

Accepted Manuscript

Case Study

Domestic wastewaters reuse reclaimed by an improved horizontal subsurface-flow constructed wetland: a case study in the southeast of Spain

Pedro Andreo-Martínez, Nuria García-Martínez, Joaquín Quesada-Medina, Luis Almela

PII: S0960-8524(17)30252-3
DOI: <http://dx.doi.org/10.1016/j.biortech.2017.02.123>
Reference: BITE 17695

To appear in: *Bioresource Technology*

Received Date: 6 February 2017
Revised Date: 23 February 2017
Accepted Date: 26 February 2017

Please cite this article as: Andreo-Martínez, P., García-Martínez, N., Quesada-Medina, J., Almela, L., Domestic wastewaters reuse reclaimed by an improved horizontal subsurface-flow constructed wetland: a case study in the southeast of Spain, *Bioresource Technology* (2017), doi: <http://dx.doi.org/10.1016/j.biortech.2017.02.123>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Title

Domestic wastewaters reuse reclaimed by an improved horizontal subsurface-flow constructed wetland: a case study in the southeast of Spain.

Authors

Pedro Andreo-Martínez^a, Nuria García-Martínez^a, Joaquín Quesada-Medina^b, Luis Almela^{a*}.

Affiliations

^aDepartment of Agricultural Chemistry, Faculty of Chemistry, University of Murcia. Campus of Espinardo, 30100 Murcia, (Spain).

^bDepartment of Chemical Engineering, Faculty of Chemistry, University of Murcia, Campus of Espinardo, 30100 Murcia, (Spain).

Abstract

The aim of this case study was to assess the performance of a horizontal subsurface flow constructed wetland (HF-CW) located in southeastern Spain, filled with blast furnace slags (BFS), planted with *Phragmites australis* and designed to treat artificially aerated domestic wastewater to produce effluents suitable for agriculture reuse. The water quality parameters, included in the Spanish regulations for reclaimed wastewater reuse as agricultural quality 2.1, were monitored for one year. Data for all studied parameters, except electrical conductivity (EC) and sodium absorption rate (SAR), met the Spanish standards for reclaimed wastewater reuse due to the high evapotranspiration (ET) during the summer. The introduced improvements were effective for turbidity,

Download English Version:

<https://daneshyari.com/en/article/4997494>

Download Persian Version:

<https://daneshyari.com/article/4997494>

[Daneshyari.com](https://daneshyari.com)