

# POST TREATMENT SYSTEM OF THE ACTIVATED SLUDGE TREATMENT PLANT EFFLUENT SAN CASCIANO DEI BAGNI



## ORIGINAL NEED

The Municipality of San Casciano dei Bagni needed to upgrade the existing activated sludge treatment plant. This due to the fact that the effluent from the existing plant did not respect the limits imposed by the current law (L. 152/99) and caused problems of eutrophication in the river and the lake receiving the effluent (respectively Elvella River and Elvella Lake).



## DESCRIPTION

The kind of constructed wetland chosen is a horizontal subsurface flow system.

Existing treatment plant is composed of a primary treatment system (grid), a system of nitrification and denitrification, a oxidation basin, a secondary settlement basin and finally a system of clorination of the effluent; sludge cycle ends with drying beds.

### LOCATION

Municipality of San Casciano dei Bagni  
Province of Siena  
Tuscany  
Italy

### COMMITTANT

Municipality of San Casciano dei Bagni

### NUMBER OF PERSON EQUIVALENT

2000

### WASTEWATER TYPOLOGY

Urban

### PLANT TYPOLOGY

SFS-h (7 basins, 2 lines)

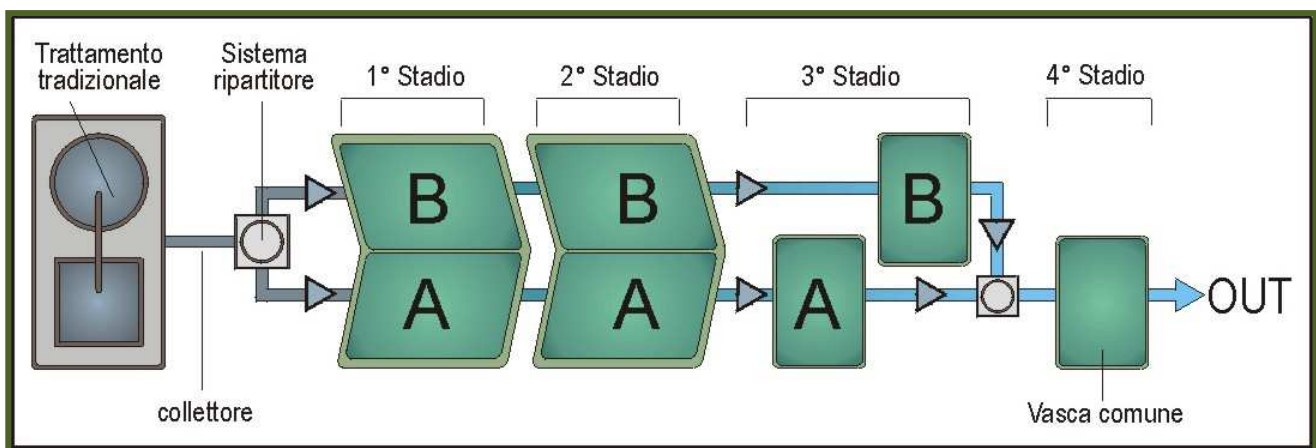
### AREA (M2)

1680

### YEAR OF REALIZATION

2005

The constructed wetland system is composed by 4 stages; first three stages are disposed in two lines in parallel, each line is constituted of 3 different basins; fourth and final stage is one basin, in common between the two lines. Each basin is a horizontal subsurface flow system.



Scheme of the plant

