

CONSTRUCTED WETLAND FOR TREATMENT OF WASTEWATER FROM AGRICULTURAL COOPERATIVE FIRM FATTORIA DELLA PIANA



ORIGINAL NEED

The agricultural firm Fattoria della Piana is an innovative factory, sensitive to environmental issues in the province of Reggio Calabria. Its main activities are cattle breeding and milk production, as well as an agri-tourism enterprise and a restaurant for guests and didactical activities. Next to the constructed wetland for the treatment of milk production, milking parlour and municipal wastewater, which is large enough to treat around 100 m³/day, an anaerobic digester allows the management of sewage and whey waste and their conversion into energy.



DESCRIPTION

The plant is composed of diversified primary treatments, set on the basis of wastewater typology: equalization of milk production wastewater, a common three-chambered tank where all wastewaters are discharged, after which wastewaters are sent into an horizontal subsurface system with 4 tanks in parallel for a secondary treatment. The effluent is discharged back into Mammella Torrent.



LOCATION

Agricultural and cooperative firm
Fattoria della Piana
City of Candidoni (RC)
Region of Calabria
Italy

COMMITTANT

Cooperative Fattoria della Piana
Agricultural firm

NUMBER OF PERSON EQUIVALENT

1500 (equivalent of organic
charge)

WASTEWATER TYPOLOGY

Agroindustrial and municipal

PLANT TYPOLOGY

HF

AREA (M2)

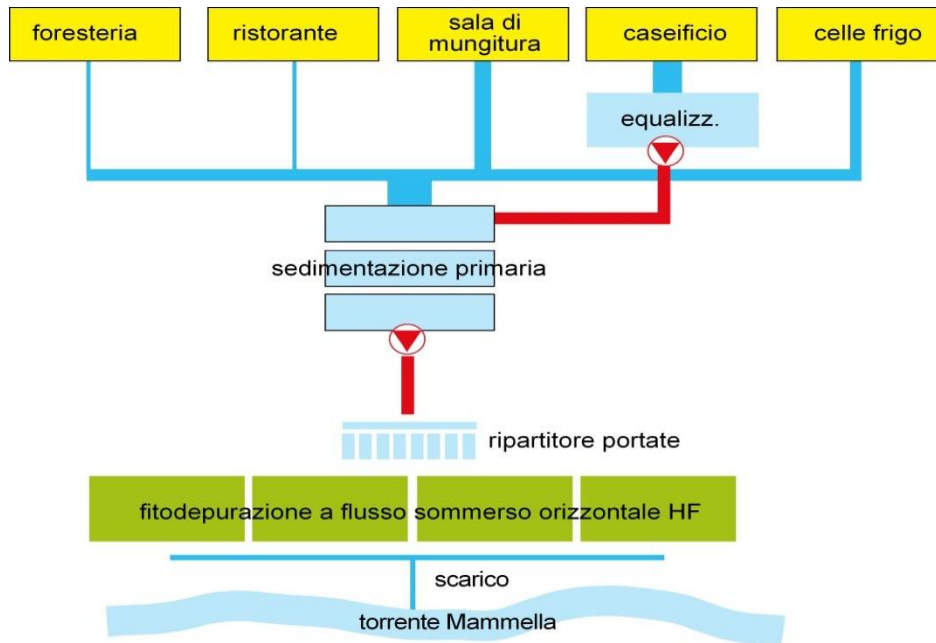
2280

COST

200.000,00 Euro

YEAR OF REALIZATION

2011



RESULTS

During the start-up stage, the plant is carefully monitored; after a first stage during which the achievement of depurative performance is slowed down because of a very low pH at the entrance that inhibited the creation of bacteria, also thanks to the revision of management procedures in the dairy factory and a more efficient collection of whey, the plant achieved a good efficiency score with high organic charge removal at the entrance.

