

10 DESIGNATED CONSERVATION SITES AND SPECIES

This section considers the effects from the project on the coastal designated conservation sites. Any potential in-combination impacts are discussed in Section 16.

10.1 Existing Environment

The coastal areas of Kent and Essex are designated as SSSIs and SPAs for the bird interest supported by the existence of extensive intertidal mud and sandflats. These areas are known as European Marine Sites (EMSs). In the Thames Estuary, EMSs are located in the middle to outer estuary area and include the following sites (as shown on Figure 2):

- Thames Estuary and Marshes SPA;
- Benfleet and Southend Marshes SPA; and
- Essex Estuaries EMS (comprising SAC and several SPAs).

The Thames Estuary is thought to host conservation fish species including twaite shad, allis shad and lamprey. However, conservation is related to protection of spawning sites which may be upriver in the Thames but this has not been established.

10.1.1 Thames Estuary and Marshes SPA

The Thames Estuary and Marshes SPA includes constituent SSSIs on both the Kent and Essex sides of the Estuary and is designated for its ornithological interest including the following:

- Internationally important populations of regularly occurring Annex 1 species (Article 4.1 of the EU Birds Directive).
- Internationally important populations of regularly occurring migratory species; and
- An internationally important assemblage of waterfowl (Article 4.2 of the EU Birds Directive).

A detailed description of the conservation interest can be found in the Regulation 33 advice prepared by English Nature and the key sub-features are as follows:

- Intertidal mudflats;
- Intertidal saltmarsh; and
- Intertidal shingle.

10.1.2 Benfleet and Southend Marshes SPA

The Benfleet and Southend Marshes SPA is designated for its ornithological interest and qualifies under Article 4.2 of the EU Birds Directive by regularly supporting at least 20,000 waterfowl. In addition it qualifies for supporting populations of European importance of the following migratory species:

- Ringed Plover (on passage);
- Dark-bellied Brent Goose (over winter);
- Grey Plover (over winter); and
- Knot (over winter).

Further details on the interest features can be found in the relevant Regulation 33 advice prepared by English Nature.

10.1.3 Essex Estuaries SAC

The Essex Estuaries SAC is designated for the following interest features:

- *Salicornia* and other annuals colonising mud and sand;
- *Spartina* swards;
- Atlantic salt meadows
- Mediterranean and therm-Atlantic halophilous scrubs;
- Estuaries; and
- Mudflats and sandflats not covered by seawater at low tide.

A number of sub-features have been identified relating to each of the above interest features and further information can be found in the relevant Regulation 33 advice. The SAC forms part of a wider EMS, which includes the five estuaries on the Essex coast that are designated as SPAs.

10.2 Change in Extent or Nature of Coastal Habitat

Impacts on designated sites are considered against the conservation objectives for that site. In essence, the conservation objectives generally require maintenance of favourable condition, for example, by maintaining geographical extent of the habitats etc. The effects of the proposed placement have been considered against the relevant conservation objectives and no impacts are predicted on the extent of nature of the habitats at the designated conservation sites due to the following factors:

- The geographical distances from the designated sites to the North Edinburgh placement site;
- No significant changes are predicted to sediment transport and erosion patterns outside the placement site boundary;
- The sediment to be placed is chemically cleaner than the existing seabed material; and
- No impacts are predicted on water quality.

10.3 Interference with Birds on Route to the Coastal Sites

Birds on route to and from the coastal conservation sites may fly over the North Edinburgh Channel. The only visible sign of the placement operation will be the dredger. The dredger will be one of a large number of vessels on the water in the Thames Estuary and will not create any cause for interference to migrating birds. **No impact** is predicted.

10.4 Interference with Conservation Fish Species

There is no evidence to suggest that there are spawning populations of conservation species in the outer Thames Estuary. **No impact** is predicted on these species.

10.5 Subtidal Sandbanks and Reefs

The JNCC and English Nature are presently considering the designation of subtidal sandbanks as SACs under the Habitats Directive. It is assumed that such designation would reflect areas of high biological diversity or the presence of *Sabellaria* reef structures. The marine biological survey found that the majority of the survey areas was impoverished and characterised by mobile sands. Evidence of *Sabellaria* was found at two sites only, in extremely low numbers and there was no evidence to suggest that reef structures are present. Based on the survey data, the North Edinburgh Channel placement area and its environs are not considered likely to fulfil the requirements for designation under the Habitats Directive.

10.6 Summary of Impacts

No impacts are predicted on the coastal conservation sites or conservation species as a result of the sand placement operation.