

# Ecological Compensatory Measures during Le Havre port development in a Natura 2000 estuary - FR

## 1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

## 2. Key Approaches

- Integration
- Participation
- Ecosystems based approach
- Technical

## 3. Experiences that can be exchanged

The agreement to specific environmental compensatory measures (e.g. artificial islands for marine birds) as a response to destruction of protected natural habitat and other impacts due to the development of economic infrastructures.

## 4. Overview of the case

This case describes the process of development of Port 2000 – a project of expansion for Le Havre Port (NW France) integrated into a Natura 2000 estuary. The impacts of the new port infrastructures under the Birds and Habitats Directives lead to the adoption of environmental compensatory measures, due in great part to the pressure from NGOs and the European Commission (EC). These measures included ecological options and engineering operations such as the construction of artificial islands for birds and marine mammals, the preservation of an important biodiversity site and the restoration of mud-flats.

## 5. Context and Objectives

The Seine Estuary is a Natura 2000 protected site, in the NW France. The port of Le Havre is located at the mouth of the Seine River, and co-exists with diverse biotopes (sandbanks, bare or vegetation covered mud-flats, wetlands and pastures) and interesting biodiversity. It is the first port at the entrance of the English Channel. It is France's largest commercial port for external trade, general cargo, containers, the 5th largest in Northern Europe in terms of volume of merchandise handled but the largest one in Northern European coast in terms of dimension. Due to its maritime conditions, it is able to accommodate very large ships throughout the whole year.

Despite this, its port infrastructure and its land and river routes reached a saturation point which led to a large expansion project – Port 2000. The new installations consisted of twelve 350m loading berths on a single 4.2 km quay protected by rubble-mounted breakwaters of 5 km and a dredge entrance channel (15.5m deep). These infrastructures will be able to handle various 300m ships simultaneously and process an annual volume of merchandise up to 4 million Twenty feet equivalent unit.

Behind the planning of Port 2000 lies a long-running dispute between EC and France on the obligation to designate large parts of the Seine estuary as SPA. The EC considered that France had reserved far too much area for future industrial development and not enough for conservation purposes. Against this background planning for Port 2000 started in 1994 without the full realisation of the impact of EU habitat legislation.

Notwithstanding a significant extension of the SPA of 17320 ha in 1997, France was mandated by the European Court of

Justice (ECJ) to present better propositions in March 1999. The Court concluded that, particularly with respect to the extension of the Le Havre port, France had taken economic aspects too much into account and did not give enough weight to other considerations.

The port impact on the estuary is without doubt significant. As an example, the creation of a swinging area as part of the quay meant that about 30ha of SPA would be destroyed.

## 6. Implementation of the ICZM Approach (i.e. management, tools, resources)

### a) Project Management

Port 2000 project is being carried out by a group of partners led by the Autonomous Port of Le Havre. The EC was involved in discussions regarding the designation of SPA in the estuary and legal measures for its protection.

The restoration measures for the estuary involve NGOs and are now placed under control of a Scientific Committee. As part of the Global Management Plan for the Estuary, the follow-up Committee combines all the actors involved. Twice annually the progress of the compensatory measures is evaluated in co-operation with the EC and the main stakeholders and a report of the success of the implementation is also compiled for the EC on a half-yearly basis.

### b) ICZM tools

Once France had been judged by the ECJ for insufficient habitat protection of the Seine estuary in 1999, the authorities adopted a holistic view and developed a more integrated approach to the whole area in 2000. Further discussions with the EU established the development for compensatory measures to offset the negative impact of the new port on the conservation objectives and in accord with the Habitats Directive. A Committee of independent experts drafted guidelines for an overall ecological management plan for the estuary that went far beyond the impact of Port 2000, including proposals for ecological engineering operations and work to be carried out as part of the port project. The estuary had been under severe environmental strain in any case and the compensation measures targeted restoration of the estuary functions. The package of measures was reviewed by, and agreed with, the European Commission, and included the ideal site for birds, its preservation and protection. The restoration measures were agreed with NGOs. Within recent national legislation, Port 2000 was the first large project in France to hold a public debate on the issue, which included over 50 public meetings and several alternative schemes presented by the port authority and NGOs. In May 2001 work began on nature protection measures followed by land reclamation and quay development. By 2005 a large fraction of the quay had been completed and part of the compensation measures had been fulfilled.

The most important compensation and restoration measures were:

- Mudflat Restoration – The tidal and sediment dynamics lead to considerable downstream shifting of the mouth of the estuary and to the decreasing of the mudflat surface. Dykes were constructed to help regulate the tides and create inter-tidal mud-flats. Their location was decided after modelling studies and converging opinions of several experts, taking in consideration several ecological aspects.
- New resting areas for birds – In order to compensate for the loss of the SPA area, 4 hunting pools have been changed into a large resting area (around 40 ha) with a nesting island in the middle. In addition 3 artificial islands will also be built in the mouth of the Seine. One such island was completed in 2004 and is intended for resting marine birds.
- Creation of 70ha conservation area – Numerous amphibians, birds and various species of protected orchids (including the very rare *Liparis loeselii*) were spared as the planned roads were moved considerably northwards. The area became classified as a “voluntary nature reserve”.
- Strengthening the quality and the ecological interest of the nature reserve – Port 2000 is focused on hydraulic works and on the adaptation and sustainable integration of agriculture and hunting activities with the interests of the Nature Reserve.
- Creation of a fishing observatory – Set up to collect data about the socio-economic aspects of fishing and to assess the impact of Port 2000, both in short and long term, on fishing resources and their exploitation. Fishermen and scientists are fully involved in this initiative, which is overseen by the Prefect and the Port Authority.

In addition, a number of other projects was financed to support the environmental management of the estuary. The results of these measures on the diversity and density of the different species are evaluated in twice-yearly. These results are presented

regularly to the scientific and technical council, the Estuary Council and the Follow-up Committee.

## 7. Cost and resources

€ 50 million used for the compensation measures, corresponding roughly to 5% of the total investment for the Port 2000 . The first out of 3 artificial islands cost €10 million to construct.

## 8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

The EU Habitats and Birds Directives can have a very significant impact on nature conservation and on development plans. The approach prescribed by the Directives provides for a spectrum of possible solutions and alternatives, including the creation of compensation areas. Valuable habitat sites can be created thanks to planned human intervention. Important expertise has been developed by the ports and dredging industries in Western Europe.

The evaluation of the compensatory and restoration measures in the Seine Estuary is ongoing. The artificial island built has been effective in attracting a range of bird species and ornithologists are confident of progress in the future.

## 9. Success and Fail factors

This case reveals the importance of having an early public debate and multidisciplinary studies, but also the procedural aspects of complying with the Birds and Habitats Directives in the introduction phase.

## 10. Unforeseen outcomes

Sites are under debate with respect to the Birds and Habitats Directives as well as the Water Framework Directive. This is most likely to result in the need for compensation sites for birds but also financial compensation.

In 2004 the designation of the navigation channels has been drawn in to new discussions. Great efforts are being made to establish a solid implementation and management plan for the Seine Estuary.

## 11. Prepared by

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## 12. Verified by

It has not been possible to verify this case.

## 13. Sources

- Paralia Nature Report – Phase II Report (2005). Institute for Infrastructure, Environment and Innovation (IMI). Brussels.
- Port Development and EU Habitat Directive (2003), F. Mink & A. Meester. [www.european-dredging.info](http://www.european-dredging.info)



Final Report - Paralia Nature Phase II (1.24 MB)



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