

CONSTRUCTED WETLAND SYSTEM FOR TREATMENT AND REUSE OF WASTEWATER OF THE VILLAGE OF SARRA



ORIGINAL NEED

In Palestine, exploiting water resource is at the top of the issues, since in many areas the available water is not sufficient to fulfill the local needs, especially when it comes to irrigation. At the same time, there needs to deal with the problem of improving wastewater quality, because most of it is not treated and is discharged directly in the environment.



In addition to increasing the village's hygiene and health condition by realizing a sewage and constructed wetland systems, this project let the treated wastewater to be reused for olive-tree irrigation.

LOCATION

Village of Sarra
Nablus
North West Bank
Palestine

COMMITTANT

GVC, financed by the European Union

NUMBER OF PERSON EQUIVALENT

4300

WASTEWATER TYPOLOGY

Urban

PLANT TYPOLOGY

VF +HF

AREA (M2)

4500

COST

596.000,00 Euro

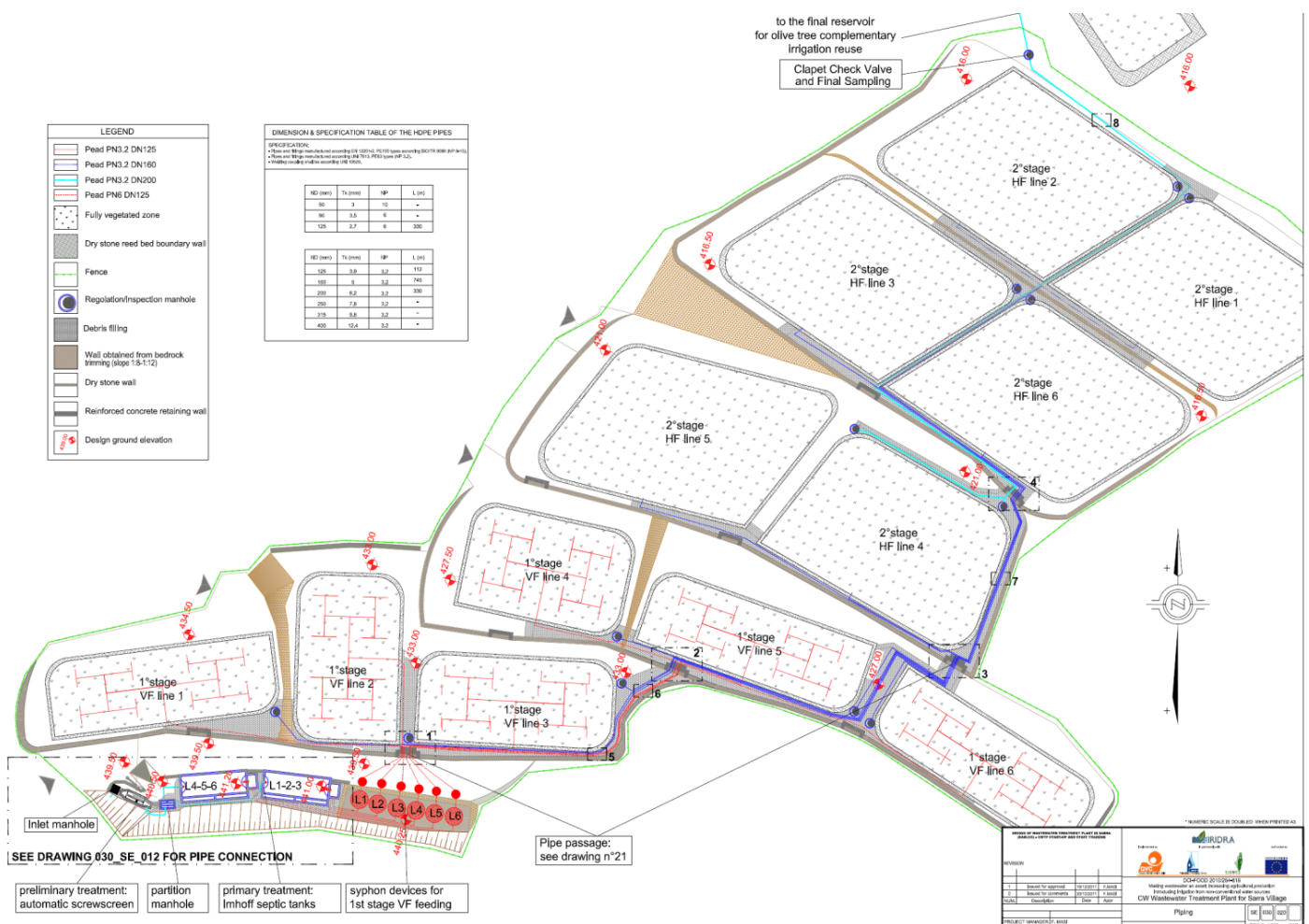
YEAR OF REALIZATION

2012-2013

DESCRIPTION

The plant is composed of:

1. Pre-treatment with mechanical screen (cochlea-type filter)
2. Primary treatment with two tanks Imhoff in parallel;
3. Secondary treatment using a 1st stage with vertical subsurface flow system (6 tanks in parallel, 1500 m²); 2nd stage (6 tanks in parallel, 3000 m²).
4. Sharpeing and accumulation pond for irrigation purpose.
5. Constructed wetland systems for the sludge extracted from the Imhoff tanks.



Each vertical flow system is provided by gravity and takes advantage of the different levels using self-priming syphon.

