

Hydraulic, Energetic and Agricultural Profitability of the WWTP of Sidi Ali Lebhar-BEJAIA, Algeria

H. Bouanani^{1*}, A. Kettab¹, M. Nakib¹, W. Boumalek¹, S. Benziaada¹, NM. Chabaca², S. Karef¹, Y. Djillali¹

¹ National Polytechnic School of Algiers (Ecole Nationale Polytechnique d'Alger) and Research Laboratory of Water Sciences (LRS-EAU), Hassen Badi, El Harrache, Algiers

² National Superior Agronomic School of Algiers, Algeria

*Corresponding author: hanane.bouanani.911@gmail.com; Tel: +213 552 05 82 81

ARTICLE INFO

Article History:

Received : 20/12/2016

Accepted : 09/11/2017

Key Words:

Wastewater treatment plant;
diagnosis; reuse; agriculture

ABSTRACT/RESUME

Abstract: Wastewater treatment plants are the main cure to prevent environment from water pollution. Both water that originates from residences, industries and rainfall must be treated according to its composition before returning to nature or being reused in other fields such as agriculture which can really help preserving conventional resources for the next generations and avoiding hydric stress as much as we can. That is why water purification process must be both environmentally and economically beneficial. The main goal of our work part is to characterize the quality of purified water of the WWTP of Sidi Ali Lebhar in BEJAIA (Algerian coast) and then assess its performance and its energetic output. In order to accomplish this, a whole diagnosis based on laboratory analyses and other water and energy data must be elaborated. In the end, the possibility of the agricultural reuse of purified water and sludge is going to be assessed and some enhancements are going to be proposed.
