

## **Appendix 3 – Detailed Baseline Information (2018)**

2018 Version

## **1. Social and economic factors**

### **1.1 Employment by Sector**

#### **1.1.1 Yorkshire and Humber**

In 2017 ONS published data for the Yorkshire and Humber region show the change (%) from 2015 to predicted mid 2017 values, of workforce jobs by industry. They were positive for the following industries: Information and Communication (9.4%), Water supply, sewerage, waste & remediation activities (5.2%), Transport & storage (4.2%) manufacturing (1.3%) and Accommodation & food service activities (0.9%). Changes were negative for the following industries: Agriculture, forestry & fishing (-32.4%), Electricity, gas, steam & air conditioning supply (-17.1%), Mining & quarrying (-15.9%), Wholesale & retail trade; repair of motor vehicles and motor cycles (-6.1%) and Construction (-0.8%). Overall jobs, from 2015 to 2017 were down -1.4%. Note these are changes in job numbers and do not reflect the raw size and therefore importance of any one industry (ONS, 2017a).

#### **1.1.2 East Midlands**

In 2017 ONS published data for the East Midlands region show the change (%) from 2015 to predicted mid 2017 values, of workforce jobs by industry. The change, calculated by ONS, is positive across all sectors reported on. These changes were as following: Agriculture, forestry & fishing (21.4%), Information & communication (13.2%), Electricity, gas, steam & air conditioning supply (11.3%), Mining & quarrying (10.4%), Water supply, sewerage, waste & remediation activities (8.1%), Transport & storage (5.6%), Accommodation & food service activities (5%), Manufacturing (1.9%), Wholesale & retail trade; repair of motor vehicles and motor cycles (0.8%) and Construction (0.3%). Overall jobs increased from 2015 to 2017 by 2.6% (ONS, 2017b).

## 2. Environmental factors

### 2.1 Nature conservation designations

#### 2.1.1 Natura 2000 sites introduction

Within 2km of the study boundary there are a number of designated sites and sites that could potentially be designated as a Special Area of Conservation (SAC) under the EC Habitats Directive (92/43/EEC), a Special Protection Area (SPA) under the EC Wild Birds Directive for the protection of rare, vulnerable and regularly occurring migratory species of bird (79/409/EEC), and a 'Wetland of International Importance' under the Ramsar Convention. The SPA and SAC together forms the Humber Estuary European Marine Site (EMS), also known as a Natura 2000 site (Appendix 2 - see Figure 10).

Member states are required to take appropriate steps to avoid the deterioration of natural habitats and the habitats of species for which Natura 2000 sites have been designated (EC, 2000). These measures may be proactive (e.g. planning for the future management of Natura 2000 sites) or preventative (e.g. assessing the impacts of proposed developments on Natura 2000 sites).

The conservation status of Humber SPA and SAC features (provided by Natural England, July 2014) are given in Appendix 3, Table 1 and summaries of the designations are provided below.

#### 2.1.2 Special Protection Areas (SPAs)

An area of 37,630 hectares of the Humber Estuary are designated as SPA. There are three SPAs within the study boundary - the Humber Estuary, Lower Derwent Valley, Thorne and Hatfield Moors. One potential SPA (pSPA) - the Greater Wash pSPA is within 2km of the study boundary.

The Humber Estuary SPA and the Lower Derwent Valley SPAs are designated for their significant waterbird assemblages and the Thorne and Hatfield Moors SPA is designated for the protection of a breeding population of Nightjar. Species include wigeon and Bewick's swan. A complete list of qualifying species is available on the JNCC website<sup>1</sup>.

The Greater Wash area, stretching from Bridlington Bay in the north to approximately Great Yarmouth in the south, is being recommended by Natural England and the Joint Nature Conservation Committee (JNCC) as a potential SPA<sup>2</sup>. The site will protect internationally important populations of overwintering red-throated diver, common scoter and little gull. It will also include the ideal coastal feeding waters used by breeding populations of common tern, sandwich tern and little tern.

#### 2.1.3 Special Areas of Conservation (SACs)

There are four SACs within the study boundary and one additional SAC within 2km of the study boundary.

The Humber Estuary SAC is designated due to presence of a diverse range of Annex I habitats including Atlantic salt meadows and a range of sand dune types in the outer estuary area, as well as subtidal sandbanks, extensive intertidal mudflats, glasswort beds and coastal lagoons. Upstream, there are reedbeds and brackish saltmarsh communities where water becomes less saline. Upstream of the Humber Bridge there are also extensive mud and sand bars which form semi-permanent islands. SAC-designated fish species are the river lamprey *Lampetra*

<sup>1</sup> Source: <http://jncc.defra.gov.uk/pdf/SPA/UK9005171.pdf>, <http://jncc.defra.gov.uk/pdf/SPA/UK9006111.pdf>, <http://jncc.defra.gov.uk/pdf/SPA/UK9006092.pdf>, accessed 06/07/2018.

<sup>2</sup> Source: [https://consult.defra.gov.uk/natural-england-marine/greater-wash-potential-special-protection-area-com/supporting\\_documents/V9%20FINAL%20Greater%20Wash%20Departmental%20Brief%2017%20October%202016%20ready%20for%20consultation.pdf](https://consult.defra.gov.uk/natural-england-marine/greater-wash-potential-special-protection-area-com/supporting_documents/V9%20FINAL%20Greater%20Wash%20Departmental%20Brief%2017%20October%202016%20ready%20for%20consultation.pdf), accessed 06/07/2018.

fluviatilis and the sea lamprey *Petromyzon marinus*. The grey seal *Halichoerus grypus* is an additional qualifying feature for site designation in the area.

The Lower Derwent Valley SAC is primarily designated because it contains the largest area of high-quality examples of lowland hay meadows in the UK (*Alopecurus pratensis* and *Sanguisorba officinalis*). The SAC is also notable for an abundance of the narrow-leaved water-dropwort, a rare species of flora. Alluvial forests and otter *Lutra lutra* are additional qualifying features for the designation.

Thorne Moor SAC is designated primarily for degraded raised bogs which are still capable of natural regeneration. The SAC is England's largest expanse of raised bog. Recent management of the area has increased the proportion of active raised bog within the Moors which are species-rich with bog-mosses, cottongrasses, heather, cross-leaved heath, round-leaved sundew, cranberry and bog-rosemary.

The Saltfleetby-Theddlethorpe Dunes & Gibraltar SAC is primarily protected for the following Annex I habitats: Shifting dunes along the shoreline (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), dunes with *Hippophae rhamnoides*, humid dune slacks and embryonic shifting dunes.

The Hatfield Moor SAC is within 2km of the study area boundary primarily designated for its degraded raised bogs which are still capable of natural regeneration. This SAC is the second-largest area of extant lowland raised bog peat in England, and is a remnant of a previously extensive bog and fen peatlands within the Humber head Levels. The bog is particularly notable for its invertebrate fauna and moss and shrub flora.

Appendix 3 Table 1 Conservation status of Humber SPA and SAC features (provided by Natural England July 2014)

Nature 2000 Feature	Conservation status
Estuary	SAC feature in unfavourable recovering condition.
Mud and sand flats	SAC feature in unfavourable recovering condition.
Saline lagoons	SAC feature in favourable condition.
Saltmarsh – Atlantic salt meadow and pioneer saltmarsh	Annex 1 (Habitats Directive) feature assessment not recorded at site level.
Sub-tidal sandbanks	SAC feature in favourable condition.
Breeding birds	No current SPA condition assessment.
Wintering and passage birds	No current SPA condition assessment.
Grey seals	SAC feature in favourable condition.
River and sea lamprey	Annex 1 (Habitats Directive) feature assessment not recorded at site level.

Source: Humber Management Scheme Action Plan 2016

#### 2.1.4 Ramsar Sites

Ramsar Sites are wetlands designated under the Ramsar Convention as wetlands of international importance (Ramsar, Wetlands of International Importance (Ramsar Sites), 2014). There are two Ramsar sites within the study boundary: the Humber Estuary and the Lower Derwent Valley. The Humber Estuary supports internationally important populations of breeding, wintering and passage birds, including the ringed plover and sanderling, and is also home to Britain's most south-easterly breeding population of grey seal. The estuary itself has a maximum tidal range of 7.4 metres, which exposes vast mud and sand flats at low tide. Vegetation in the wetland includes extensive reedbeds and areas of mature and developing saltmarsh. There is also grazing marsh, low sand dunes with marshy slack and brackish pools.

Lower Derwent Valley Ramsar, which is also an AONB (upstream of study area boundary), is a river floodplain situated between two villages. It is of national importance for breeding and wintering ducks and swans and is also important for breeding waders. Grassland determined by the extent of winter flooding is the dominant vegetation at the site. Part of the site is also an important example of traditionally managed species-rich alluvial flood meadow habitat in the UK. The site is also utilized by humans for fishing, hunting and grazing<sup>3</sup>.

### 2.1.5 Sites of Special Scientific Interest (SSSIs)

There are 24 SSSIs within the study area boundary, including the Humber Estuary itself. Most are in either a Favourable or Unfavourable Recovering condition, and most are designated for biological reasons (i.e. flora and fauna), though two SSSIs in East Yorkshire are designated for geological reasons. The list of SSSI sites located in each local authority within the study area and their status (condition) and feature type (biological, geological) is presented on Appendix 3 Table 2. There are an additional 12 SSSIs situated within 2km of the study boundary. For location of these SSSIs, see map in Appendix 2.

Appendix 3 Table 2 List of all SSSIs and their status identified by local authorities in the study area

Local Authority	SSSI Name	Condition*	Reason
Several	Humber Estuary	Mostly UR	Biological <sup>4</sup>
Doncaster	Owston Hay Meadows	F	Biological
	Shirley Pool	F & UR	Biological
	Went Ings Meadows	F & UR	Biological
Doncaster, East Yorks, North Lincs	Thorne, Crowle and Goole Moors	UR & UD	Biological
East Lindsey	Saltfleetby-Theddlethorpe Dunes	F	Biological
	Tetney Blow Wells	UR	Biological
East Yorkshire	Barn Hill Meadows	F & UR	Biological
	Kelsey Hill Gravel Pits	F	Geological
	Leven Canal	UR & UNC	Biological
	Pulfin Bog	F	Biological
	River Derwent	UR	Biological
	River Hull Headwaters	UR	Biological
	Roos Bog	F	Geological
	South Cliffe Common	F & UR	Biological
	The Lagoons	UR	Biological
Tophill Low	UR	Biological	
North Lincolnshire	Crowle Borrow Pits	UR	Biological

<sup>3</sup> Source: <https://rsis.ramsar.org/ris/663> and <https://rsis.ramsar.org/ris/301>, accessed 06/07/2018.

<sup>4</sup> Some of the Humber Estuary SSSI units have been classed as unfavourable recovering due to the impact coastal squeeze is having on intertidal habitats.

	Eastoft Meadow	F	Biological
	Messingham Heath	UR	Biological
	North Killingholme Haven Pits	UR	Biological
Selby District	Eskamhorn Meadows	F	Biological
West Lindsey	Laughton Common	UNC	Biological
	Tuetoos Hills	UR	Biological

Source: Natural England

\* F = Favourable, UR = Unfavourable Recovering, UD = Unfavourable Declining, UNC = Unfavourable No Change. The condition of the SSSI land in England is assessed by Natural England, using categories across England, Scotland, Wales, and Northern Ireland through the Joint Nature Conservation Committee.<sup>5</sup>

### 2.1.6 National Nature Reserves (NNRs)

There are five National Nature Reserves within the study area boundary, including one NNR within 2km of the boundary.

Three NNRs are managed by the Lincolnshire Wildlife Trust: the Donna Nook NNR (340ha), Far Ings NNR (65ha) and Saltfleetby-Theddlethorpe Dunes NNR (within 2km of the study area boundary). Donna Nook, which covers a 10km extent of coastline between Grainthorpe Haven and Saltfleet, is important for 47 species of bird which breed on-site. Habitats in this NNR includes sand dunes, slacks and inter-tidal ranges as well as mudflats and saltings which are formed from material deposited from the River Humber<sup>6</sup>. The Far Ings NNR is designated for its extensive reedbeds, and meadow and scrub and open water. The NNR is one of the few UK's strongholds for breeding bittern, and is a major east-west flyaway for migrating birds including waders and wildfowl. In summer, it is also important for hirundine roosts in the reedbeds.<sup>7</sup>

Other NNRs within the study area are the Spurn NNR (managed by Yorkshire Wildlife Trust) and the Humberheads Peatland NNR (managed by Doncaster Metropolitan Borough Council). The Spurn NNR is important for birdlife year-round, including sand martins, swallows and wheatears during spring migration and waders in the winter which feed on the rich mudflats of the estuary. Grey seals and whales can sometimes be seen offshore<sup>8</sup>.

The Humberhead Peatlands NNR also has important breeding populations of birds including nightjar and crane, as well as invertebrate assemblages. Habitats include grasslands, degraded raised mire with potential for restoration, a mosaic of successional habitats on sand and gravels on Hatfield Moor, open water, and Fen and Wet Woodland Communities on Warped Soils.<sup>9</sup>

## 2.2 Locally designated sites

In addition to the internationally and nationally designated sites, the sections below describe the local biodiversity designations within the study area. These are shown on Appendix 2, Figure 11.

### 2.2.1 Local Nature Reserves (LNRs)

There are 15 Local Nature Reserves within the study boundary; they are - Buntings Wood at Doncaster Metropolitan Borough Council; Humber Bridge, Eastington Ponds, Howden Marsh, Sugar Mill Ponds, Mayfield and Broom Park at East Riding of Yorkshire Council; Rockford Fields, Noddlehill at Hull City Council; Owllet at

<sup>5</sup> Source: <https://designatedsites.naturalengland.org.uk/SSSIGlossary.aspx>, accessed 06/07/2018.

<sup>6</sup> Source: <http://www.lincstrust.org.uk/donna-nook>, accessed 06/07/2018.

<sup>7</sup> Source: <http://www.lincstrust.org.uk/far-ings>, accessed 06/07/2018.

<sup>8</sup> Source: <http://www.ywt.org.uk/spurn-national-nature-reserve>, accessed 06/07/2018.

<sup>9</sup> Source:

<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=1006766&SiteName=humberhead&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>, accessed 06/07/2018.

Lincolnshire County Council; Weelsby Wood Park, Cleethorpes Country Park, Cleethorpes at North East Lincolnshire; Far Ings, Waters Edge at North Lincolnshire; and Barlow Common at Selby District Council. There are an additional 10 LNRs within 2km of the boundary.

## **2.2.2 RSPB Reserves**

### **2.2.2.1 Blacktoft Sands, East Riding of Yorkshire**

Blacktoft Sands RSPB reserve has the largest area of tidal reedbed in England. The reserve is used by 270 species of bird throughout the year, including waders, warblers and raptors and thousands of ducks in winter. In spring, marsh harriers return to the reserve and avocets begin nesting.

### **2.2.2.2 Beckingham Marshes, Bassetlaw District**

Beckingham Marshes RSPB reserve is a conservation project in partnership with the Environment Agency along the River Trent floodplain. The wetland reserve supports breeding wading birds such as lapwing and redshanks, as well as species of amphibian, dragonflies, damselflies, aquatic plants and water voles.

In winter, the flooded fields are of importance for wildfowl including wigeon, teal, gadwall and shoveler. Other species of note include curlew, lapwing, snipe, tree sparrow, yellow wagtail, skylark and others.

2018 Version

### 3. Water Framework Directive (WFD) information on water bodies

#### 3.1 Surface waters

Appendix 3 Table 3 Water body WFD parameters for the Humber Upper (based on RBMP cycle 2 data)

Water body ID	GB530402609203
Water body name	Humber Upper
NGR	SE7856623918
Catchment area (ha)	1233.169 Area
Catchment area (km <sup>2</sup> )	12.332 Area
Hydromorphological designation	Transitional water body – heavily modified
Current overall status	Moderate
Status objective (overall)	Moderate by 2015
Reasons for not achieving good status:	Unfavourable balance of costs and benefits Causes of adverse impact unknown Disproportionate burdens
Protected area designation	Conservation of Wild Birds Directive; Habitats Directive; Nitrates Directive; Urban Waste Water Treatment
Hydromorphological supporting elements <ul style="list-style-type: none"> <li>▪ Hydrological regime</li> </ul>	Supports good. Supports good by 2015
Current ecological status (and status objective)	Moderate. Moderate by 2015
Biological quality elements (and status objective) <ul style="list-style-type: none"> <li>▪ Fish</li> <li>▪ Macroalgae</li> </ul>	Moderate. Good by 2027 Good. Good by 2015 High. Good by 2015
Physico-chemical quality elements (and status objective)	Moderate. Moderate by 2015
Chemical quality elements (and status objective)	Good. Good by 2015



**HUMBER UPPER**

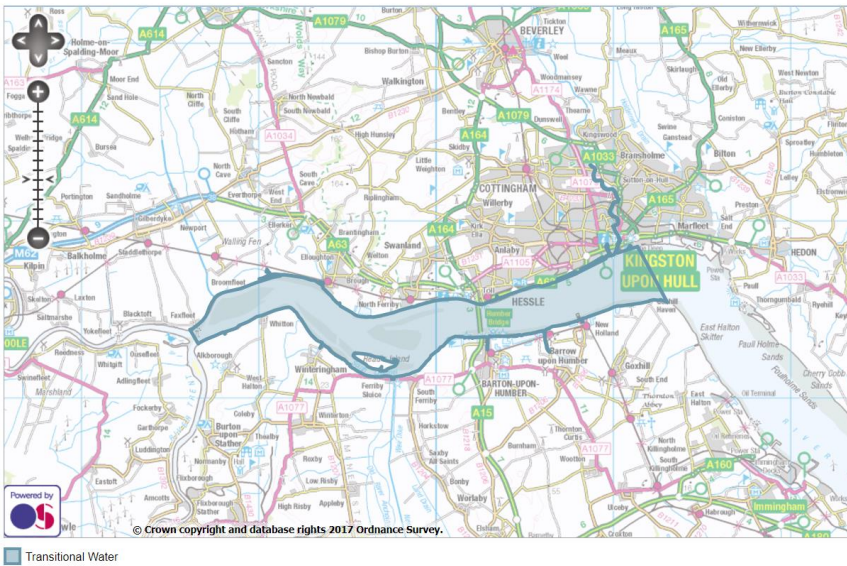


Appendix 3 Figure 1 Humber Upper water body (source Catchment explorer)

Appendix 3 Table 4 Water body WFD parameters for the Humber Middle (based on RBMP cycle 2 data)

<b>Water body ID</b>	<b>GB530402609202</b>
Water body name	Humber Middle
NGR	TA1011527108
Surface area (km <sup>2</sup> )	67.14 km <sup>2</sup>
Hydromorphological designation	Transitional Water – heavily modified
Current overall status	Moderate
Status objective (overall)	Moderate by 2015
Reasons for not achieving good status:	Unfavourable balance of costs and benefits Causes of adverse impact unknown Disproportionate burdens
Protected area designation	Conservation of Wild Birds Directive; Habitats Directive; Nitrates Directive
Hydromorphological supporting elements	Not assessed
Hydrological regime	
<ul style="list-style-type: none"> <li>Current ecological status (and status objective)</li> </ul>	Moderate. Moderate by 2015
Biological quality elements (and status objective) <ul style="list-style-type: none"> <li>Fish</li> </ul>	Moderate. Good by 2027 Good. Good by 2015
Macroalgae <ul style="list-style-type: none"> <li>Physico-chemical quality elements (and status objective)</li> </ul>	Good. Good by 2015 Moderate
Chemical quality elements (and status objective)	Fail
Water body name	Humber Middle

**HUMBER MIDDLE**



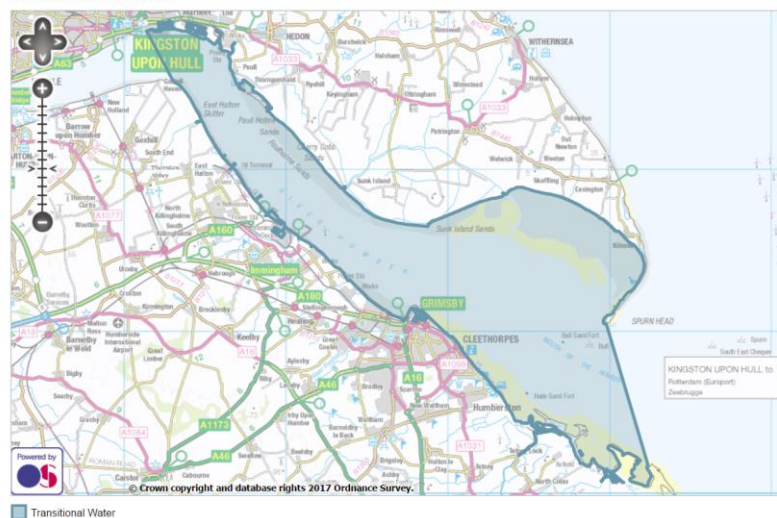
Appendix 3 Figure 2 Humber Middle water body (source Catchment Explorer)

Appendix 3 Table 5 Water body WFD parameters for the Humber Lower (based on RBMP cycle 2 data)

<b>Water body ID</b>	<b>GB530402609201</b>
Water body name	Humber Lower
NGR	TA3205914842
Catchment area (ha)	24786.211 Area
Catchment area (km <sup>2</sup> )	247.862 Area
Hydromorphological designation	Transitional water body – heavily modified
Current overall status	Moderate
Status objective (overall)	Moderate by 2015
Reasons for not achieving good status:	Unfavourable balance of costs and benefits Causes of adverse impact unknown Disproportionate burdens
Protected area designation	Bathing Water Directive; Conservation of Wild Birds Directive; Habitats Directive; Nitrates Directive; Urban Waste Water Treatment
<ul style="list-style-type: none"> <li>Hydromorphological supporting elements</li> </ul>	Not assessed
Current ecological status (and status objective)	Moderate. Moderate by 2015
Biological quality elements (and status objective)	Moderate. Good by 2027
<ul style="list-style-type: none"> <li>Invertebrates</li> <li>Fish</li> <li>Macroalgae</li> </ul>	Moderate. Good by 2027 Good. Good by 2015 High. Good by 2015
Physico-chemical quality elements (and status objective)	Moderate. Moderate by 2015

<b>Water body ID</b>	<b>GB530402609201</b>
Chemical quality elements (and status objective)	Good. Good by 2015

**HUMBER LOWER**



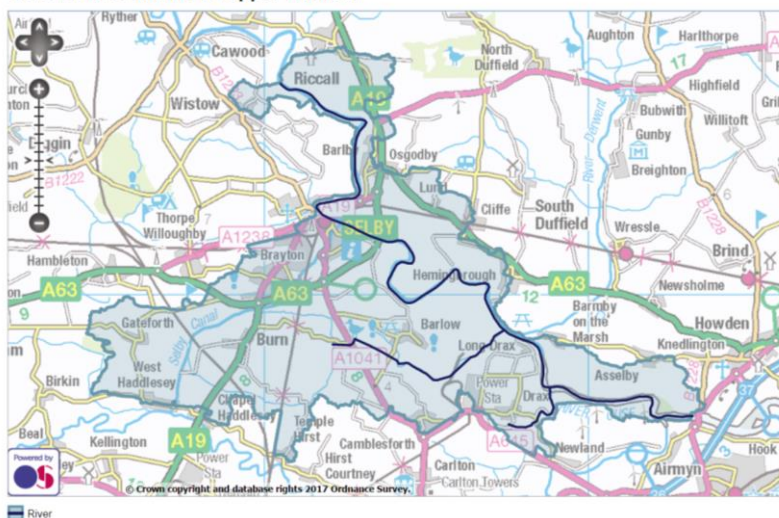
Appendix 3 Figure 3 Humber Lower water body (source Catchment Explorer)

Appendix 3 Table 6 Water body WFD parameters for the Ouse to Upper Humber (based on RBMP cycle 2 data)

<b>Water body ID</b>	<b>GB104027064270</b>
Water body name	Ouse from River Wharfe to Upper Humber
NGR	SE6326931783
Catchment area (ha)	8777.989 ha
Catchment area (km <sup>2</sup> )	34.241
Hydromorphological designation	River water body – heavily modified
Current overall status	Moderate
Status objective (overall)	Good by 2027
Reasons for not achieving good status:	Causes of adverse impact unknown Disproportionate burdens
Protected area designation	Habitats and Species directive; Nitrates Directive;
Hydromorphological supporting elements	Supports good
Hydrological regime	
Current ecological status (and status objective)	Moderate. Good by 2027
Biological quality elements (and status objective)	Not assessed
<ul style="list-style-type: none"> <li>▪ Invertebrates</li> <li>▪ Fish</li> </ul> Macroalgae	
Physico-chemical quality elements (and status objective)	Moderate. Good by 2027

<b>Water body ID</b>	<b>GB104027064270</b>
Chemical quality elements (and status objective)	Fail. Good by 2027

Ouse from R Wharfe to Upper Humber

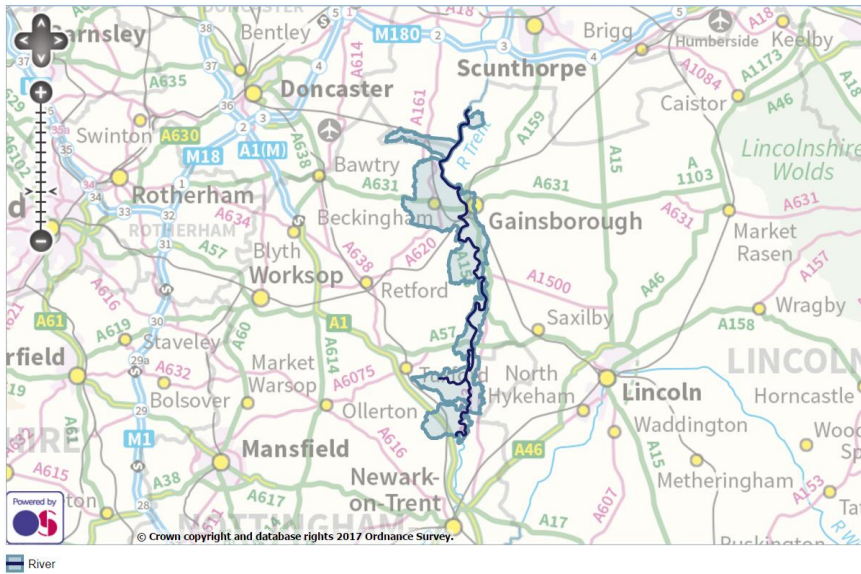


Appendix 3 Figure 4 Ouse to Upper Humber water body (source Catchment Explorer)

Appendix 3 Table 7 Water body WFD parameters for the Carlton-on-Trent to Laughton Drain (based on RBMP cycle 2 data)

<b>Water body ID</b>	<b>GB104028058480</b>
Water body name	Trent from Carlton on Trent to Laughton Drain
NGR	SK8210772355
Catchment area (km <sup>2</sup> )	126.027
Hydromorphological designation	River - artificial
Current overall status	Moderate
Status objective (overall)	Good by 2027
Reasons for not achieving good status:	Disproportionate burdens
Protected area designation	Drinking Water Protected Area Directive; Nitrates Directive; Urban Waste Water Treatment Directive
Hydromorphological supporting elements	Supports good
Hydrological regime	
Current ecological status (and status objective)	Moderate. Good by 2027
Biological quality elements (and status objective)	Bad. Good by 2027
Physico-chemical quality elements (and status objective)	Moderate. Good by 2027
Chemical quality elements (and status objective)	Good. Good by 2015

Trent from Carlton-on-Trent to Laughton Drain

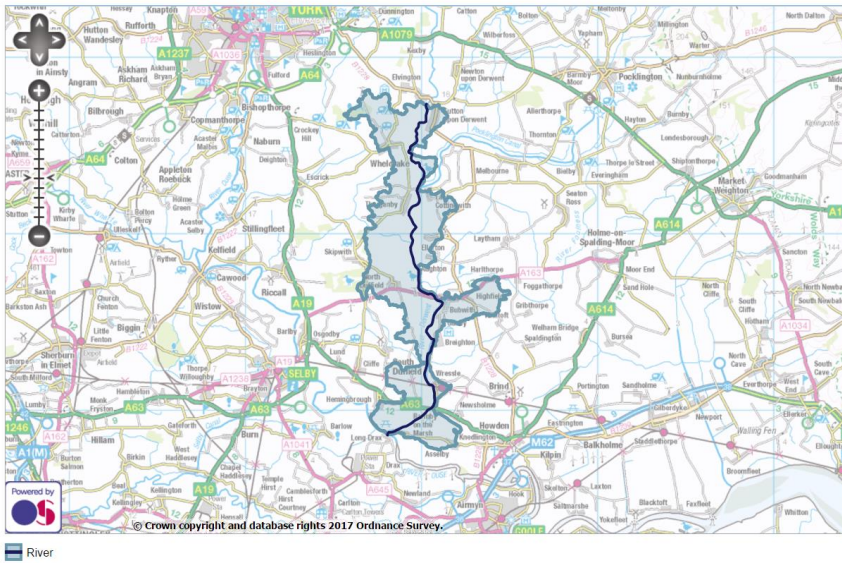


Appendix 3 Figure 5 Trent from Carlton-on-Trent to Laughton Drain (source Catchment Explorer)

Appendix 3 Table 8 Water body WFD parameters for the Derwent

Water body ID	GB104027068311
Water body name	Derwent from Elvington Beck to River Ouse
NGR	SE6984137258
Catchment area (km <sup>2</sup> )	24.292
Hydromorphological designation	River. Heavily modified
Current overall status	Moderate.
Status objective (overall)	Good by 2027
Reasons for not achieving good status:	Disproportionate burdens
Protected area designation	Conservation of Wild Birds Directive; Drinking Water Protected Area; Habitats and Species Directive; Nitrates Directive.
Hydromorphological supporting elements	Not assessed.
Hydrological regime	
Current ecological status (and status objective)	Moderate. Good by 2027
Biological quality elements (and status objective)	High. Good by 2015
Physico-chemical quality elements (and status objective)	High. Good by 2015
Chemical quality elements (and status objective)	Good. Good by 2015

Derwent from Elvington Beck to River Ouse



Appendix 3 Figure 6 Derwent (source Catchment Explorer)

### 3.2 Groundwater bodies

There are several groundwater bodies in the study area, as follows:

- Hull and East Riding chalk
- Grimsby Ancholme Louth chalk unit
- Trent lower Erewash – secondary combined
- Idle Torne – secondary mudrocks
- East Riding mercia mudstone
- Wharfe and Ouse lower Sherwood sandstone
- Aire and Don sherwood sandstone
- Grimsby Ancholme Frodingham ironstone unit
- Grimsby Ancholme Louth limestone unit.

The element status and conditions for each groundwater body are included in Table 9 below. The status for each is either Good or Poor. 'Poor' quantitative status means that the aquifer is unsustainable and suffers from low water levels – this is a problem for public water supply or groundwater dependent terrestrial ecosystems (GWDTes). 'Qualitative' means there could be issues with water quality, such as inundation with pollutants, which could pose a problem for public water supply or for groundwater-fed surface waters and dependent ecosystems such as wetlands. Any proposed development should consider the status of the waterbodies.

Appendix 3 Table 9 Groundwater body WFD parameters

Waterbody ID	Water body	Status	Classification Level	Classification Item
GB40401G40 1500	Grimsby Ancholme Louth Chalk Unit	Good	Element	Chemical GWDTes test
		Poor	Element	Quantitative Dependent Surface Water Body Status

		Good	Element	Quantitative GWDTes test
		Good	Element	Quantitative Saline Intrusion
		Poor	Ecological, chemical or quantitative status	Quantitative
		Good	Element	Chemical Saline Intrusion
		Poor	Element	Quantitative Water Balance
		Upward trend	Element	Trend Assessment
		Poor	Overall Waterbody	Overall Water Body
		Poor	Component	Quantitative Status element
		Good	Element	Chemical Dependent Surface Water Body Status
		Poor	Element	General Chemical Test
		Poor	Ecological, chemical or quantitative status	Chemical (GW)
		Poor	Component	Chemical Status element
		Poor	Element	Chemical Drinking Water Protected Area
GB40401G700700	Hull & East Riding Chalk	Good	Element	Chemical GWDTes test
		Poor	Ecological, chemical or quantitative status	Chemical (GW)
		Good	Element	Quantitative Water Balance
		Poor	Element	General Chemical Test
		Upward trend	Element	Trend Assessment
		Good	Element	Quantitative GWDTes test
		Good	Element	Chemical Dependent Surface Water Body Status
		Poor	Ecological, chemical or quantitative status	Quantitative
		Poor	Element	Quantitative Dependent Surface Water Body Status
		Poor	Overall Waterbody	Overall Water Body
		Poor	Component	Quantitative Status element
		Poor	Element	Chemical Drinking Water Protected Area
		Poor	Element	Quantitative Saline Intrusion

		Poor	Component	Chemical Status element
		Poor	Element	Chemical Saline Intrusion
GB40402G990200	East Riding Mercia Mudstone	Good	Element	Chemical GWDTes test
		Good	Element	Chemical Dependent Surface Water Body Status
		Poor	Component	Quantitative Status element
		Poor	Overall Waterbody	Overall Water Body
		No trend	Element	Trend Assessment
		Good	Element	General Chemical Test
		Good	Element	Chemical Saline Intrusion
		Poor	Ecological, chemical or quantitative status	Quantitative
		Good	Component	Chemical Status element
		Good	Element	Quantitative Saline Intrusion
		Good	Element	Chemical Drinking Water Protected Area
		Good	Element	Quantitative GWDTes test
		Good	Ecological, chemical or quantitative status	Chemical (GW)
		Good	Element	Quantitative Water Balance
		Poor	Element	Quantitative Dependent Surface Water Body Status
GB40402G700500	Wharfe & Lower Ouse Millstone Grit and Carb Limestone	Good	Element	Quantitative Dependent Surface Water Body Status
		Good	Element	Quantitative Water Balance
		Good	Ecological, chemical or quantitative status	Quantitative
		Poor	Element	Chemical Dependent Surface Water Body Status
		Poor	Component	Chemical Status element
		Good	Element	Chemical GWDTes test
		Good	Component	Quantitative Status element
		Good	Element	Chemical Saline Intrusion
		Good	Element	General Chemical Test
Poor	Ecological, chemical or quantitative status	Chemical (GW)		



		Good	Element	Quantitative GWDTes test
		Good	Element	Quantitative Saline Intrusion
		Good	Element	Chemical Drinking Water Protected Area
		No trend	Element	Trend Assessment
		Poor	Overall Waterbody	Overall Water Body
GB40402G990300	Lower Trent & Erewash - Secondary Combined	Good	Element	Chemical Saline Intrusion
		Good	Element	Quantitative Saline Intrusion
		Good	Element	Chemical Drinking Water Protected Area
		Poor	Ecological, chemical or quantitative status	Chemical (GW)
		No trend	Element	Trend Assessment
		Good	Ecological, chemical or quantitative status	Quantitative
		Good	Element	Quantitative GWDTes test
		Poor	Overall Waterbody	Overall Water Body
		Good	Element	General Chemical Test
		Good	Component	Quantitative Status element
		Good	Element	Quantitative Water Balance
		Poor	Element	Chemical Dependent Surface Water Body Status
		Poor	Component	Chemical Status element
		Good	Element	Chemical GWDTes test
		Good	Element	Quantitative Dependent Surface Water Body Status
GB40402G445800	Grimsby Ancholme Frodingham Ironstone Unit	Good	Element	Quantitative Water Balance
		Good	Ecological, chemical or quantitative status	Quantitative
		Good	Component	Chemical Status element
		Good	Element	Quantitative Saline Intrusion
		Good	Element	Quantitative GWDTes test
		No trend	Element	Trend Assessment
		Good	Element	Quantitative Dependent Surface Water Body Status

		Good	Ecological, chemical or quantitative status	Chemical (GW)
		Good	Element	Chemical Drinking Water Protected Area
		Good	Element	Chemical GWDTEs test
		Good	Element	Chemical Dependent Surface Water Body Status
		Good	Overall Waterbody	Overall Water Body
		Good	Element	Chemical Saline Intrusion
		Good	Component	Quantitative Status element
		Good	Element	General Chemical Test
GB40401G444600	Grimsby Ancholme Louth Limestone Unit	Good	Element	Quantitative GWDTEs test
		Good	Element	Chemical Saline Intrusion
		Good	Overall Waterbody	Overall Water Body
		Good	Element	Quantitative Dependent Surface Water Body Status
		Good	Element	Chemical Dependent Surface Water Body Status
		Good	Element	General Chemical Test
		Good	Element	Chemical Drinking Water Protected Area
		Good	Element	Chemical GWDTEs test
		No trend	Element	Trend Assessment
		Good	Ecological, chemical or quantitative status	Quantitative
		Good	Component	Chemical Status element
		Good	Element	Quantitative Water Balance
		Good	Ecological, chemical or quantitative status	Chemical (GW)
		Good	Component	Quantitative Status element
Good	Element	Quantitative Saline Intrusion		
GB40402G992300	Don & Rother Millstone grit & Coal Measures	Good	Component	Quantitative Status element
		Poor	Ecological, chemical or quantitative status	Chemical (GW)
		Good	Element	Quantitative Water Balance

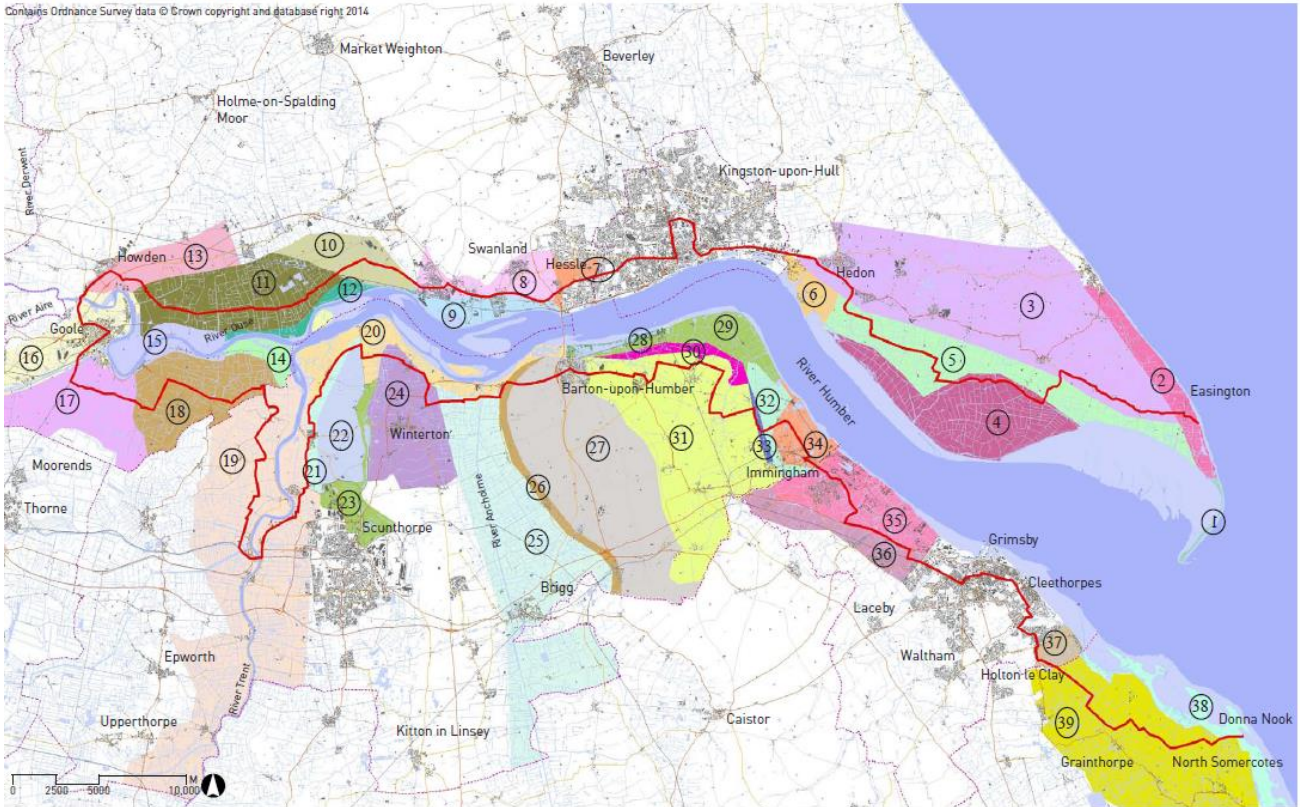
		Good	Ecological, chemical or quantitative status	Quantitative
		Good	Element	Quantitative GWDTes test
		Good	Element	Quantitative Saline Intrusion
		Good	Element	Quantitative Dependent Surface Water Body Status
		Good	Element	Chemical Saline Intrusion
		Poor	Element	Chemical Dependent Surface Water Body Status
		Poor	Component	Chemical Status element
		Poor	Overall Waterbody	Overall Water Body
		No trend	Element	Trend Assessment
		Good	Element	Chemical Drinking Water Protected Area
		Good	Element	Chemical GWDTes test
		Good	Element	General Chemical Test
GB40401G702400	Wharfe & Lower Ouse Sherwood Sandstone	Good	Element	Quantitative GWDTes test
		Poor	Component	Quantitative Status element
		No trend	Element	Trend Assessment
		Poor	Overall Waterbody	Overall Water Body
		Good	Element	Chemical Drinking Water Protected Area
		Poor	Element	Chemical Saline Intrusion
		Poor	Ecological, chemical or quantitative status	Quantitative
		Good	Element	General Chemical Test
		Poor	Element	Quantitative Saline Intrusion
		Poor	Ecological, chemical or quantitative status	Chemical (GW)
		Poor	Component	Chemical Status element
		Good	Element	Quantitative Dependent Surface Water Body Status
		Good	Element	Chemical GWDTes test
		Good	Element	Quantitative Water Balance
		Good	Element	Chemical Dependent Surface Water Body Status

GB40401G701000	Aire & Don Sherwood Sandstone.	Poor	Ecological, chemical or quantitative status	Quantitative
		Upward trend	Element	Trend Assessment
		Poor	Element	General Chemical Test
		Poor	Element	Quantitative Water Balance
		Good	Element	Quantitative Saline Intrusion
		Poor	Component	Chemical Status element
		Good	Element	Quantitative GWDTes test
		Good	Element	Chemical Dependent Surface Water Body Status
		Poor	Component	Quantitative Status element
		Poor	Element	Chemical Drinking Water Protected Area
		Good	Element	Chemical GWDTes test
		Poor	Overall Waterbody	Overall Water Body
		Good	Element	Quantitative Dependent Surface Water Body Status
		Good	Element	Chemical Saline Intrusion
		Poor	Ecological, chemical or quantitative status	Chemical (GW)



## 4. Local landscape character

Map and table indicating local landscape character areas (reproduced from (Cambridge Studios)).



Key- Assessment (LCA) applicable on a Local Landscape Character Areas

Local Authority	Local Landscape Character Area	Number on Map
East Riding of Yorkshire (East Riding of Yorkshire Landscape Character Assessment, November 2005)	Low-lying drained farmland – Spurn Point	1
	Coastal Farmland – Withernsea to Spurn Coast	2
	Open Farmland – Burstwick to Withernsea Farmland	3
	Low-lying drained farmland – Sunk Island	4
	Low-lying drained farmland – South Patrington, Ottringham and Keyingham Farmland	5
	Low-lying drained farmland – Paull Farmland	6
	Farmed Urban Fringe – North Hessle Farmland	7
	Jurassic Hills Farmland – Elloughton cum Brough to Hessle Urban Edge Farmland	8
	Farmed Urban Fringe – North Ferriby Farmland	9
	Drained Open Farmland – Walling Fen and Ellerker Sands Farmland	10
	Drained Open Farmland – Blacktoft and Laxton Farmland	11

	Humber Banks – Brough to Yokefleet Riverbank	12
	M62 Corridor Farmland – Howden to Gilberdyke	13
	Humber Banks – Blacktoft Sands	14
	River Corridors – River Ouse Corridor: Howden Dyke to Trent Reach	15
	M62 Corridor Farmland – M62 Corridor Hook to Pollington	16
	Drained Open Farmland – Goole Fields	17
	Drained Open Farmland – Twin Rivers Farmland	18
North Lincolnshire Council (North Lincolnshire Landscape Character Assessment and Guidelines, 1999)	Trent Levels – Flat Drained Farmland	19
	Humber Estuary – Flat Drained Farmland	20
	Lincolnshire Edge – Steep Wooded Scarp	21
	Lincolnshire Edge - Elevated Wooded Farmland	22
	Lincolnshire Edge- Despoiled Landscape	23
	Lincolnshire Edge- Elevated Open Farmland	24
	Vale of Ancholme- Flat Valley Bottom Farmland	25
	Lincolnshire Wolds - Wooded Farmed Scarp Slope	26
	Lincolnshire Wolds - Open Rolling High Farmland	27
	Humber Estuary – Waterfilled Clay Pits	28
	Humber Estuary – Flat Open Farmland	29
	Lincolnshire Drift – Flat Open Farmland	30
	Lincolnshire Drift –Open Undulating Farmland	31
	Humber Estuary – Open Undulating Farmland	32
	Humber Estuary – Wooded Farmland	33
Humber Estuary – Industrial Landscape	34	
North East Lincolnshire Council (North-East Lincolnshire Landscape Character Assessment, February 2010)	Humber Estuary – Industrial landscape	35
	Lincolnshire Coast and Marshes – Open Farmland	36
	Humber Estuary – Flat Open Farmland	37
East Lindsey District Council	Naturalistic Coast - Donna Nook to Gibraltar Point	38
	Coastal Outmarsh - Tetney Lock to Skegness	39

2018 Version