

Gwalior

A City of Forts



Comprehensive Sewage Management Gwalior Municipal Corporation & Aqua - a symbiotic relationship

"Gwalior has the Credibility of being One of only two Metropolitan Cities in India who Treat & Reuse 100% of their Sewage"

.....source : "Compendium of Recycle & Reuse of Waste Water" CPHEEO, MoHUA; Gol



The historic city was ruled by Kachchhapaghatas in the 10th century, Tomars in the 13th century, the Mughals upto 18th century & the Scindia Marathas as the Local Princely Rulers in British India.

It was also the Winter Capital of the State of Madhya Bharat (which later became a part of the larger state of Madhya Pradesh).

Before the end of the 20th century it became a million plus agglomeration and now it is a metropolitan city surrounded by many Industrial & Commercial zones (Malanpur - Bhind, Banmore - Morena).



Situation :

Established in 6th June 1887, today **Gwalior Municipal Corporation (GMC)** covers an area of **289sq.km**, has a current metro area population is **14,42,000 souls** & generates approx **169MLD** of Sewage.



But as is the case with many fast growing old cities, its Sewerage system was not upto the task. Due to frequent problems in sewage sector, the Public was facing nuisance & thus the Lawmakers seriously raised the issue with Bhopal UADD (*exclusive design department of Urban Administration Development Department*).



Solution :

Authorities along with Aqua being the prominent Indian Submersible Sewage pump manufacturer, did a **Root Cause Analysis** of the poor performance of pumps in the Existing SPS & STP which revealed that the **1st Generation** Sub Sewage pumpsets (*based on European designs & ideal European conditions*) were not designed robustly enough to tackle the difficult Indian Operating Conditions & therefore were failing frequently ultimately causing poor system performance of existing SPS & STP.

Step by step, the Local Authorities Replaced the earlier 1st Generation Sub Sewage pumpsets with those of Aqua make (*which being 2nd Generation Sub Sewage pumpsets exclusively designed for Harsh Indian Operating Conditions were bound to succeed*) & also added more SPSs & STPs.

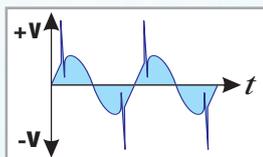
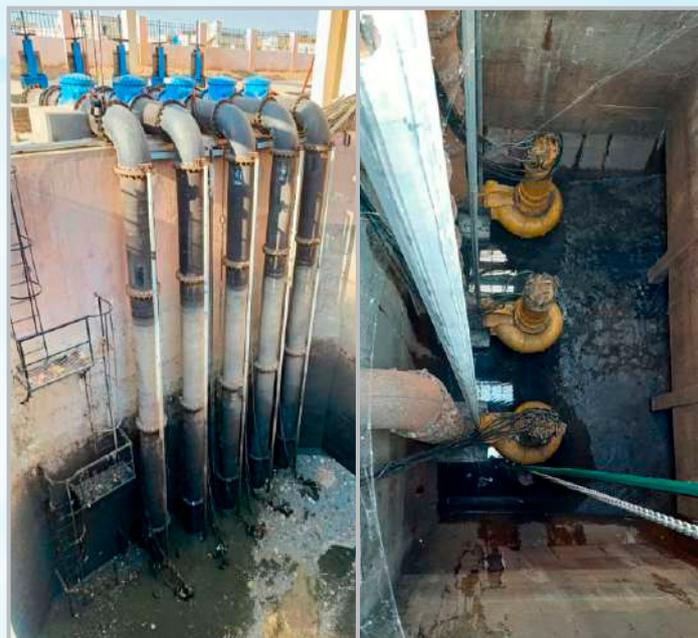
..... *Tolerates*



So far GMC has established 5 STPs with a total treatment capacity of 223MLD. 169MLD of wastewater is treated through secondary treatment technologies by adopting Activated Sludge Process (*ASP*) technology and Sequential Batch Reactor (*SBR*). The **treated wastewater** is released into the canal & as per the agreement with Irrigation department, it is utilised for various **Irrigation & Agricultural purposes**.

Some of Aqua's Submersible Sewage Pumps in Gwalior...

Location of STP	Jalalpur STP
Capacity	145 MLD
Year of commissioning	2020
Total Capital cost	Rs. 173.326 Cr
Technology adopted	Sequential Batch Reactor (SBR)
Agency responsible for O & M	M/s Envirad Project Pvt. Ltd. Kanpur (U.P)
Energy cost	Rs. 69.7 Cr For 10 Years
Quantity	8 nos
HP	375hp
Head	20m
Discharge	3500m ³ /hr



Tolerates Power Spikes & Surges



Project	65MLD STP at Laltipara, Morar		
Aqua's Client	Jayanti Super Construction Pvt. Ltd.		
PDMC	M/s EGIS India Pvt. Ltd.		
Pump Model : ANS_V_AC_1st_VoG_3042.TY_M..150N_415_OJ.			
Head	Discharge	Quantity	HP
18m	1480m ³ /hr	10nos	150hp



Project	8 MLD SPS at Shatabdipuram, DD nagar, Gwalior		
Aqua's Client	Jayanti Super Construction Pvt. Ltd.		
PDMC	M/s EGIS India Pvt. Ltd.		
Pump Model : ANS..V_AC_1st_VoG.1027.D_ M...17N_415_NJ			
Head	Discharge	Quantity	HP
15m	170m ³ /hr	2nos	17hp
Pump Model : ANS..V_AC_1st_VoG.1527.D_ M...30N_415_NJ			
Head	Discharge	Quantity	HP
15m	340m ³ /hr	2nos	30hp
Pump Model : ANS..V_AC_1st_VoG.2033.D_ M...60N_415_NJ			
Head	Discharge	Quantity	HP
15m	750m ³ /hr	1nos	60hp

कार्यालय
आयुक्त, नगर पालिक निगम, ग्वालियर
बोट क्लब

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ग्वालियर दिनांक 20/06/2022

Performance Certificate

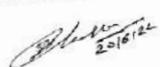
TO WHOMSOEVER IT MAY CONCERN

This is to certified that M/S AQUA MACHINERIES PVT. LTD. AHMEDABAD supplied Non Clog Sewage Submersible pump sets at 145 MLD sewage pumping station at Gwalior Municipal Corporation under AMRUT Project. We are pleased to state that these pump sets are running satisfactorily.

The details of pump sets are as under:

Project : 145 MLD Sewage Pumping Station under AMRUT Gwalior
End Client : Gwalior Municipal Corporation, Gwalior.
Consultant : Egis India Pvt. Ltd.
Contractor : Envirad Project Pvt. Ltd. Kanpur
Pump Model : ANS_V_AC_1st_VoG_5063.TQ_L...375N...415_NJ
Discharge : 3500m³/hr
Head : 20mtr
HP : 375HP
Quantity : 08 nos
RPM : 1000rpm

These AQUA pumpsets are running smoothly and we are satisfied with performance of pumpsets.


Project Officer
Gwalior Municipal Corporation

"We did Root Cause Analysis, series of Technical Presentations with all concerned Stake Holders (Government, Consultants & EPC Contractors) & educated them about the need for 2nd Generation Aqua's ANS pumps (to tackle the harsh operating conditions).

We are happy that we have been able to live up to the faith reposed onto us by all the stake holders."

...reposed onto us by all the stakeholders in form of 100% share of Sub Sewage pumps working in GMC being of Aqua make"

...S R Tidke, R G Sharma & R R Sharma
Team Aqua

Thanks to 100% Sewage being treated regularly (without breakdowns); today Gwalior is a very clean city



Designed for upto
55°C Ambient
temperature

Aqua's ANS

The 2nd Generation of Submersible Sewage Pumpset specifically designed for harsh Indian operating conditions.



Aqua Machineries Private Limited

www.aquapumps.com

Registered Office & Manufacturing Plant

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