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Reuse of Treated Waste Water of Tambaram Municipality to Provide Sustainable Water Source for Arignar Anna Zoological Park Vandalur

Joshua Amarnath D[1]*,P.Gunasekaran[2]

[1]Professor, Department of Chemical Engineering, Sathyabama University, India
[2]P.G.Scholar, Department of Chemical Engineering, Sathyabama University, India

Abstract: The rapid growth of population in urban area leads to the requirement of huge quantity of Water for their domestic needs. Hence the needs have to be fulfilled with fresh water and the waste water generated from domestic and industries have to be treated and disposed off properly to avoid pollution and degrading the environment. The normal practice is to dispose the treated waste in the nearby stream and rivers which will contaminate the entire water body. The municipal waste water generated in Tambaram Municipality is proposed to be collected through a network of Under Ground Drainage System (UGD) and treated through a Sewage Treatment Plant (STP) and let out into the Pappan Channel and finally reaches the Bay of Bengal through Adayar River and goes as a waste. Hence in this study, it is suggested to utilize the treated waste water for the irrigation needs via Lawn maintaining, fodder crops, forest development in the Arignar Anna Zoological Park, Vandalur. The treated Waste Water quality from Metro water sample has been collected and studied; also the treatment efficiency of the proposed plant is studied with respect to the existing similar type of plant in Coimbatore Corporation. The suggestions for utilizing the treated waste water for lawn maintenance, development of fodder crops and forest development and aquaculture in the Arignar Anna Zoological Park, Vandalur will provide sustainable water source for the Zoo which is starving for the water demand in summer and drought periods and also reduction in use of potable water supplied by the TamilNadu Water Supply and Drainage Board (TWAD) Board and withdrawal of ground water by pumping.
Key Words: Waste Water, Sewage Treatment Plant, Irrigation.

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