The Thames Estuary

London has served as a major port since Roman times and currently handles over 30,000 commercial vessel movements per year. The Thames Estuary, which, in navigation terms, connects the London conurbation to the North Sea, is a dynamic environment with a large tidal excursion. For example, on a large spring flood tide beginning at low water, a particle of water would move up the estuary about 12km if it started at Gravesend. If the particle started at Greenwich, the distance moved would be up to 17km (HR Wallingford, 2001).

The riverbed of the Thames Estuary, the tidal Thames, (from the upstream limit at Teddington to Mucking in Essex) consists primarily of a hard bed of gravel, stones, clay or chalk. There are two exceptions, one being the ‘mud reaches’ (Gallions, Barking and Halfway reaches) and the other being Gravesend Reach. Downstream of Mucking the seabed of the inner and outer estuary comprises fine sands interspersed with black mud in areas such as Southend Flats and Blyth Sands (Inglis and Allen, 1957 in HR Wallingford 2001).

The Thames Estuary is a sensitive natural environment as reflected by the national, European and International conservation designations. The majority of the designated sites are located in the inner estuary from Mucking on the Essex side and Shornmead Fort on the Kent side, and extend seawards to include much of the intertidal habitat. The importance of the Thames as a wildlife corridor is recognised by its designation as a Site of Importance for Nature Conservation (SINC) and the Tidal Thames Habitat Action Plan aims to provide for the protection and enhancement of its characteristic habitats and species populations. Environment Agency surveys have identified over 120 species of fish in the Thames and the area provides spawning and nursery habitats for a range of species (e.g. sole and bass).

The estuary supports an important commercial fishing industry providing high quality fresh products to both local and European markets. This local industry provides over 50% of all UK cockle landings and also significant catches of sole as well as herring, sprat, thornback ray, bass, grey mullet and cod to mention but a few. The large populations of cockles are maintained at a sustainable level by the Kent and Essex Sea Fisheries Committee under a Regulating Order and other fisheries are controlled under EU and national legislation.

The Thames Estuary also supports many other interests and activities including archaeology and recreation.

Commercial vessels of various sizes visit the Port of London delivering cargo or collecting cargo for export or transhipment. Some deeper-draughted vessels can only transit the Thames Estuary around high water. Leisure and fishing craft also use the estuary although, for the most part, these are shallower in their draught.