

PROJECT SHEET

BARCELONA, ARTIFICIAL LAGOON

CREATION OF ARTIFICIAL LAGOON AS COMPENSATION FOR THE EXTENSION OF THE PORT OF BARCELONA

Increasing or compensating nature is one of the challenges in modern infrastructural projects

INTRODUCTION

Within the scope of the extension of the Port of Barcelona compensation was required for nature to be preserved. A natural reserve, south of the Port of Barcelona and north of the International Airport of Barcelona, had to be increased and was realized within the city limits of Prat de Llobregat by the use of the cutter suction dredger Para and its auxiliary equipment.

A temporary artificial lagoon was created by moving part of the existing beach more seawards. In a later stage, the temporary lagoon, a surface of approx. 24 ha., will be filled up by a local contractor with muddy dredged materials out of the Barcelona port area. By doing so, finally, a wet area will be created, breeding place for the famous bird called "Chorlitejo Patinegro" (the Llobregat Delta is the breeding place for 40 % of these birds).

FEATURES

Client	Autoridad Portuaria de Barcelona
Location	Barcelona, Spain
Period	July - September 2004
Contractor	Sociedad Española de Dragados SA



A Location map
B Cutter Suction Dredger "Para"



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WORKING METHOD

Approximately 1,150,00 m³ of the former beach was dredged and pumped from its original location towards the sea. An entrance channel to the area was dredged, material was placed in the fill area some 200 m away from the original beach in the sea. On both sides of the entrance

(and exit) channel stockpiles of sand were put up and once finalizing the new beach from the Llobregat breakwater towards the Bunyola breakwater the cutter suction dredger Para left the artificial lagoon and closed the channel.

All equipment used adhered to the strict environmental regulations.



C Artificial lagoon, from start to finish