

## **Design of STS for PUDA and Usage of Treated Wastewater for Irrigation**

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### **ABSTRACT**

The primary objective of this study is to design a sewage treatment system for Puttaparthi Urban Development Authority (PUDA) in A.P and usage of treated wastewater for Irrigation. In this modern world of advanced techniques, Sewage Treatment works are considered to be one of the most popular procedures carried out to use the treated wastewater for agricultural purposes or to dispose off on to the land. The study area, being a pilgrim center attracts people all over the world and during some special occasions the place gets over crowded. Hence, sewage treatment units were designed specially keeping in view of the peak population. In the present study, design of various sewage treatment units were carried out. Puttaparthi and its surrounding areas come under Drought Prone Areas of Anantapur District. Hence, the treated wastewater of PUDA can be used effectively for raising some suitable crops in that area. The National water policy of India also emphasizes the need for recycling and reuse of wastewater. Earlier studies on sewage farming reveal that Disposal of Sewage effluent by applying on land increases crop yield by 33% as sewage contains a lot of fertilizing minerals. As Anantapur district is drought prone area, large numbers of people are migrating for works due to lack of Irrigation water for growing of crops. Since the quantity of effluent from PUDA is considerably high, usage of treated sewage for Irrigation is a good alternative.