

GOOD PRACTICES AND TECHNOLOGIES

Reducing Footprint in Water

El Agua Nos Une – SuizAgua América Latina



Treatment for reuse of domestic water and vermicompost from sludge

SDG: 6.3. Water quality
6.4. Water efficiency



Company / implementer

Universidad Autónoma de Occidente

Sector:

ISIC 8030 Higher education

Location:

Cali – Valle del Cauca- Colombia 3°21'14" N 76°31'22" O

Update: 01 Feb. 2018



Results

- 30% of the treated water is reused for irrigation in the gardens and fields of the university campus, equivalent to **1,559 m³/year**.
- Harvest of **230 Kg/year** of dry sludge generated by the WWTP for the production of 11 tons of organic fertilizer through a vermicomposting system.



Other benefits

- Economic saving in the reuse of treated water for irrigation of University gardens and courts.



Supplier References

Supplier:
Contact information:



Implementing Company

Company in charge of implementing
the solution: Universidad Autónoma de Occidente
Contact information: Carlos Alberto Borrero
E-mail: caborrero@uao.edu.co



Description

The domestic wastewater treatment system (WWTP) is composed of the following units: pumping well No.1, pretreatment (sand trap and grease trap), treatment (aeration tank, sedimentation tank, float tank and sieve) filtration (treated water storage tank and drying bed unit) and finally, a pumping well No.2.

Treated waters are used in the irrigation of gardens and courts within the university campus (30%) and discharged into an irrigation canal to the Lili River (70%).



Investment and operation costs

Investment costs: The investment cost of the system is around **USD 300,000** and the monthly operating cost is approximately **USD 300**.

Operating Costs: Human resources for the maintenance and operation of the Treatment Plant.



Recommendations and Limitations

- Carefully consider population growth projections, since the WWTP should be designed considering this growth.



Cases of Application

N/A



References

Information provided by the University:
<http://uao.edu.co/wp-signup.php?new=www.campusostenible.org>