

# CONSTRUCTED WETLANDS SYSTEM FOR URBAN WASTEWATER TREATMENT OF VILLA MARCHESE



## ORIGINAL NEED

The project involves the creation of a system of constructed wetlands that treat the urban wastewater of a small village in the municipality Gualdo Cattaneo, called Villa Marchese, corresponding to a fixed user of about 100 p.e. that in the summer because of tourist fluctuations, can reach 150 p.e.



## DESCRIPTION

The sewage delivered in an old not functioning sewage treatment plant, that has been demolished; a new collector carries the wastewater to a few hundred meters downstream in the identified area for the construction of the new system of constructed wetlands. The sewer is of mixed type, therefore, it had to provide a floodway that allowing send to the plant, only the flow of dry time.

### LOCATION

Hamlet of Villa archese  
Municipality of Gualdo Cattaneo  
Province of Perugia  
Umbria  
Italy

### COMMITTANT

Valle Umbra Servizi S.p.a.

### NUMBER OF PERSON EQUIVALENT

150

### WASTEWATER TYPOLOGY

Urban

### PLANT TYPOLOGY

HF

### AREA (M<sup>2</sup>)

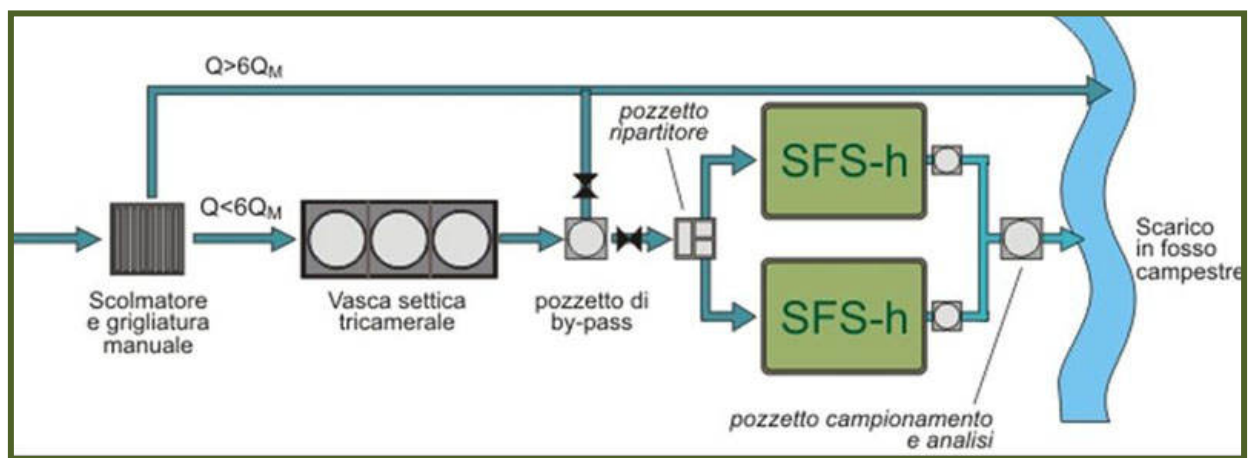
420

### YEAR OF REALIZATION

2003-2004

The project is in line with the “Piano d’Ambito” established pursuant to L. 36/94 and L.R. 43/97 from ATO Umbria 3.

The type of plant choice is subsurface horizontal flow (HF), with two equal basins placed in parallel.



Block scheme of the plant