widespread across the Levels. As a result, and despite the existing vegetation framework, the character of the area is now significantly more open and windswept than in the middle of the 20th century.
- The traditional practice of regular pollarding of hedgerow trees (with concentrations to the north and south of the area) and coppicing of withy beds, is in decline, with the potential long-term loss of these distinctive features.
- Well-maintained farm orchards form distinctive and ecologically important features of the area. However, some are ageing in structure with potential for further loss of this feature.
- New woodland planting as part of the Forest of Avon, at Lower Knole Farm below the Severn Ridge, occupies an area of almost 60 hectares. As it matures, the woodland will contribute significantly to the landscape framework and habitat diversity, which otherwise comprises small blocks and linear tree planting.
- The Avonmouth Severnside Enterprise Area (ASEA) Ecology Mitigation and Flood Defence Project along the estuary edge near Old Passage will create 80 hectares of wetland habitat as part of the development. This will provide wetland habitat for a range of species, as part of the West of England's Nature Recovery Network [\[See reference 1\]](#).

Land Use and Cover

- The introduction of fencing, stable and other structures and uses associated with horse keeping around some settlements is eroding the strong vegetation framework of tree-lined hedges, pollarded trees, linear tree belts, ditches and rhines.
- The Western Distribution Park development has retained some of the rhine system and associated vegetation, as well as incorporating new tree planting and wetland habitat creation, which provides ecological value and connectivity, and supports visual integration of the buildings in more distant views.
- Remnant ridge and furrow field patterns, an important and distinctive historic feature of this landscape, would be easily damaged by a change in land use from pasture to arable farming.
- The small-scale nucleated pattern of settlements and farmsteads which are well-integrated within the landscape are sensitive to change including from new commercial and residential development, as well as land use changes.
- Land raising for sea wall defences, rail and motorway embankments and the Berwick Farm landfill site, have formed significant 'artificial' landforms which physically and visually influence the otherwise flat landscape.
- Land raising for future roads and buildings has the potential to disturb the rhine system, as is evident from previous development.
- Some lengths of hedgerow are degraded, unmanaged or replaced with fencing. A decline in the management of hedgerows has the potential to quickly erode the landscape infrastructure.

Development

- The decommissioning of the existing Oldbury Power Station (located in the adjacent Oldbury Levels character area) is likely to result in visual changes to the reactor buildings and surrounding structures. Potential redevelopment of a new nuclear power station on the site is likely to

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increase the prominence of built form in open views northwards into the adjacent Oldbury Levels character area (LCA 19).

- The semi-enclosed to open character of the Levels landscape is sensitive to the continued introduction of large-scale built elements which, due to their massing and height, are visible over long distances. Such development is replacing the traditional landscape structure and rural character across the southern part of this character area.
- Expansion of the Western Approach Distribution Park and the substantial warehouse development east of the M49, including intrudes into views from Easter Compton, and sits in stark contrast to the remnant historic rural tract of land at Hallen Marsh, which provides visual relief and habitat value. A recently approved 186,000 m² development (known as Axis Works) will further contribute to the industrial character of the landscape.
- Given the anticipation of future change, the management of remaining open land and vegetation is often limited within this area giving a neglected feel to areas of land to the south and west of the A403 and M49.

Guidance

These guidelines recommend how the landscape can be managed to ensure future change respects the local character and should be read in conjunction with the overarching management strategy objectives of the South Gloucestershire Landscape Character Assessment as set out in Chapter 4.

Landscape Strategy

Landscape Management

- Ensure that new development and present and future land use practices respect and conserve remaining historic landscapes, field systems and areas of ridge and furrow.

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- Protect and enhance the character and quality of the setting, and views of Aust Cliff, the Grade 1 listed Severn Road Bridge and Grade II* listed St Arilda's Church, together with the churches of Easter Compton and Oldbury.
- Manage the historic field pattern, including through willow pollarding, management of withy beds and tree belts, to ensure long term conservation of these key features for their cultural and biodiversity value.
- Maintain and restore the extensive drainage network of rhines, gryps, pill, and sea wall, and their associated landscape features to retain the historic landscape character of the levels.
- Secure a robust and integrated landscape and ecological framework that is adequate to absorb large-scale new buildings and creates a new high-quality landscape for the Severnside development area.
- Preserve the tranquillity and relatively undeveloped character of the rural landscape north of the M48.

Ecology/Biodiversity Management

- Conserve and extend overwintering habitat for species associated with the international and national designations on the Severn Estuary including the creation of further high tide roosts.
- Seek opportunities to restore and recreate traditional orchards to enhance landscape character and biodiversity value.
- Conserve and enhance tree belts, hedgerows and other traditional landscape features, such as withy beds which are a distinctive feature of the LCA.
- Seek opportunities for wetland creation (including scrapes) and rhine habitat enhancement including measures to control pollution.
- Protect the aquatic and associated terrestrial habitat of Great Crested Newts, and water voles, avoiding fragmentation of existing areas.

Development Management

- Ensure that any new development respects the distinctive character of the levels associated outcrops of higher ground in its central and northern part of the character area.
- New development materials and the colour of finishes to be selected to ensure maximum integration with the character and appearance of the landscape, waterscape, and skies, including in views from high ground, from the levels, and from and across the estuary.
- Limit the spread of industrial development beyond the 1957/58 extant permission area boundary which separates industrial land use from the remaining rural landscape of the Pilning Levels.
- Ensure renewable energy developments are sensitively designed and sited to minimise their impact on visual and landscape character, also considering cumulative effects that will be widely visible across the flat low-lying landscape. Use existing vegetation to screen new developments where appropriate.

LCA 21: Severn Shoreline and Estuary

The Severn Shoreline and Estuary landscape character area (LCA) is a flat, open and exposed linear landscape of warths, tidal wetlands, mudflats and rock. The large expanse of the estuary and changing tides, is its most dominant feature.

Photo 1: View north-west across the estuary from Severn Beach, the Prince of Wales Bridge a prominent landmark feature spanning the water.

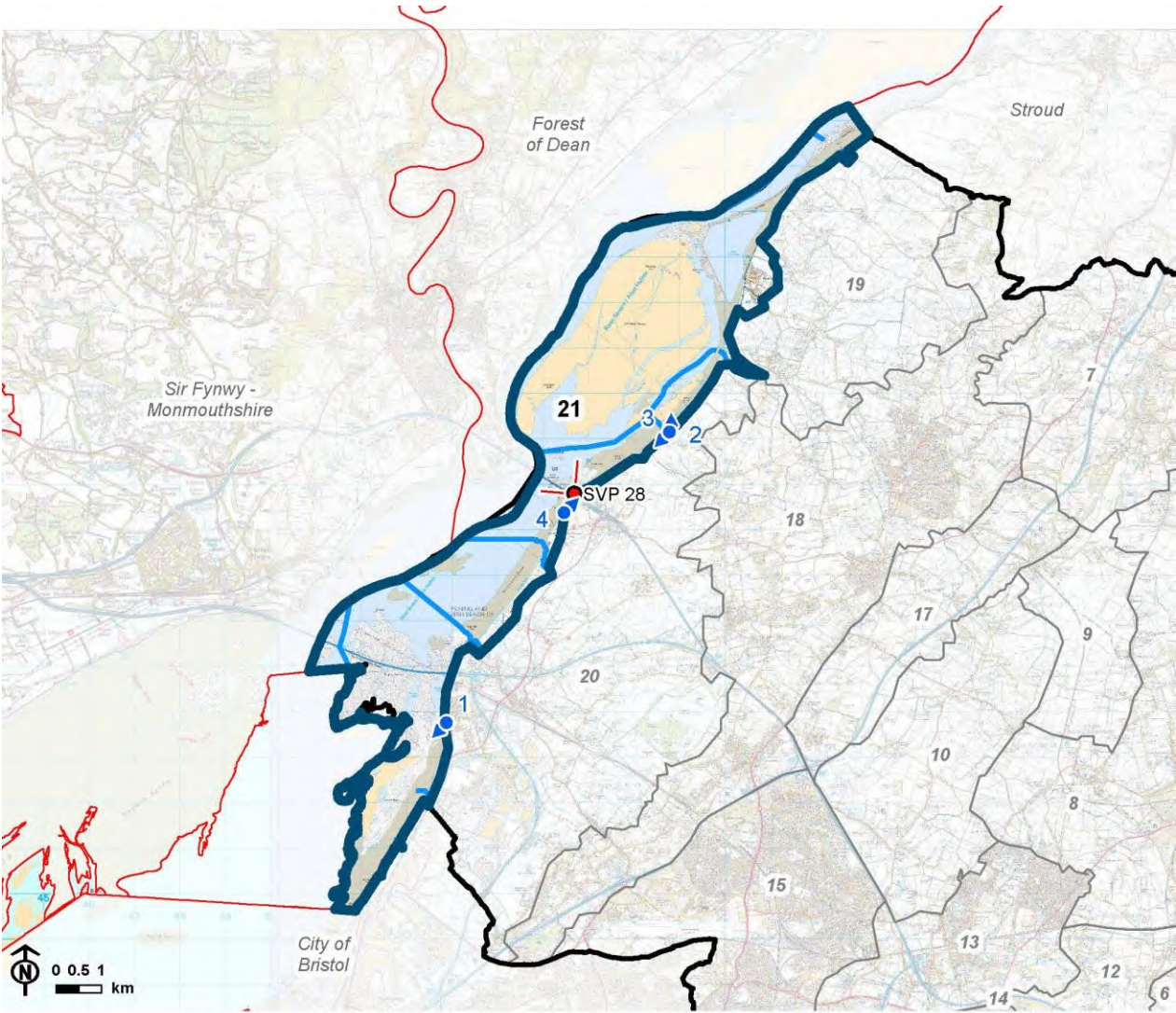


Location







The Severn Shoreline and Estuary landscape character area is located along the western edge of South Gloucestershire. It extends from Avonmouth in the south, north to Oldbury Power Station and beyond. It extends west to include a large proportion of the Estuary. Its northern and southern limits follow the South Gloucestershire Authority boundary, although the character of the shoreline and Estuary continues beyond the boundary. The western limits also follow the South Gloucestershire Authority boundary, which takes the approximate centreline of the Severn's navigable river channel. The eastern boundary follows the defined sea wall, which runs along the length of the Estuary, marking the change between the unenclosed warths, tidal shoreline and estuary and the enclosed agricultural fields or industrial areas on the adjacent Levels. The sea wall merges centrally with Aust Cliff and outlier.

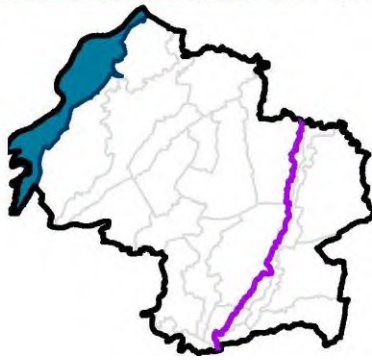
Estuary, Shoreline & Levels LCT

Figure 8.8: Location and Landscape context of LCA 21: Severn Shoreline and Estuary



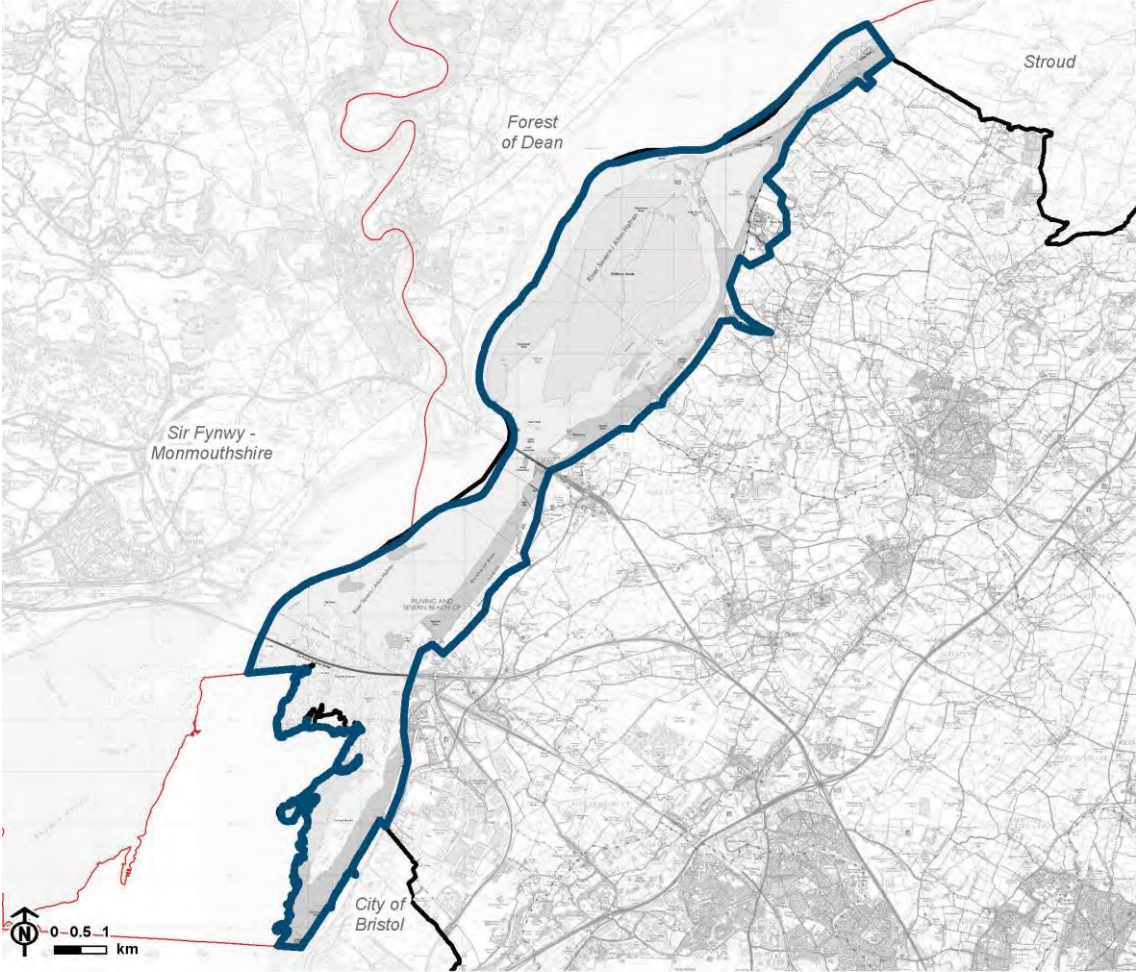
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-  LCA 21: Severn Shoreline and Estuary
-  Neighbouring LCA
-  Council boundary
-  River
-  Photograph location and direction
-  Strategic viewpoint and angle





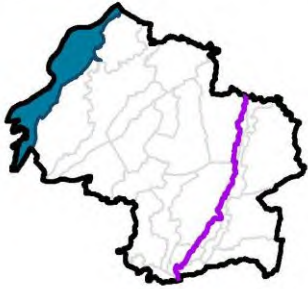
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Figure 8.9: Development and Heritage context of LCA 21:
Severn Shoreline and Estuary



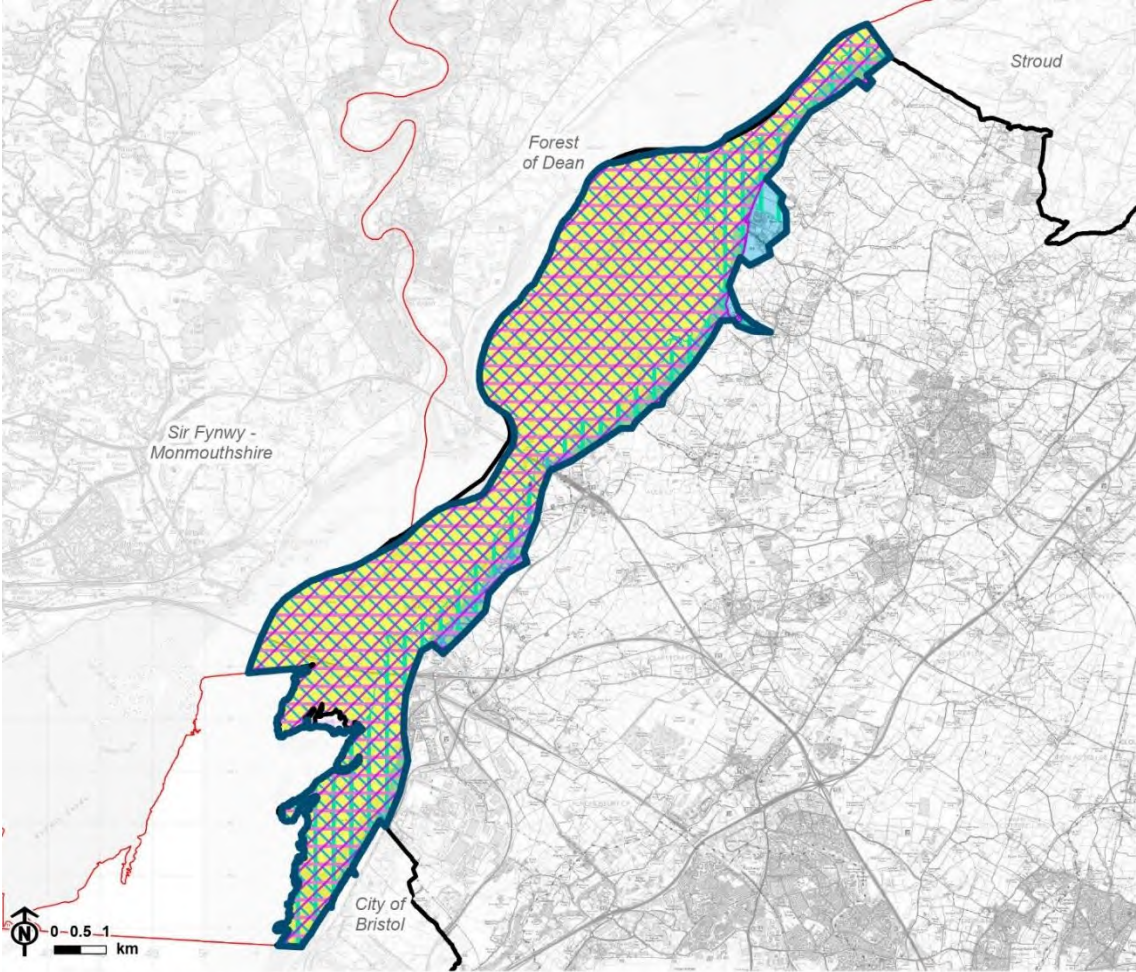
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-  LCA 21: Severn Shoreline and Estuary
-  Council boundary



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Figure 8.10: Ecology and Biodiversity context of LCA 21: Severn Shoreline and Estuary



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- LCA 21: Severn Shoreline and Estuary
- Council boundary
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- Ramsar site
- Site of Nature Conservation Interest
- Regionally Important Geological Site
- Wetland Strategic Network
- Important hedgerow



Landscape Description

Key Characteristics

- Open and exposed landscape of the tidal estuary, with a textured intertidal zone of bed rock, shingle and rivuletted mudflats/ sandflats, edged by a low mud cliff, with salt marshes (warths) beyond, contained to the east by a sea wall.
- The folded bed rock and fossil bed at Aust Cliff forms a prominent landform and important geological feature that is designated as a SSSI.
- Constantly changing characteristics of the shoreline, result from the high tidal range of the Severn Estuary (second greatest in the world).
- Tidal pills meander across the warths to the estuary from sluice gates set within the sea wall.
- The Severn Estuary and shoreline is internationally designated for a range of habitats and species, including significant numbers of over-wintering wildfowl that also roost and forage in the adjacent Oldbury and Pilning Levels character areas.
- Warths are grazed in places. A linear woodland along the low outcrop of Aust Cliff is prominent.
- Remnants of putcher ranks (wooden frames designed to hold conical fishing nets) associated with historic salmon fishing industry are an important feature on the estuary edge.
- The warths and mudflats are largely undeveloped except, for a small number of buildings on the edge of the warths.
- Land-based industrial influences from adjacent LCAs in the south contrast with tranquil, rural land and seascapes in the north.
- Limited formal boat access to the estuary from the shore, other than via a slipway at Thornbury Sailing Club and at Severn Beach.

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- Expansive views over the estuary, Bristol Channel and its islands to South Wales and the Wye Valley/Forest of Dean Ridges to the west, and to the Severn Ridges to the east. The Exmoor coastline is occasionally evident in views to the south-west.

Natural Influences

Geology, Landform and Hydrology

The geology of this area is predominantly alluvial, with alluvial gley soils, peat and occasional alluvial gravel fans typical of the Severn Estuary floodplain and lowland Levels. Geological layers can be clearly seen in transect across the gently sloping intertidal zone in the layered sandstone and Carboniferous limestone outcrop at Aust Cliff. Designated as both a Site of Special Scientific Interest (SSSI) and Regionally Important Geological Site (RIGS), Aust Cliff defines a short section of the eastern boundary and forms a prominent geological exposure and fossil bed. The flat, low-lying landscape lies generally below 10 metres AOD, with Aust Cliff forming a large and prominent outcrop at almost 2km long, rising gradually northwards to 40 metres AOD.

The sea wall defines much of the eastern LCA boundary. It comprises a man-made grass covered earth embankment up to two metres above the adjacent natural ground level and connects with the Binn Wall sea defence at Severn Beach. Flood defences have been a feature along the estuary edge for considerable time, with evidence of land reclamation since Roman times. Map evidence indicates that the wall has been in existence since at least the mid-18th century. The sea wall forms a prominent and defining physical feature along the shoreline, protecting the agricultural land of the Levels to the east as well as the developed areas to the south. Historic land drainage and flood protection enabled the productive agricultural use of the adjacent Levels' landscape and influence many of the characteristic features of both the Levels and warths today.

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The linear warths to the west of the sea wall vary in width and are occasionally dissected by tidal pills, which form natural meandering channels, fed by rhines from the adjacent Levels. Water from the rhines is controlled by sluice gates set within the sea wall. Oldbury Pill is a notable feature, extending some way inland to Oldbury-on-Severn village.

Land Cover

This linear character area has distinct and varied zones of land cover, the visibility of which is dominated by the constantly changing water levels in the estuary, which has the second highest tidal range in the world (12 metres at mean spring tide). The intertidal zone constantly changes with the tide, ranging from an expanse of water several kilometres wide at high tide, to a broad and irregular coastal strip of rivulleted mudflats and sandflats, shingle beach and exposed bed rock at low tide. Tree cover is generally sparse along the shoreline, although the lower section of Aust Cliff is heavily vegetated with trees. The existing Oldbury Power Station and associated former lagoons are bounded by tree belts along with a mosaic of woodland, traditional orchard and meadow habitats to the east.

The landward edge of the mudflats is clearly defined by a pronounced and undercut low mud cliff, marking the height of the mean high-water level. Beyond this are flat, open warths (salt marshes), grazed in places, which extend inland to the sea wall. This area is seasonally flooded under extreme high tides. An extensive area of scrub occupies a strip of warth in the south, adjacent to the chemical works. At high tide the largest drainage channels (Hill Pill and Oldbury Pill) form meandering open channels of water with mud banks. There are smaller pills at Littleton, Aust and New Passage.

Photo 2: Coastal floodplain grazing at Whale Wharf, with views north towards Oldbury Power Station



Biodiversity

The estuary provides a range of habitats including mudflats, sand banks, rocky platforms and salt marsh, supporting a diverse range of species. These habitats are particularly important for the significant numbers of over wintering waterfowl that they support. The estuary is also important for the populations of invertebrates and migratory fish.

The estuary's overall ecological importance depends on its size, and on the inter-relationships between the intertidal and marine habitats and its fauna. The ecological importance of the Severn Shoreline and Estuary is internationally, nationally and locally recognised through its designations as a Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar Site, Important Bird Area (IBA), Site of Special Scientific Interest (SSSI) and a Site of Nature Conservation Interest (SNCI). Although the silt lagoons at Oldbury Power

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Station are SNCI-designated, Lagoons 1 and 2 to the north of the existing power station have dried out, with one scrubbing over and the other in agricultural use and as such they no longer provide the significant wetland habitat for which they were designated. However, at the time of writing Magnox (the nuclear decommissioning authority) has proposed to undertake works to retain water at Lagoon 3, south of the existing power station, with the objective of recreating the wetland habitat.

The ongoing Avonmouth Severnside Enterprise Area (ASEA) ecology mitigation and flood defence scheme extending from Lamplighters Marsh in the south to Aust Cliff in the north has created 80 ha of new wetland habitat, with two new wetlands at Hallen Marsh and Northwick.

South Gloucestershire Strategic Green Blue Infrastructure Corridor A (Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)) covers the majority of this LCA, encompassing the wetland strategic network and habitats associated with the Severn Estuary.

Cultural Influences

Land Use and Time Depth

Through tidal erosion and deposition cycles, the intertidal zone has revealed archaeological remains and periods of human activity within deposited layers. Much of this buried landscape remains undisturbed and unexplored. This area, together with the warth and adjacent Levels, is therefore of high archaeological potential, the peat soils and waterlogged ground providing good conditions for preserving remains.

The current Binn Wall sea defence was constructed in 1815, with a much earlier sea defence originating from the early 17th century. Putter ranks (irregular lines of timber stakes planted into the mudflats to catch salmon) dating from the 18th and 19th century are still evident to the north and south of Littleton Pill.

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This traditional local fishing technique has now largely disappeared along the Severn. The visibility of these stakes and the slipways are determined by the tide.

Settlement and Infrastructure

The LCA is very sparsely settled, with a small number of dwellings to the north of the existing Oldbury Power Station close to the sea wall, a cluster of dwellings at Old Passage, and a small number of deserted farmsteads near Severn Beach. To the south, the settlements of New Passage and Severn Beach (within the adjacent LCA 20 Pilning Levels) are enclosed and protected by the Binn Wall. Here, the sea defences comprise rock armature and a stone/concrete wall which merge with the shingle beach, in place of the more extensive grass embankment sea wall elsewhere.

To the north, the existing Oldbury Power Station forms a significant structure located on the edge of the intertidal zone. This power station complex comprises the two distinctive 60m high circular blue and white striped reactor buildings that are surrounded by a complex of lower buildings that are subject to a programme of demolition as decommissioning progresses. The Nuclear Decommissioning Authority anticipates final site clearance of the existing power station complex in the 2080's, although there may be potential for elements of its associated infrastructure and/or brownfield land to become available for reuse in association with development on the designated nuclear new build to the north. Such reuse could have the benefit of reducing the footprint and impact of nuclear new build. To the north and south are large former settlement lagoons that are no longer in use, two are scrubbing over and the northerly most is under agricultural use. Overhead powerlines radiate out from the power station across the Levels. To the south, the small-scale sealing-end compound is tucked in below the hill east of the cliffs at Aust, limiting its visual prominence in views along the sea wall.

Other structures extending into the intertidal mudflats include an elevated pier giving access to an electricity pylon tower near Old Passage, and a derelict slipway (the former ferry crossing) which provided a connection with South

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Wales before the Severn Bridge was constructed. A few navigational beacons are located along the shore and within the Estuary to the north of Oldbury Power Station. These include two small land-based metal-latticed towers, estuary way-markers on masts, and a buoy demarcating the tidal reservoir. The Severn Bridge and Second Severn Crossing link Wales and England and form large, elevated structures carrying the M4 and M48 across the Estuary.

Access to the estuary from the shore is limited, with the strong and complex tidal conditions and currents limiting the potential for leisure access. Thornbury Sailing Club, boathouse and boatyard adjacent to Oldbury Pill, includes a cluster of sailing dinghies stored on land, as well as a slipway. Oldbury Pill forms the largest outlet into the Estuary and provides boat moorings. A slipway at Severn Beach, near the Binn Wall, also provides boat access, with public access to the shingle beach at New Passage.

The Severn Way recreational route runs north to south along the elevated sea wall for most of its length. This is joined by the Jubilee Way to the north of Aust and one of a series of Circular Rides to the north of Oldbury Power Station.

Photo 3: View across the intertidal zone towards the Severn Bridge and the Estuary, with Chepstow visible on the horizon.



Perceptual Influences

Visual Character

The Severn Shoreline and Estuary landscape character area is a simple, open and expansive area, strongly influenced by the physical and visual presence of the Severn Estuary, its tidal pattern, and weather conditions. Its open and exposed character is variably affected by industrial development within adjacent areas, which contrasts with the large tranquil rural landscape.

Views are dominated by the large-scale estuarine landscape of open water and textured, rivuletted mudflats, which continually change with the tide. The influence of the wind, tides and atmospheric weather conditions are a dominant

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element, affecting the character of the land/waterscape and texture of the estuary. South Wales, the Wye Valley and the Forest of Dean ridges form a prominent backcloth and coastline in views to the west, with the widening estuary and open expanse of the Bristol Channel, dotted with islands to the south-west. The distant headlands of the Exmoor coastline are sometimes evident in clear conditions, in long views to the south-west.

Views east from the warths are contained by the sea wall. The lack of visual connection with the adjacent Levels creates a sense of remoteness and isolation in places. In contrast, views from the elevated sea wall are panoramic across and along the estuary, also extending eastwards between the vegetation structure of the Levels, occasionally including distant views to the Severn Ridges.

The geological exposure of banded and heavily folded bed rock at Aust Cliff forms a visually dramatic feature. The prominent linear woodland along the southern low outcrop of the cliff merges with the field hedgerows and trees at Old Passage, to the east of the warth.

The intertidal mudflats are largely untouched by built features. Occasional putcher ranks (small timber structures) along the shoreline have an affinity with their setting and reflect the long history of human activity along the estuary edge. In contrast, the elevated pier, pylon and adjacent slipway at Old Passage form more prominent built features. Tidal pills with sluice gates set within the grassed earth bank of the sea wall are distinctive features along the warths.

The boat house and slipway of Thornbury Sailing Club form small built elements on the shoreline, largely screened from the estuary by the sea wall. The seasonal influx of moored sailing boats and their changing position, influenced by the tides, provides dynamic and locally distinctive feature within Oldbury Pill.

The two Severn Bridges which span this character area and the Severn Estuary are visually significant, framing distant views and reinforcing the large-scale of the Severn Estuary. They are nationally distinctive landmarks, giving this stretch

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of the Estuary a strong sense of identity. The original suspension bridge is a Grade I listed structure.

The perception of remoteness within the area and its rural characteristics, although extensive, are affected in places by the visual prominence of industrial buildings within the adjacent Levels, or by structures such as pylon lines passing over the area.

Settlement at Severn Beach is visually prominent adjacent to the foreshore, within long views along the warths, given the close proximity of development and very limited extent of vegetation in this exposed setting. Recent three storey housing towards the south of Severn Beach, in the adjoining character area, is considerably taller than the adjacent sea wall and, as a result, visually impacts on the local warth. Other properties located further inland within the Levels, are either screened behind the sea wall, or better integrated within a framework of hedgerows and trees.

The existing Oldbury Power Station in the north has a distinct large-scale, light coloured industrial block structure which is visually prominent within the northern extent of this area beyond Aust, from the Levels to the east and also from the Severn Ridges. Both the principal structures and the tidal reservoir and lagoons are also visible from the Wye Valley and Forest of Dean ridges on the western side of the estuary. The associated infrastructure including security fencing and sea wall/bund are further man-made elements which influence local character. The pale blue and grey striped finish to the 60m-high reactor buildings has some effect in reducing the buildings' massing in certain local views, dependent upon weather and light conditions.

To the south of the M49, large-scale industrial structures and Seabank power station (including towers and chimneys) are visually prominent, sited within the adjacent Pilning Levels (LCA 20) to the south. The Western Approach Distribution Park to the north-east of Severnside is evident in middle-distance views from the top of the sea wall between Severn Beach and Severnside, with the large-scale warehouse buildings visible above the adjacent vegetation framework.

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Further south, infrastructure associated with the Avonmouth Works (beyond the South Gloucestershire boundary) also contributes to the overriding industrial influence of the Levels and adjacent warths and estuary. To the north, these become progressively screened by intervening topography, including Aust Cliff and outlier hills.

All of these built features are visible from the Severn Way footpath, in particular from the Severn Road Bridges, from adjacent character areas to the east and from South Wales to the west, interrupting the openness and expansiveness of the estuary and shoreline.

The grass embankment of the sea wall forms a consistent, horizontal feature, defining the eastern edge of the warths and is significant in visually segregating the Severn Shoreline from the Levels and therefore maintaining the visual remoteness of much of this area. The grass cover integrates the landform with the warths; however, the level top of the embankment and constant slope profiles reinforce the man-made nature of this landform. The Binn Wall, in contrast, is a more prominent, utilitarian structure where visible from within the warths and estuary. More recently, the Avonmouth Severnside Enterprise Area (ASEA) ecological mitigation flood defence scheme has had a significant impact on this LCA. The project extends from Lamplighters Marsh in the south to Aust Cliff in the north and comprises a combination of flood embankments, precast concrete walling (in some sections with glass panels to maintain views of the Estuary) and sheet pile walls.

Photo 4: The exposed strata and intertidal vegetation at Aust Cliff SSSI.



Tranquillity and Dark Skies

A strong rural character and high levels of tranquillity are experienced in the north of the LCA, which is reduced in the south by industrial development on the shoreline and adjacent land around Severn Beach, Severnside Works, and Seabank Power Station, as well as traffic on the Severn Bridges.

Parts of the estuary and shoreline experience dark skies, particularly in the north. Light pollution is strongly associated with development, on both Severn Bridges and around Oldbury Power Station.

Visually Important Hillsides

There are no Visually Important Hillsides (VIH) located within this LCA. However, the Severn Ridges VIH (located within LCA 18) to the east has some visual influence, its distinct form and elevation defining a marked change in character from the low-lying levels and estuary and providing a visually prominent landscape feature in views from the west.

Further details are provided in **Annex I: Visually Important Hillsides**.

Strategic Viewpoints

There are no Strategic Viewpoints (SVP) located within this LCA, however several viewpoints in adjacent character areas offer views into and across the landscape, including SVP 1: Old Passage, SVP 6: St Michael's Church (Hill Court) and SVP 28: Severn View Viewpoint. The estuary is also visible from SVPs located along the Severn Ridge (LCA 18) and in long-distance views west from SVPs located along the Cotswold Scarp (LCA 4) .

Further details are provided in **Annex II: Strategic Viewpoints**.

Evaluation

Key Sensitivities and Value Features

- Simple, open and exposed landscape of tidal waters, rivulleted mudflats and low cliffs which provide a textured landscape pattern.
- Extensive estuarine habitats of national and international importance for the range of bird species they support, with numerous designations.
- Constantly changing characteristics of the shoreline, resulting from the high tidal range of the Severn Estuary
- Aust Cliff, important for its geological exposed strata and rich fossil bed.
- Strong sense of place with mudflats, grazed warths, tidal pill, the sea wall, Severn Bridges, and important historical features including remnants of putcher ranks.
- Strong sense of relative remoteness, tranquillity and dark night skies arising from the absence of modern development, especially in the northern part of the landscape.
- Expansive views across the estuary to South Wales and the Wye Valley/Forest of Dean Ridges beyond.

The Changing Landscape

The following section sets out the changes and pressures to the Estuary, shorelines and levels LCA.

Apart from the potential for development on the 150ha designated nuclear new build site north of the existing power station at Oldbury, the potential for change in this character area is likely to be limited to pipelines or proposals associated

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with water transport or recreation given the tidal nature and internationally-significant ecological value of much of this LCA.,. However, changes in the adjacent landward landscape character areas may impact on the estuary and shoreline character area. Given the flat topography of this and adjacent landscape areas, there is limited potential to absorb vertical built forms without altering the fundamental character of the more remote and undisturbed areas of the shoreline and estuary.

Climate Change

- The impact of climate change on sea levels, including increased storm frequency and sea level rise.
- The potential of the Severn Estuary to deliver renewable energy, with various proposals for tidal barrages and lagoons. Such measures have the potential to result in a substantial change to the landscape character and biodiversity of this character area.

Climate Emergency and Nature Recovery

- The Severn Estuary is important for migratory fish which are highly sensitive to changes to water quality and water levels within the estuary.
- Physical, visual and audible disturbance within the adjacent Levels or Estuary may impact upon the habitat, flight patterns or, indirectly, affect the quality of feeding grounds provided by the intertidal zones and estuary waters.
- The Avonmouth Severnside Enterprise Area (ASEA) Ecology Mitigation and Flood Defence Project [See reference 2] along the estuary edge near Old Passage has created around 80 hectares of wetland habitat as part of the development. This will provide habitat for a range of species, contributing to the wetland strategic network which forms part of the West of England's Nature Recovery Network [See reference 3].

Land Use and Cover

- The bridge abutments and piers associated with the construction of the Second Severn Bridge had some effect upon the local pattern of erosion and deposition, altering silting patterns and beach profiles.
- The visual influence of wind turbines in South Gloucestershire, Bristol, and South Wales extends widely across this character area, however their impact diminishes beyond the Severn Bridges.

Development

- Ongoing changes to the structures and land use associated with the decommissioning of Oldbury Power Station. A 150ha site is proposed in national policy for the development of a new nuclear power station on the site of the existing lagoons, extending into the Oldbury Levels (LCA 19). The large complex of new turbine halls, cooling structures and other facilities has the potential to have a significant impact on the character of the wider estuarine landscape, and the likely need for water access would result in substantial change to the foreshore, sea wall and Severn Way in this locality.
- Following the cessation of power generation in 2012, the decommissioning of the existing Oldbury Power Station is ongoing, with a programme of demolitions and construction of temporary facilities ongoing, and final site clearance anticipated in 2080. There may be potential for some brownfield land and infrastructure to be reused or redeveloped in association with nuclear new build and related development on the adjacent 150ha nationally designated site.
- Effects on landscape character and views across the estuary and the adjacent Oldbury Levels landscape can be expected to arise as a result of new nuclear and related development on the 150ha designated new build site to the north of the existing power station. The extent and significance of these effects will be dependent on the type and scale of nuclear and related development, the extent to which existing brownfield land and/or infrastructure on the existing power station site can be reused, repurposed or redeveloped and the effectiveness of landscape and biodiversity

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buffering to the adjacent areas, including to the adjacent and nearby biodiversity and heritage designations. There is also the potential for offsite effects arising from flood protection measures and any transport, logistics, emergency control and other facilities that may be required. For some technologies this could include a marine offloading facility.

.Development within the Safeguarded Employment Area (identified in the Local Plan) within the adjacent Pilning Levels (LCA 20) and promoted through the Local Enterprise Partnership has resulted in a significant increase in the extent of industrial infrastructure and commercial warehouses in this area.

Guidance

These guidelines recommend how the landscape can be managed to ensure future change respects the local character and should be read in conjunction with the overarching objectives of the South Gloucestershire Landscape Character Assessment, as set out in Chapter 4.

Landscape Strategy

Landscape Management

- Ensure that development and land use practices respect and conserve the archaeological features and historic features that reflect the long-term human activity and association with the River Severn and have special regard to the archaeological potential of the area.
- Have regards to the historic flood defences (sea wall embankment) and features associated with the protection and farming of the levels. Ensure that flood alleviation schemes preserve the grazing marshes, pills, and the distinctive character of the adjoining agricultural land.
- Protect the tranquillity of the landscape and estuary particularly in the north of the character area, and from its overlooking western side.

Ecology/Biodiversity Management

- Identify opportunities to enhance the features of the Severn Estuary European Marine Site, including wetland restoration and creation projects, for example at Northwick and Hallen Marsh.
- Seek to enhance habitat for the significant waterfowl populations and avoid impact on and/or disturbance to their habitat.
- Prioritise salt marsh expansion and creation as part of the response to future climate change and sea level rises to manage any shoreline retreat, coupled with opportunities for salt marsh grazing and wetland habitat restoration and creation.
- Seek opportunities to create managed retreat to alleviate flood and climate change adaptation and mitigation, including the potential to enlarge areas of salt marsh grazing linked to new wetland habitats created through the A Forgotten Landscape heritage project [See reference 4] and future 'String of Pearls' project [See reference 5].
- Retain and manage the silt lagoon at Oldbury Power Station as a high tide roost for wetland birds. Explore opportunities to restore lagoon three to increase the provision of intertidal habitat for wetland birds, and to contribute to the wider West of England Nature Partnership (WENP) 'String of Pearls' project, aiming to increase wetland connectivity along the Severn Estuary.
- Protect, buffer, and seek opportunities to extend the reedbed habitat at Littleton Brick Pits Avon Wildlife Trust reserve (a local wildlife site and SNCI).

Development Management

- Development proposals within the landscape and in adjacent areas should be planned and designed to minimise their visual prominence in rural and open views along the Severn Shoreline, the Severn Way, and the estuary, and within the setting of the Grade 1 listed Severn Bridge.
- Proposals for development on or associated with the designated nuclear new build site at Oldbury should be designed to minimise impact on the

character of the shoreline and estuary landscape and waterscape and to the Severn Way. This should include consideration of advance landscape works, temporary facilities and measures that would be removed once the construction phase is concluded. In order to ensure continuity of estuarine habitat, biodiversity mitigation and net gain must be delivered, seeking to ensure re-provision of suitable habitat for protected species within the local area.

- Minimise the height and bulk of the new nuclear build as seen within the estuarine and adjacent levels landscapes, including in combination with the existing station. Any proposals for a new nuclear development should incorporate a landscape and ecological framework appropriate for the scale of the development and which provides visual screening. Consideration should be given to advance provision of mitigation measures.
- Ensure renewable energy developments are sensitively designed and sited to minimise their impact on visual and landscape character, also considering cumulative effects that will be widely visible across the flat low-lying landscape. Use existing vegetation to screen new developments where appropriate.

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- 1 West of England Nature Partnership, Nature Recovery Network. Available at: <https://wenp.org.uk/nature-recovery-network/>
- 2 The Avonmouth Severnside Enterprise Area (ASEA) Ecology Mitigation and Flood Defence Project. Available at: <https://www.asea-flood-ecology.co.uk/>
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- 5 West of England Nature Recovery Network prospectus 2021. Available at: https://www.wenp.org.uk/wp-content/uploads/2021/03/NRN-Prospectus_March-2021_for-website-1.pdf

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Landscape Design / Strategic Planning & Assessment
Development Planning / Urban Design & Masterplanning
Environmental Impact Assessment / Landscape Planning & Assessment
Landscape Management / Ecology / Historic Environment / GIS & Visualisation