

# CONSTRUCTED WETLAND SYSTEM FOR TREATMENT OF DOMESTIC WASTEWATERS OF PALAZZONE



## ORIGINAL NEED

Before the installation of the plant, wastewater coming from the locality of Palazzone was collected by some sparse sections of a single net pipe and discharged directly on the ground in various impluviums. There was no total collecting and not even any kind of treatment.

After factibility studies, Municipality of San Casciano dei Bagni has realized a dual net pipe collecting domestic wastewater of Palazzone, and selected natural depuration as treatment system.



## DESCRIPTION

The selected kind of treatment plant for domestic wastewater for Palazzone is a horizontal subsurface flow system. General criteria considered in making this choice are:

- depuration goals according to characteristics of receiving idric element and requests of the actual laws;
- availability and morphology of the site;
- tipology of wastewater and amount of Person Equivalent;
- characteristics of phytodepuration systems: low cost, easiness of realization and management, good reliability of depuration power, optimal environmental impact.

### LOCATION

Settlement of Palazzone  
Municipality of San Casciano dei Bagni  
Province of Siena  
Tuscany  
Italy

### COMMITTANT

Municipality of San Casciano dei Bagni

### NUMBER OF PERSON EQUIVALENT

600

### WASTEWATER TYPOLOGY

Civil

### PLANT TYPOLOGY

SFS-h (7 basins)

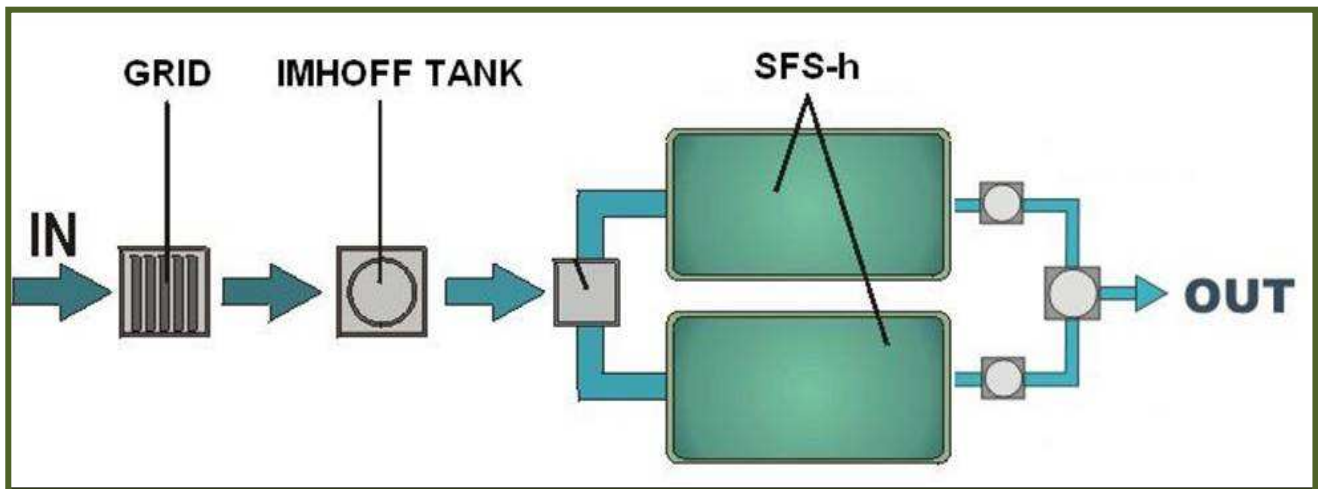
### AREA (M2)

1500

### YEAR OF REALIZATION

2005

The treatment plant is composed of a primary treatment system (grid + Imhoff tank) and a secondary treatment system, a horizontal subsurface flow system composed of 2 lines in parallel, each made up of 1 basin.



Scheme of the plant