



Centre for Science and Environment

Anoxic Bioremediation in Kushak Drain, New Delhi



Location: New Delhi
Scale: Water body/lake
Implementing organisation: JM Enviro
technologies Pvt. Ltd , New Delhi
Municipal Corporation (NDMC)

Designed Capacity: 3 MLD
Length of the drain: 2.8 km in length
Operational period: 2009-2010
Capital cost: Rs. 60,000
O & M cost: Rs. 1.9 lakhs / MLD / year

Project background

Bioremediation on Kushak Drain has been carried out on 2.8 km stretch from S.P. Marg to Satya Sadan. New Delhi Municipal Corporation (NDMC) took an initiative to treat open drain by Anaerobic Bioremediation technology. The project was contracted to JM Enviro Technologies Pvt. Ltd. Company with an objective to treat the wastewater biologically by using the bacterial product Persnickety® 713 in order to achieve CPCB standards for ground water recharge; to provide odourless atmosphere to the inhabitants surrounding the drains and to remove all the floating materials in the drain.

Treatment technology

In the beginning, whole of the drain was inoculated with Persnickety® 713. One dosing station was established at the starting point of the drain and bacteria medium was dosed at high concentrations initially. Half of the dosing solution was introduced at the dosing station and remaining half was used to inoculate the bacterial product throughout the drain. Once the bacterial strain entered the regeneration phase dosing quantity was reduced and maintained till the end of the project.

Performance

Increase in DO: 72% approximately
BOD reduction: 77% approximately
TSS reduction: 80% approximately
(Source : JM Enviro technologies Ltd. New Delhi)

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