



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	Ms_BJAST_31425
Title of the Manuscript:	Treatment wastewater municipal by subsurface flow wetland modified to rural communities in Mexico
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Providing drinking water to many small communities triggered a dramatic increase in wastewater production, bringing out the necessity for collecting and treating wastewater in these communities. The search for innovative alternatives to meet increasing capacities and relatively larger communities is very important. The offer of technologies did span from "high-tech" systems to sustainable and environmentally friendly approaches such as constructed wetland. This kind of treatment is subdivided into subsurface-horizontal flow and subsurface-vertical flow system. Nowadays, constructed wetland systems are more and more based on hybrid units that combine vertical and horizontal flow for better nitrogen pollution control. Is presented in this paper results of municipal wastewater treatment from a constructed subsurface flow wetland with horizontal flow, which is located in Campus Azcapotzalco of 72 University Autonoma Metropolitana in Mexico City, Mexico. In the article the advantages/disadvantages of system could be discussed by the authors based on the results they obtained. Such discussion will be interesting for the purpose of the paper. It would be interesting to compare the results found with those of others reported in the literature.	1- Providing drinking water to many small communities triggered a dramatic increase in wastewater production, bringing out the necessity for collecting and treating wastewater in these communities. The search for innovative alternatives to meet increasing capacities and relatively larger communities is very important. The offer of technologies did span from "high-tech" systems to sustainable and environmentally friendly approaches such as constructed wetland. This kind of treatment is subdivided into subsurface-horizontal flow and subsurface-vertical flow system. Nowadays, constructed wetland systems are more and more based on hybrid units that combine vertical and horizontal flow for better nitrogen pollution control. Is presented in this paper results of municipal wastewater treatment from a constructed subsurface flow wetland with horizontal flow, which is located in Campus Azcapotzalco of University Autonoma Metropolitana in Mexico City, Mexico Answer: We are grateful for his constructive observations, but the objective of this paper is mainly the hydrodynamic modelling of wetland, because channels are usually constructed in



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		rectangular form. The authors have been modified this channels with curved shapes with slopes, as presented in this article, in order to improve the treatment efficiency of the system and avoid short circuits of hydraulic flows which in turn allows avoid dead zones in each channel. It is important to point out that this sub-surface wetland of horizontal flow, is important for a construction commitment acquired in rural communities located in the Upper Lerma River Basin in the state of Mexico, Mexico, where there are agricultural areas that lack water and require of recovery of its municipal waters for agricultural irrigation, since previously they used waters of the river Lerma that at the moment is very contaminated. In addition with the experience of another wetland built in a rural community in the State of Michoacán, Mexico, in which there were problems of short circuits and therefore of dead zones that have caused presence of harmful fauna, reason why it was design in the wetland of this article, forms curves with slopes in each channel suitable to homogenize the water flow and the transport of pollutants. The wetland was redesigned, by comparison with the built in Michoacán state, and see references [14] and [15]. Paper [14], Rivas, H. A. "Determination of kinetic constants for design and optimization of a system combined, wetland-maturation lagoon, under a climatic condition in Mexico". Ph.D. Thesis from University Autonoma Metropolitana, Campus Azcapotzalco, 2013, Paper [15], Rivas, A., Barceló-Quintal I. and G. E. Moeller G.E. Pollutant removal in a multi-
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		stage municipal wastewater treatment system comprised of constructed wetlands and a maturation pond, in a temperate climate. Water Science & Technology. 2011; 64 (4): 980-987). 2- The paper is well organized and can be accepted for the publication. But the manuscript is not ready for publication, as it requires a language revision. Answer The whole document was revised again, hoping that the grammar is already accepted 3- The Figure 4 is not well presented Answer The aim of Figure 4 is to objectively present size of grain that was used in each substrate layer, improved with arrows and in Figure 6, each grain size of the substrate is observed in more detail. Dear reviewer, we are sending you the article already with the revisions so many of yours as of the other evaluators, in yellow we have corrected grammatical errors and to suggestion of another reviewer the title was corrected.
Minor REVISION comments	The paper is well organized. It requires a language revision.	
Optional/General comments	The article explores and generates interest in the utilization of constructed wetland for wastewater treatment. The paper addresses an important environmental issue and the authors' contribution should be acknowledged. The Figure 4 is not well presented	