

Challenges and Opportunity for Sewage Recycling Projects in India Wastewater Treatment 3 R's: Reduce, Recycle and Reuse

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Sauber Environmental Solutions Pvt Ltd. is a technology based EPC (Engineering, Procurement and Construction), project management and Consultancy organization in the field of water and wastewater management and providing services ranging from initial project conceptualization, planning, techno-economic feasibility studies, Design, Engineering, cost estimations, preparation of tender documents, tender evaluation and consultancy to full fledge EPC (Engineering, Procurement, Construction), Erection, Testing and Commissioning, Operation and project management on Turnkey basis.

We offer sustainable and uniquely integrated eco-friendly, low cost treatment solutions for water and municipal wastewater treatment, industrial effluent treatment, Biogas generation and recycle, recycle and reuse of treated wastewater/effluent.

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J gtgøtg"c"hg y"ej cmgp igu"vq"y cuvg y cvgt"vtgev o gpv"kp"Kpfk

Y cuvg y cvgt" igpgtev kqp" cpf" vtgev o gpv< According to estimation, about 38,254 million litres of wastewater per day (mld) is generated in the urban centres which comprises of Class I cities and Class II towns having the population of more than 50,000 (which accounts for more than 70% of the total urban population). The municipal wastewater treatment capacity developed so far is about 11,787 mld, that is about 31 per cent of wastewater generation in these two classes of urban centres. Majority of wastewater treatment plants are out of order due to lack of maintenance. The untreated wastewater also pollutes the existing water sources, only to add to the problem even more. Considering the population of India, ignoring the wastewater treatment issue isn't an option anymore.

Kpfwvtken" cpf" rqrwnev kqp" itqyvj< Growing population has increased the need for power generation, for example, which placed greater demands on water reuse.

Htguj" y cvgt" equv< The cost of clean, fresh water is continually increasing, and is impacting all Businesses, Societies, Communities

Tgiwnevqt{" tgswktg o gpv< Industrial sites have nowadays very stringent wastewater discharge permits that include flow and quality

PMC to EPC Contractor, M/s SMC Infra Pvt Ltd, Mumbai, for 22.75 mild sewage recycling plant for m/s. rashtriya chemicals and fertilizers limited (RCF),

Trombay, rom[†]Figure 1: Industrial manufacturing ne[†]Journal of Bioremediation and Biodegradation

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1. 45.5 MLD Sewage Pumping Station (SPS) in the premises of Municipal Corporation of Greater Mumbai (MCGM).

2. 22.75 MLD capacity Fully Automated Sewage Recycling Plant based on Membrane Bio-Reactor (MBR) Technology followed by Reverse Osmosis (RO) to generate 15 MLD of treated water at RCF Plant, Trombay.

3. 15 MLD Treated water pumping station with treated water pumps for treated water supply to M/s. RCF and M/s BPCL.

4. 800 mm diameter-4.5 Km DI K9 Raw sewage pumping main, 500 mm diameter- 1.5 km clear water pumping main for RCF and 300 mm diameter- 4 km treated water pumping main for BPCL.

It's a big step towards the Water Recycle and Reuse for industrial grade application purposes. The plant has been designed using state of

the art technologies i.e 'Membrane Bio Reactor (MBR) followed by Reverse Osmosis Plant to produce ultrapure water for industrial application purpose. Entire Project was implemented from Design to in 28Jin 2ne inignMto