

# **THE MERSEY GATEWAY PROJECT**

## **DESCRIPTION OF STUDY AREAS**

### **CHAPTER 4.0**

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## **4. DESCRIPTION OF STUDY AREAS**

### **4.1 Introduction**

4.1.1 This chapter describes the study area adopted for the EIA of the Project. It sets out the location of Halton in the UK and provides detailed descriptions of the study area following the alignment of the Project from the north of Halton in Widnes, across the Estuary, to the south of Halton in Runcorn. This study area is founded on the Project Area and forms the basis for all subsequent environmental assessments reported in this ES, although some variations occur to meet the specific requirements and scope of particular topics (for example landscape). Full details on individual study areas and the rationale for their selection are provided in each technical chapter of the ES (Chapters 7 to 20).

### **4.2 National and Regional Location**

4.2.1 Halton is located in the North West of England (see Figures 1.1 and 1.2, Chapter 1) on the Mersey Estuary (the “Estuary”), approximately 23.5km from Liverpool city centre and 45km from Manchester city centre<sup>1</sup>. Runcorn and Widnes were originally located within the counties of Cheshire and Lancashire respectively. However on 1 April 1998 the Borough of Halton was granted unitary status.

### **4.3 Introduction to Halton**

4.3.1 Halton was formed in 1974 to include the towns of Runcorn and Widnes, together with the outlying rural villages of Hale, Moore, Daresbury and Preston Brook. The population of Halton stood at 119,500 in 2006, a decrease of over 2,000 compared to the figure of 1996. Deprivation levels in Halton are high with the Index of Multiple Deprivation<sup>2</sup> (IMD) figures for 2007 indicating that of the 79 Lower Layer Super Output Areas (LSOA<sup>3</sup>) in Halton, 46 are in the most 30% deprived SOAs in England and 21 are within 10% most deprived. The Project is located within the wards of Riverside and Ditton, to the north of the River and the wards of Mersey, Castlefields, Halton Brook, Grange, Heath, Halton Lea and Beechwood to the south of the River. A number of LSOAs located within these wards (with the exception of Heath and Beechwood) have an IMD score within the most deprived 20% in England.

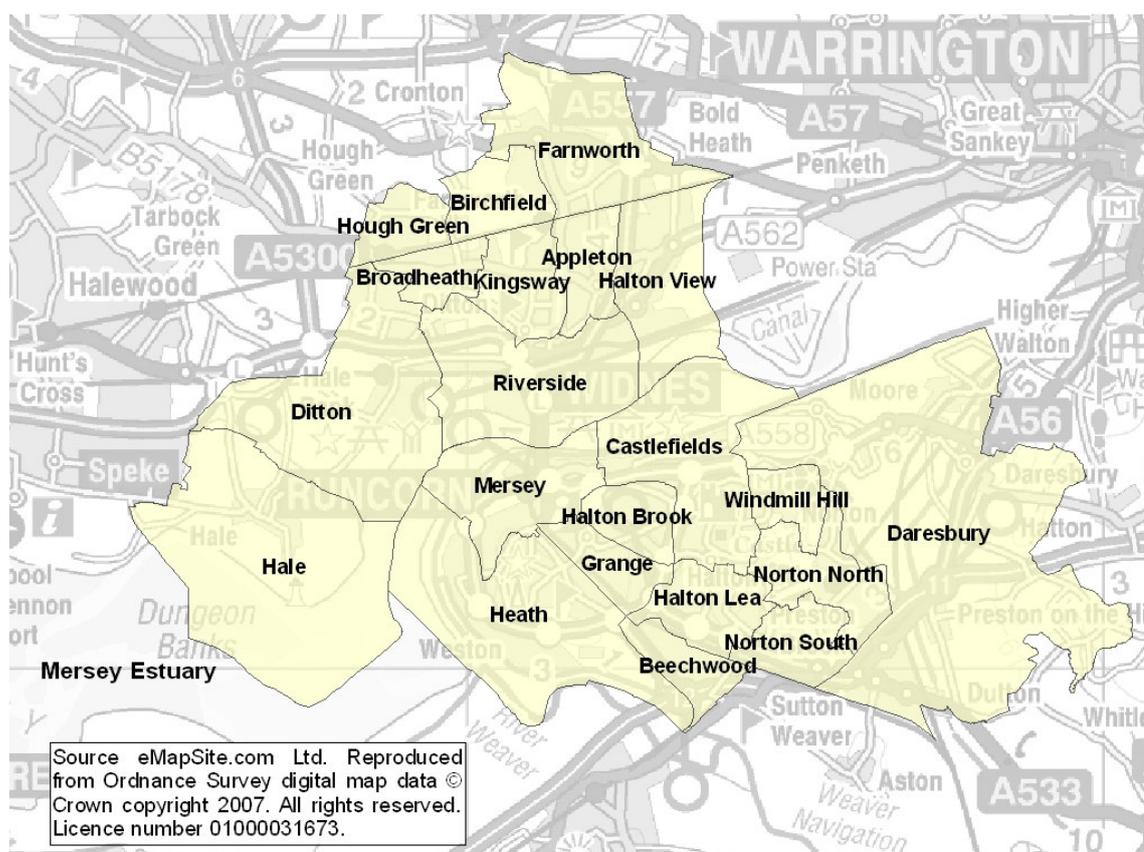
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<sup>1</sup> Measurements are approximate and taken from Widnes Town Centre.

<sup>2</sup> Statistics for deprivation are compiled in relation to areas known as Lower Super Output Areas (LSOAs). There are 32,482 LSOAs in England. The most deprived LSOA for each Index is given a rank of 1 and the least deprived LSOA is given a rank of 32,482, for presentation. The ranks show how an LSOA compares to all the other LSOAs in the country.

<sup>3</sup> SOAs are geographical areas of consistent size with unchangeable boundaries. A number may make up a single ward.

**Figure 4.1 - Wards within Halton**



4.3.2 The following sections of this chapter provide a more detailed description of the study area for the Project following its alignment from north to south. The areas either side of the River can be seen in more detail in Figure 4.2 (Appendix 4.1).

#### **4.4 Widnes**

4.4.1 Widnes stands on relatively low-lying land on the north side of the River. New industrial areas and the remnants of the old industries lie between the towns of Widnes and the River. Primary distributor routes by-pass the town to the east and south-west. Although grade separated junctions have generally been provided to connect to the district and local distributor roads, the system does not have segregated pedestrian, cycle and local bus traffic. The complex junction of the A562 Fiddlers Ferry Road and A557 roads that provides access to the industrial areas south-east of the town is not grade separated.

4.4.2 To the north west of the Ditton Junction is St Michael's Golf Course (Figure 4.2). This area is dissected by Speke Road and is located to the south of Widnes on the urban periphery close to the residential district of Lower House. A small surface stream, which ultimately becomes Steward's Brook, is located on the northern perimeter of St Michael's golf course, passing under Speke Road and heading towards the River. The site is currently disused because the golf course was closed to the public in 2004. The golf course comprises 30 hectares of reclaimed land from old chemical waste tips. Assessment work undertaken by the Council in 2004 identified high levels of soil contamination at the golf course, leading to its closure.

4.4.3 To the south east of the golf course is Ditton Junction, which comprises an existing developed pocket of brownfield land (approximately 1.43 ha) at the junction of Ditton Road and Speke Road.

Land on Lowerhouse Lane and an area of industrial units on Ditton Road are allocated for development for an employment use.

- 4.4.4 The Garston to Timperley freight railway line between Liverpool and Warrington passes through the south of Widnes, to the south of Ditton Junction (as shown on Figure 4.2).
- 4.4.5 To the south east of the Garston to Timperley freight line is an industrial area on the northern banks of the River. This area comprises industrial properties on Waterloo Road. Beyond this is an area of land allocated for employment use at the Catalyst Trade Park, which extends east to the western corner of the ThermPhos Chemical Works on Earle Road.
- 4.4.6 The residential area of West Bank lies immediately next to the River and SJB alignment at Runcorn Gap. This community is separated from the town by the A557 and the Victoria Road and Catalyst Trade Park industrial areas to its north.
- 4.4.7 Fiddler's Ferry Power Station stands on the northern side of the River immediately to the east of the Borough, with Liverpool John Lennon Airport immediately to the west, in each case outside the administrative area of Halton.
- 4.4.8 Bowers Brook and St Helens Canal watercourses are located to the north of the River. Bowers Brook is a culvert that runs to the north of the St Helens Canal. The St. Helens Canal, also known as the Sankey Canal, is a canal linking St. Helens to the River at Spike Island, Widnes, and was constructed primarily for the transportation of coal from the Lancashire coalfields to the developing industrial areas in the Mersey Basin. The section of the St. Helens Canal in Widnes is owned by HBC and is currently disused. This canal is currently not navigable to most craft beyond Spike Island due to the presence of a fixed, low level, timber footbridge but still contains water and retains a significant leisure role, with the towpath providing the route for the Trans-Pennine Trail for walkers and cyclists. No closure order is in place for the canal.
- 4.4.9 The Trans Pennine Trail, a national recreational route for cyclists, horse riders and walkers, and part of the National Cycle Network, runs along the north bank of the River and follows the waters around West Bank and Spike Island before following the towpath of the St Helen's Canal to Fiddlers Ferry Power Station (Figure 4.2).

#### **4.5 Silver Jubilee Bridge & Aethelfleda Bridge**

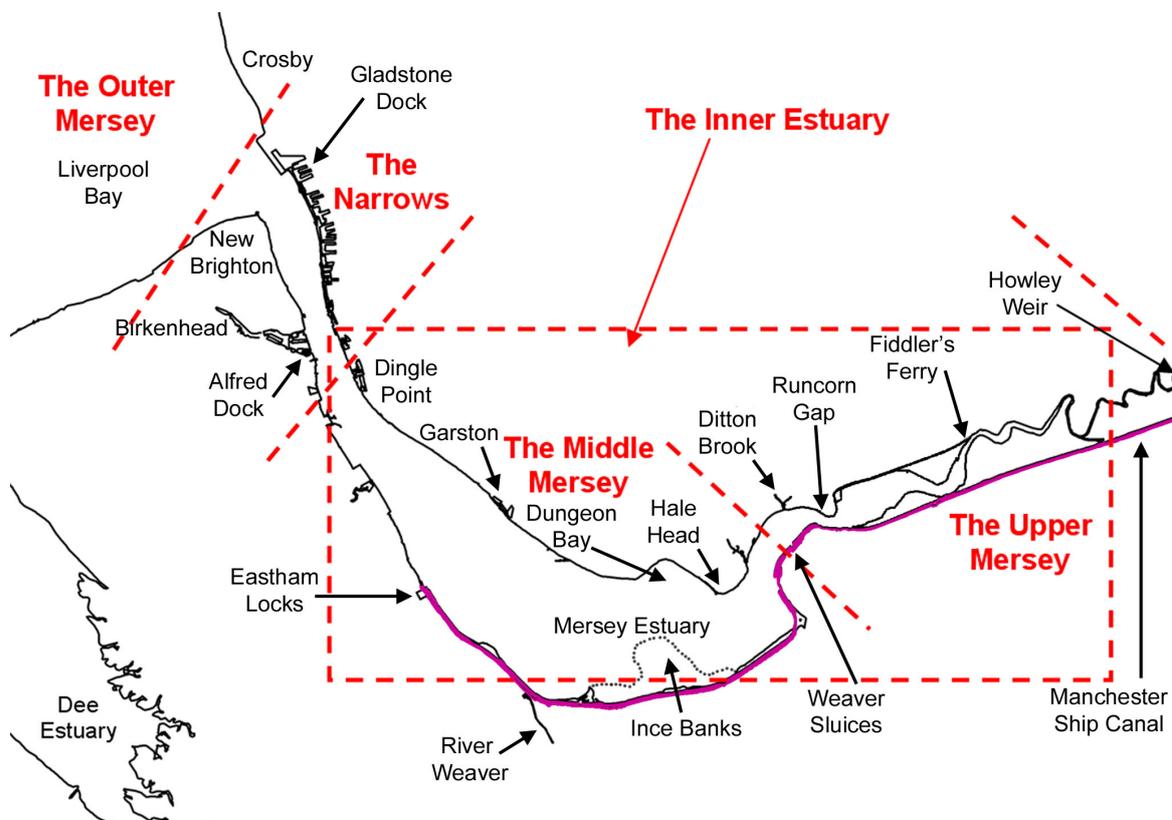
- 4.5.1 Runcorn and Widnes are currently connected over the River and Estuary by the SJB and the Aethelfleda Railway Bridge. These structures are Grade II and II\* listed buildings respectively.
- 4.5.2 The SJB consists of four narrow lanes with no hard shoulder on the bridge. A narrow, exposed pedestrian walkway is provided on the upstream side of the SJB. Cyclists should either use the traffic lanes or dismount and use the pedestrian walkway.
- 4.5.3 The railway line between Liverpool and London passes north-south through Runcorn served by a station in Runcorn Old Town, crossing the River at Runcorn Gap via the Aethelfleda Railway Bridge.

#### **4.6 The Mersey Estuary**

- 4.6.1 Halton and the surrounding area, including Liverpool, are dominated by the Estuary, a wide expanse of tidal water, sand banks and mud flats flanked, for the most part, by saltmarsh, except in the vicinity of the Runcorn Gap, where the Estuary is narrowed by a rocky sandstone outcrop.

- 4.6.2 The Estuary is sited on the northwest coast of England, north and east of the Dee Estuary. The Estuary extends from Liverpool at the mouth, to the tidal limit at Howley Weir (Warrington), some 46 km upstream.
- 4.6.3 The Estuary can be divided into four regions (as shown in Figure 4.3 below) each of which is discussed in detail in Chapter 7 (Hydrodynamics and Estuarine Processes):
- The Outer Mersey (New Brighton to the seaward extent of the Training Walls);
  - The Narrows (Dingle Point to New Brighton);
  - The Middle Mersey (Hale Head to Dingle Point); and
  - The Upper Mersey (Howley Weir to Hale Head).

**Figure 4.3 - The Mersey Estuary**



**Designations**

- 4.6.4 There are a number of Local Wildlife Sites (LWS<sup>4</sup>) and Local Nature Reserves (LNR) in the Upper Mersey Estuary and Halton (see Figure 4.4 (Appendix 4.1) for their location). These are designated primarily for wildfowl and waders but also because of the saltmarsh and associated intertidal habitats that are located upstream of the SJB.
- 4.6.5 In addition, immediately downstream of the SJB there are a number of sites having national and international designations for nature conservation purposes (see Figure 4.4, Appendix 4.1), including:

<sup>4</sup> Formerly known as Sites of Importance for Nature Conservation (SINCs)

- a. The Mersey Estuary Site of Special Scientific Interest (SSSI) as designated under the Wildlife & Countryside Act (1981) (amended by the Countryside and Rights of Way Act 2000);
- b. The Mersey Estuary Ramsar Site (as designated under the Ramsar Convention on wetlands of international importance);
- c. The Mersey Estuary Special Protection Area (SPA) for Birds (as designated under the European Commission Council on the Conservation of Wild Birds (79/409/EEC) on April 1979); and
- d. The Mersey Estuary European Marine Site.

4.6.6 The Ramsar Site, SPA and European Marine Site form part of a network of sites that are collectively known as Natura 2000.

4.6.7 On the north bank of the Estuary is an area of saltmarsh known as Widnes Warth and, on the south bank, is an area of saltmarsh known as Astmoor Saltmarsh. The Astmoor Saltmarsh is bordered by the Estuary and the Manchester Ship Canal. Wigg Island is also located on the edge of the Estuary abutting the Astmoor Saltmarsh. These areas, along with the Estuary habitats between them, are designated as a LWS. Wigg Island is also designated as a LNR and contains Wigg Island Community Park.

4.6.8 The Upper Mersey Estuary is also designated as an Area of Special Landscape Value (SLV) of local significance in the borough, with Spike Island and Wigg Island designated as Important Landscape Features due to their value as public open space, nature conservation interest and industrial heritage significance.

#### ***Manchester Ship Canal and Other Canals***

4.6.9 The Manchester Ship Canal runs along the southern bank of the Estuary. It is 56km long and flows between Eastham in Wirral and Salford in Greater Manchester. The Ship Canal provides deep water access for shipping from the Irish Sea via the Estuary to Manchester and accommodates sea-going vessels. The Bridgewater Canal, which is available for use by private boats, begins near the centre of Runcorn Old Town and runs eastwards alongside the Runcorn Expressway (this canal is discussed in further detail below). This canal is used mainly as a cruising waterway.

4.6.10 A small section of the disused Runcorn to Latchford Canal (known as the “Latchford Canal”) is located to the north of the Manchester Ship Canal on Wigg Island. This canal allowed navigation between Runcorn and Manchester until it was replaced by the construction of the Manchester Ship Canal. Large sections of the Latchford Canal were used as part of the construction of the Manchester Ship Canal leaving spurs where the Manchester Ship Canal deviated. A spur of this canal remains within the Wigg Island Community Park, which was one of the cuts dug as part of the Mersey and Irwell Navigation that originally allowed navigation between Runcorn and Manchester. The Mersey and Irwell Navigation used new cuts to ‘straighten’ the line of the canal on its route from the Upper Mersey Estuary to Manchester.

### **4.7 Runcorn**

4.7.1 The old town of Runcorn is separated from the Estuary by the Manchester Ship Canal. In 1964 the New Town of Runcorn was developed, and by the mid 1970s had grown to cover the area between the old town and the M56 motorway. The New Town was planned around a system of high-standard primary distributor roads, having some grade separated junctions, and connecting to district and local distributor roads. Pedestrian and cycle traffic is segregated from the primary network using Greenways<sup>5</sup>. Purpose built routes, Busways, are provided for local bus services.

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<sup>5</sup> Greenways have no separate legal status. They comprise a network of largely car-free off road routes connecting to facilities,

New industry has been attracted to the Astmoor Industrial Estate (between the Ship Canal and the New Town) in the north, at Preston Brook and Daresbury in the southeast. Heavy chemical industry still dominates the western side of the town, particularly at Weston Point.

- 4.7.2 Industrial units at the Astmoor Industrial Estate are located on the southern bank of the Estuary. To the south of which are the residential areas of Castlefields. As noted above, a number of LSOAs within this ward scored in the top 20% most deprived in England (IMD, 2007).
- 4.7.3 The Bridgewater Canal passes to the immediate south of the Astmoor Industrial Estate. The Bridgewater Canal is a 65km long, broad-beam canal that links Runcorn, Cheshire to Leigh in Lancashire, with a spur to Castlefield in Manchester. To the south of the Bridgewater Canal and the Astmoor Industrial Estate are the Daresbury and Central Expressways.
- 4.7.4 The Central Expressway runs southwards to the Central Expressway and Weston Link Junctions, which connect the Weston Point, Rocksavage and Central Expressways. These junctions are surrounded by the residential areas of Halton Lea, Beachwood and Heath within which social facilities are located, such as schools, allotments and playing fields. To the east of Weston Point Expressway is an area of open space at Rocksavage. This area contains a number of surface water drains around Clifton Hall.
- 4.7.5 The Flood Brook runs to the south east of these junctions, separated by the residential areas of Beechwood.
- 4.7.6 Junction 12 of the M56 Motorway is located to the south of Rocksavage on the urban periphery. This junction forms a key interchange between the M56 and the Central Expressway serving Runcorn and associated infrastructure. A railway line linking Frodsham Junction and extending towards Higher Runcorn and Dukesfield is located to the north west of this junction. The junction is bordered by Ashville Industrial Estate to the south and residential development at Beachwood to its north and west. The Weaver Navigation runs to its southwest serving the heavy industries situated on the northern bank of the Estuary in Runcorn to the west of Rocksavage.

### ***Regeneration Action Areas***

- 4.7.7 Economically, Halton is deprived and as a consequence work is underway to regenerate a number of areas that have been specifically identified by the Council. Those areas containing regeneration projects are known as Regeneration Action Areas (Ref. 2). They are identified below and illustrated on Figure 4.2 (Appendix 4.1).

#### *Action Area 1 – Southern Widnes*

- 4.7.8 The Southern Widnes Action Area is proposed as an area of mixed uses, including housing. Land use will also be considered for; business, general industry (provided there is no detrimental affect on residential amenity), residential institutions, dwelling houses, community facilities, shops (that serve the local community provided that UDP retail policies are complied with), food and drink outlets, recreation and leisure facilities and open spaces.

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public transport interchanges and open spaces in and around towns and cities and to the countryside; for shared use by people of all abilities on foot bike, or horseback for commuting, play or leisure (Ref. 1).

#### *Action Area 2 – Central Widnes*

- 4.7.9 The Central Widnes Action Area is proposed as a mixed-use area for uses supporting and enhancing the vitality and viability of Widnes Town Centre. The following land uses are specified in the UDP for this area; financial and professional services, food and drink, business uses, hotels, residential institutions, dwelling housing, non-residential institutions, assembly and leisure and shops (that serve the local community provided that UDP retail policies are complied with).

#### *Action Area 3 – Widnes Waterfront*

- 4.7.10 Within the Waterfront Action Area, the following land uses are specified for this area; employment, residential, leisure (where they comply with policy outlined in the UDP), open space, food and drink, and bulky goods retail warehousing (where it complies with policy outlined in the UDP). The nature, design and land use designated for this development will take advantage of the waterside location beside the St. Helens Canal and the Estuary.

#### *Action Area 4 – Runcorn and Weston Docklands*

- 4.7.11 The Runcorn and Weston Docklands Action Area is proposed as an area primarily for the development of freight handling, storage and distribution activities. Land uses specified in the UDP for this area include; business, general industry, storage and distribution, open space, uses for ancillary to employment area and education and housing. Development will take advantage of its waterside location and planning of the proposed land uses will be developed to benefit the area, e.g. commercially as a leisure and tourism facility.

#### *Action Area 5 – Halebank*

- 4.7.12 The Halebank Action Area will comprise land uses including; business uses, residential institutions, dwelling houses, community facilities., shops serving the local community, food and drink outlets serving the local community, recreation and leisure facilities and open space and public spaces.

#### *Action Area 6 – Castlefields and Norton Priory*

- 4.7.13 Within the Castlefields and Norton Priory Action Area, development will include new housing, open space and community use. There may be a requirement to replace existing housing and land currently used for community use which may become redundant, but this will allow for more efficient planning of existing land use to accommodate for the restructuring of the new proposed land uses.

### **4.8 Characterisation of Study Areas – An Overview**

- 4.8.1 Although the Project Area comprises a defined corridor, as described in detail in the text above and as shown on Figure 1.3 (Appendix 1.1), given the complexity of the existing environment in this area, effects associated with the construction and operation of the Project will not be confined to this route. Therefore, the study areas considered in the technical assessments undertaken for the EIA (reported in Chapters 7 to 20) will reflect the topic under consideration in each case. These individual study areas are set out in detail in the appropriate chapters of this ES under the heading “Description of Study Area” in each case.

## 4.9 References

- Ref 1 Halton Borough Council, 2005. Local Transport Plan, 2.  
Ref 2 Halton Borough Council, 2005. Unitary Development Plan. Chapter 1  
Regeneration, Part 2.