

## **Broad Character: Navigation**

### **Character Type: Navigation Feature**

#### **Irish Sea Regional Perspective**

##### **Introduction: Defining/Distinguishing Attributes**

Shipping along England's Irish Sea coast is today focused on the River Mersey, Heysham and Barrow. The heaviest traffic is in the River Mersey and the approaches to the docks at Liverpool. The extensive and mobile shoals and flats of the region require channels to be dredged regularly to keep them open to a sufficient depth for modern shipping. Historically, dredging and training walls have also been necessary to maintain navigation in the Rivers Lune and Ribble and on the approaches to the ports of Barrow and Silloth.

##### **Historical Processes; Components, Features And Variability**

Navigable channels have been used since prehistoric times (Cunliffe 2001). On the Irish Sea, travel was generally characterised by short-haul pottering between beaches on rocky foreshores and islands, and there were (and still are) numerous inshore lakes and narrow necks of land inviting portages.

Historically, Chester was the main port of the region, with significant traffic from the medieval period with Ireland and Europe. As a result of difficulties in navigating the River Dee, however, it remained small, and by the 16<sup>th</sup> century a new quay had to be built at Neston, further downstream (Ashmore 1982, 23).

Training walls or banks were also constructed along the navigation channels on the approaches to Liverpool which became a significant port from the late 17<sup>th</sup> century. The approaches were notoriously difficult, however, and pilotage was compulsory for most ships entering the Mersey. Suction dredgers were used from 1895 to deepen the main channel, and in shallower areas such as dock entrances, dredgers with continuous chain of buckets were used (Stammers 1999).

The River Ribble has long been used for navigation. Evidence for prehistoric navigation, in the form of a Bronze Age boat, was uncovered from peat deposits during construction of Preston Docks in the 1880s, and there was a harbour at Preston in the medieval period, regulated by a court called the 'Portmote' ([www.preston.gov.uk](http://www.preston.gov.uk)). By the 17<sup>th</sup> century, however, silting in the River was causing navigation problems for larger vessels. Attempts were made to improve the navigation along the Ribble from the early 19<sup>th</sup> century, but it was not until after 1838 that a series of works were carried out (Ashmore 1969, 219). The river was then dredged and a band of sandstone removed at Ashton to deepen the channel, and below Ashton Marsh, training walls were built on both sides of the river.

The flats and shoals of Morecambe Bay were particularly problematic for navigation, and dredged channels had to be maintained to the main ports at Lancaster, and later Barrow. Navigation along the River Lune was also difficult, and port facilities first developed at Sunderland Point, near the mouth of the river for Lancaster's growing trade along the coast, with the Baltic, and with the growing Atlantic trade (Ashmore 1969, 209-13). In the mid-18<sup>th</sup> century, St George's Quay was built to take ships at Lancaster itself, but as ships increased in size they could not reach so far up-river, and New Quay was constructed further downstream. Lancaster declined as a port, however, because of the continuing difficulties of navigating the river, even though attempts were made to dredge it.

The docks complex at Barrow was built in the second half of the 19<sup>th</sup> century, excavated out of the mudflats on the side of the Walney Channel. Here, extensive training walls were

constructed along the side of the Walney Channel to maintain the approaches. Further north, along the west Cumbrian coast, ports were constructed or upgraded to minimise the effects of river silting. The ports of Maryport and Workington were built at the mouths of fast-flowing rivers which could deposit large quantities of river silt and gravel. The docks were constructed to make the most of river currents to scour the harbours, even though navigating channels had to be maintained at the entrances to the docks to overcome the effect of sand deposits along the coast (Ashmore 1982, 196-7).



*The River Mersey. Approaches to the river are maintained by dredged channels and training walls at the mouth of the estuary*

### **Values And Perceptions**

Navigation channels and dredged areas are important since they form part of working ports or harbours. They also help define the visual character of some coastal areas, perhaps subliminally for many coastal visitors, by creating zones where commercial shipping is a frequent element in the view. Dredging craft are often found moored in harbours ready for service, becoming part of the landscape/seascape of coastal communities. For mariners the importance of maintaining a safe draught is imperative to their livelihoods and safety.

### **Research, Amenity And Education**

The history of navigation channels and dredging is an important aspect of how rivers, estuaries and shallow waters have been adapted and changed to accommodate navigation, and how these navigable routes have been utilised. The process of upgrading and improving channels can sometimes be observed in successive phases of training walls on the approaches to ports and in navigable waterways. Many navigable channels are now lost or buried, but stretches of wooden pilings often survive along the lower reaches of navigable rivers and in estuaries, indicating the line of former routes. They may offer the potential for understanding

associated features, such as wrecked craft, wharves, pilings, jetties, artefacts and palaeo-environmental components.

This Character Type offers limited use for amenity usually because the channels are actively worked. Nevertheless, following the closure of the Port of Preston in 1981 ([www.preston.gov.uk](http://www.preston.gov.uk)) the navigable channels of the River Ribble have been used principally for recreational watercraft. In particular, the Ribble Link now joins the Lancaster Canal to the rest of the national canal network, via the River Ribble.

### **Condition And Forces For Change**

Dredging of navigation channels has left its imprint on the historic character of the waters in the United Kingdom. For example, the British Marine Aggregates Producers Association (BMAPA) and English Heritage have put in place a *Protocol for Reporting Finds of Archaeological Interest* (BMAPA and English Heritage 2005). This protocol applies to the wharves and vessels of all BMAPA companies and requires that any finds discovered at a wharf, onboard vessel or on the seabed are reported to ensure that our common submerged heritage is understood and protected. This positive initiative is an example of a collaborative approach that could be taken as an example to be applied in other marine industry sectors.

Sandbanks are mobile entities and can have a significant impact on this Character Type. Navigation channels may need to be moved in order to accommodate shifting sandbanks, resulting in disused or buried channels. This can be seen at the approach to the Mersey River Estuary, where maritime charts throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries show the shifting of sand banks and the subsequent movement of navigable channels.

In general, the survival of river channels is fairly good even if most components are no longer used or have been developed by industry. Quays and wharves were substantial structures, and many still survive, being the foci of activities as open spaces towards which roads, streets and lanes run.

### **Rarity And Vulnerability**

This Character Type has a wide variety of well preserved components from the early modern period onwards. In areas that are continually dredged today, the potential of encountering prehistoric or historic remains could be considered low because dredging will have an intrusive impact on the seabed and river banks. However, in some places, there may be remnants of historic dredging activities.

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