Port development and dredging in Natura 2000 estuaries and coastal zones

European Commission guidance

- Estuaries are highly dynamic and productive ecosystems. Many have been designated as Natura 2000 sites in view of their high biodiversity value. Estuaries are also prime locations for ports, especially in Western Europe as they provide the necessary shelter and suitable conditions for fast access to the sea.

- In order to help reconcile nature conservation and economic development in these areas, the European Commission has published a new guidance document on the implementation of the Birds and Habitats Directives in estuaries and coastal zones, with particular attention to port development and dredging.

- The Guidelines were developed by the Commission in close co-operation with major stakeholder organisations with the view to explaining the provisions of the Nature Directives in a ports and estuaries context, and to facilitating their implementation.

- To accompany the guidelines, the Commission has also published a staff working document on ‘Integrating biodiversity and nature protection into port development’ which acknowledges the positive attitude of the port sector towards reconciling port development with nature protection. The document provides an important signal demonstrating the port sector’s active commitment to sustainable operations.
Many of Europe's estuaries are designated Natura 2000 sites in view of their high biodiversity value, especially for migratory birds.

Europe's estuaries – a rich natural resource

Estuaries form a transition zone between river environments and ocean environments. They are subject to both marine influences, such as tides, waves, and the influx of saline water; and riverine influences, such as flows of fresh water and sediment. These contrasting influences are the reason why estuaries are among the most productive, dynamic and complex ecosystems in the world.

Estuaries are of prime importance for wildlife and of major value in terms of their rich natural resources (e.g. as nursery grounds for commercially important fish and shellfish). In addition, they offer a wide variety of economically valuable ecosystem services such as shoreline stabilisation, nutrient regulation, carbon sequestration, detoxification of polluted waters and energy supply.

The strategic role of Europe's ports

Estuaries are often ideal locations for ports, harbours and shipyards as they provide the necessary shelter for ships as well as access to the sea.

European ports fulfil a strategic role in the development and realisation of global trade. They are key points of modal transfer and are of vital economic interest, handling up to 90% of Europe's international trade and 40% of the volume of tonne-kilometres carried out in intra-Community trade.

In 2007 the European Commission published a Communication on a European Ports Policy which examines the key challenges and opportunities that the industry faces. It also provides a framework for action aimed at meeting these challenges. This includes providing further clarifications of relevant Community rules.
More than 1,200 merchant ports cover some 100,000 km of European coasts.

New port developments and Natura 2000

In order to respond to the rapid growth in international trade, some ports are periodically required to expand their infrastructure. Inevitably there will be occasions where port and fairway developments and maintenance and Natura 2000 designation overlap and at times may have conflicting objectives.

The Habitats and Birds Directives do not preclude the possibilities for economic development and use of estuaries and coastal zones within or around Natura 2000 sites. Instead they lay down stepwise procedures to ensure that any such developments are done in a way that is compatible with the protection of species and habitats of European importance for which the sites have been designated.

In the case of projects of overriding public interest, and in the absence of alternative solutions, the Directive also provides a mechanism for allowing damaging developments, provided that compensation and adaptation ensures that the overall coherence of the Natura 2000 Network is protected.

Commission guidance

The application and interpretation of environmental legislation, including the EU nature directives, has presented a number of challenges to the port sector in recent years, which has sometimes resulted in delays in port development projects.

That is why the Commission has developed a new guidance document on the implementation of the Birds and Habitats Directives in estuaries and coastal zones, with particular attention to port development and dredging. The document provides a series of recommendations and elements of good practice to enhance sustainable port development and management in or near Natura 2000 sites.

Estuaries are among the most productive, dynamic and complex ecosystems in the world.
Key recommendations from the guidance document

- The design of plans or projects in estuaries should always be based on mutually beneficial strategies with a view to achieving dual goals of both Natura 2000 conservation objectives and socio-economic objectives, according to the ‘working with nature’ concept.

- Early consultation with environmental stakeholders, and indeed all stakeholders, is important in ensuring that sustainable solutions are found. It generally leads to a faster, smoother decision-making process.

- It also enables plans and projects to take account of nature conservation interests at the initial design stage when it is easier to find solutions that minimise, and where possible, avoid negative effects on Natura 2000 sites.

- Maintenance of ports and navigational access should be dealt with in the context of integrated management plans for the entire waterway or the affected Natura 2000 site. Capital dredging operations should be designed as a part of sustainable dredging and sediment management schemes.

- Damage prevention or avoidance measures should always be preferred to compensation measures.

- In case of any remaining minor scientific uncertainty with regard to the effects of a plan or project or the related mitigation or compensatory measures, the measures should include a pre-defined and validated scheme to monitor the potential impacts and a framework to adapt the mitigation and compensation measures to the actual impacts.


Estuaries offer a wide variety of economically valuable ecosystem services, such as shoreline stabilisation, nutrient regulation and detoxification of polluted waters.