



REHABILITATION OF THE CAPBRETON DUNE SYSTEM 2015 - 2016

IDENTITY CARD

GEOGRAPHICAL LOCATION

Nouvelle Aquitaine region, Municipality of Capbreton

NATURAL RISKS TARGETED Coastal erosion and dune movement

HABITAT(S) CONCERNED Dunes

TYPES OF NBAS

Restoration and sustainable ecosystem management

PROJECT LEADER AND PARTNERS

Capbreton Municipality

Linked with the ONF (French National Forest Office) General Interest Mission to stabilise and protect coastal dunes at regional level, and with the GIP Littoral's regional beach plan development scheme and regional coastal strip management strategy.



FUNDERS AND BUDGET

- ERDF (16.79 %)
- State (20.63 %)
- Nouvelle-Aquitaine Region (24.43 %)
- Conservatoire du Littoral coastal protection agency (6.32 %)
- Campeole Fierbois campsite (8.53 %)
- Capbreton Municipality (23.29 %)

552 524 € exc. VAT



PROJECT OBJECTIVES

- Adaptation to climate change : Resistance to coastal recession through the restoration and sustainable management of dunes
- For biodiversity : Restoring the biodiversity of dune flora and fauna

CONTEXT AND ISSUES

Capbreton's dunes lie between the beach and the densely urbanised seaside town, which puts a great deal of human pressure (trampling) on these fragile natural habitats.

Since the 1990s, the dunes became very exposed to wind as a result of a lack of management and chronic marine erosion. In the 2000s, dune movement began to cause the silting-up of urbanised areas (Santocha, Piste, Océanides (including a car park) and CCAS), generated by very significant inland sand movements.

Before © ONF

REGULATORY CONTEXT

- Partly, on Conservatoire du Littoral and Natura 2000 sites in
- Remarkable coastal area
- Listed site

ACTIONS IMPLEMENTED

Faced with those problems of erosion and dune mobility, in 2012 the local authorities launched an initiative to restore the dunes. Following several public meetings and consultations with property owners, it obtained the agreement of the vast majority of dune owners. With the support of the French National Forest Office (ONF), in 2013-2014 it carried out a preliminary study, divided into two phases (an inventory and analysis of existing structures, followed by a proposal for the restoration of the dunes), the main aim being the stabilisation and restauration of these natural habitats. A further concomitant objective is to organise the flow and reception of visitors in the various sectors.

In autumn 2015, rehabilitation work was launched by the local authority in collaboration with the ONF. Using the existing dune profiles (« remodelled » by the wind), remodelling and reprofiling were carried out to limit wind erosion and make the habitat more resistant. The topography of the dunes was thus smoothed to reduce the wind load and prevent sand being blown away.

The sand was stabilised by thatching it with branches to limit the action of the wind and by planting dune-structuring plant species such as marram grass (*Ammophila arenaria*). Flows of pedestrians were channelled through the creation of a « dune path » to limit the trampling of the dunes and link the various beach access sites with each other and with the neighbourhoods behind them.

GOVERNANCE ADOPTED

Steering committees, to present and validate the project were held with the funding partners (European Union, State agencies, Region, Landes Department, Conservatoire du Littoral, etc.).

The local population was involved in the project and made aware of the need to preserve these habitats through public meetings, the municipal website and the setting up of citizen worksites during restoration and annual maintenance.

Pupils from Capbreton's primary schools took part in the planting of the Marram Grass and were made aware of the vulnerability of the site.

CALENDAR

PROJECT SCHEDULE

2012	Public meetings Consultation with landowners
2013 - 2014	Preliminary study for dune restoration
2015	Remodelling of dunes Stabilisation of dunes • Dune thatching
	 Planting of dune plant species
	Creation and signposting of a « dune path »





BENEFITS AND CONTRIBUTIONS OF THE PROJECT

BENEFITS REGARDING TARGETED ADAPTATION ISSUES

- **Coastal erosion :** The project has led to a lasting reduction in wind erosion on the dunes.
- Dune mobility : the sectors threatened by dune recession (Beausoleil, la Piste, CCAS) are now under control.



BENEFITS IN TERMS OF PROTECTING, MANAGING ANI RESTORING BIODIVERSITY

The control of wind erosion on the dunes has enabled the development of the flora, and in particular the recovery of a very rich heritage flora, characteristic of the southern Landes dunes. Many protected or heritage species that had disappeared since the 1990s, such as Astragalus baionensis, Fringed Pink and Woolly Hawkweed, have reappeared following the stabilisation work. Ruderal species are gradually being replaced by dune species.



OTHER BENEFITS ACHIEVED

The organisation of pedestrian flows and the improvement of beach access have improved conditions for visitors along the dunes. The dune walk that was created has made it possible to showcase these ecosystems, raise public awareness with educational panels along the way and limit illegal unauthorised paths. All the urbanised areas are now connected to the various authorised beach access points.

Moreover, the work carried out, while being a major investment, has reduced annual maintenance costs. Today, this maintenance, which costs the local community between €10,000 and €20,000 per year, is helping to preserve and stabilise 2.5 kilometres of dunes and protect the urban development just behind them.

Since 2017, actions to maintain the dune system have been an integral part of the local management strategy for Capbreton's coastal strip and are formalised in Axis 6.1 based on a flexible management method, i.e. actions to support natural processes in dune habitats. These actions are divided into two areas of action :

- Axis 6.1: implementation of a cooperation agreement between the ONF and the municipalities of Capbreton and Labenne
- Axis 6.2: implementation of actions assisting natural processes

The annual costs are between €20,000 and €30,000 in Capbreton and are 80%-subsidised by the local strategy funding partners.

MONITORING INDICATORS

Adaptation to climate changes

Erosion : A programme of maintenance work enabling the protection and stability of the Capbreton dunes. This work, which includes maintenance of the dunes (thatching and planting) and the path (repairing of enclosures and picket fences), is carried out by the municipality and/or by local residents. Since 2017, this work has been complemented by the planting of Christmas trees by volunteers supervised by the municipal authority and the ONF.

Biodiversity

Biodiversity : Botanical monitoring will be carried out in all sectors as soon as the project is completed. These annual surveys reveal monitoring changes in the richness of the dunes, particularly in the rehabilitated sectors.

Others

Usage and visitor numbers : Data on daily beach use provided by the town's technical services and by a video control station for the Santocha, la Piste and Océanides beaches from 2016 to 2020.

LEVERS FOR SUCCESS

- **Technical expertise :** The ONF is responsible for stabilising and preserving the natural dune areas which was one on the key points of the success of the project.
- Funding: The GIP Littoral beach plan scheme and the involvement of financial partners (European Union, State, Region, Department) permitted securing regional fundings.
- Institutional and political support : support from GIP Littoral and government agencies throughout the consultation phase (technical committees, steering committees, public meetings).

RECOMMENDATIONS

- **Property**: Take into account the security of land or at least the management of this land, particularly when juxtaposing public plots with private plots as here. Public meetings on the benefits of the project and contact with landowners by the local authority have been organised and authorisation agreements enabling work to be carried out on their plots have been signed.
- Administrative procedures : Take into account the time required for administrative procedures (Natura 2000 impacts, water law and public inquiries).
- **Reproducibility :** Flora surveys carried out annually Highlight the results of floristic monitoring which confirm that the seed bank present in the sands can be re-established after a long period of destabilisation. The techniques used can be reproduced on other large-scale restoration sites.

ANALYSIS ACCORDING TO THE IUCN'S GLOBAL STANDARD FOR NATURE-BASED SOLUTIONS



FOR FURTHER INFORMATION

Project webpage on the Capbreton municipal website : https://www.capbreton.fr/infos-pratiques/environnement/lelittoral/la-strategie-locale/la-protection-de-la-dune/travaux-derehabilitation-du-cordon-dunaire.html

PROJECT LEADER

• Eric Hamelin Territory Unit Director, Capbreton Municipal Authority, dirpolter@capbreton.fr

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FACT FILE EDITOR

Marion Poncet IUCN French Committee marion.poncet@uicn.fr





