

The project schedules works aimed at restoring and conserving the pre-existing wetlands and at protecting the residual dune formations along the coastal area of the Sentina Natural Reserve.

The foreseen actions will address coastal areas characterized by different ecological aspects, including the ones corresponding to the priority habitat 1150 Coastal lagoons.

The restoration of coastal wetlands and of the dune system is aimed at the following goals :

- Restoration of plant and animal biodiversity;
- Increase in the naturalistic potential of the Reserve also for the purpose of touristic-naturalistic fruition of the area and of environmental education;
- Improved water quality;
- Mitigation of seawater intrusion;
- Control of marine invasion;
- Improved environmental quality of the area;
- Resilience restoration in the coastal area with relation to the possible risks of sea level rise.

Actions and means

During the first phase, the project foresees the realisation of a set of actions introductory to the following restoration ones: it deals with specialist studies necessary for the final planning of the interventions (geologic, hydrologic, topographic studies). Moreover, it will be necessary to submit the definitive project to the incidence evaluation, as foreseen by the law in force.

The restoration actions will be realised through setting an articulated system of environments – connected, integrated and functional one to the other – each of them actually representing a single “restoration action” :

- 1 - Freshwater pond;
- 2 - Back-dune wetland;
- 3 - Waterway connection and adjustment of the current irrigation network;
- 4 - Coastal dune deposit;

The interventions on those environments will alone bring great ease to the current vegetal and animal species and to the ones which will potentially colonise the area. In any case, specific actions have been foreseen also the re-introduction and medium and long-term maintenance of vegetal and animal autoctonous species, originally present in the area and now disappeared. In particular about vegetal species: *Artemisia caerulescens* subsp. *caerulescens*, *Erianthus ravennae*, *Li monium narbonense*

,
Plantago cornutii

, about animal species:

Emys orbicularis

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In the meantime, interventions have been planned to numerically increase the *Bufo viridis* population and to promote nesting among a series of birds included in the Council Directive

92/43/EEC: *Nycticorax nycticorax*, *Ardeola ralloides*, *Egretta garzetta*, *Himantopus himantopus*, *Alcedo atthis*.

Another phase is represented by the planning and the realisation of the fruition system, compatible with the restored environments, specifically referring to paths and bird watching structures.

In addition, dissemination booklets and publications will be printed and distributed to keep the local community informed about project progress and results, furthermore local events and national-international conferences will be organized.

Particular attention will be paid to environmental education activities, to be addressed both to young people and adults (identification of flora species, introduction to bird watching).

Proper training courses addressed to the Staff of the Sentina Natural Reserve and to Environmental Volunteer Associations operating in the area will be organized in order to maintain and manage the interventions.