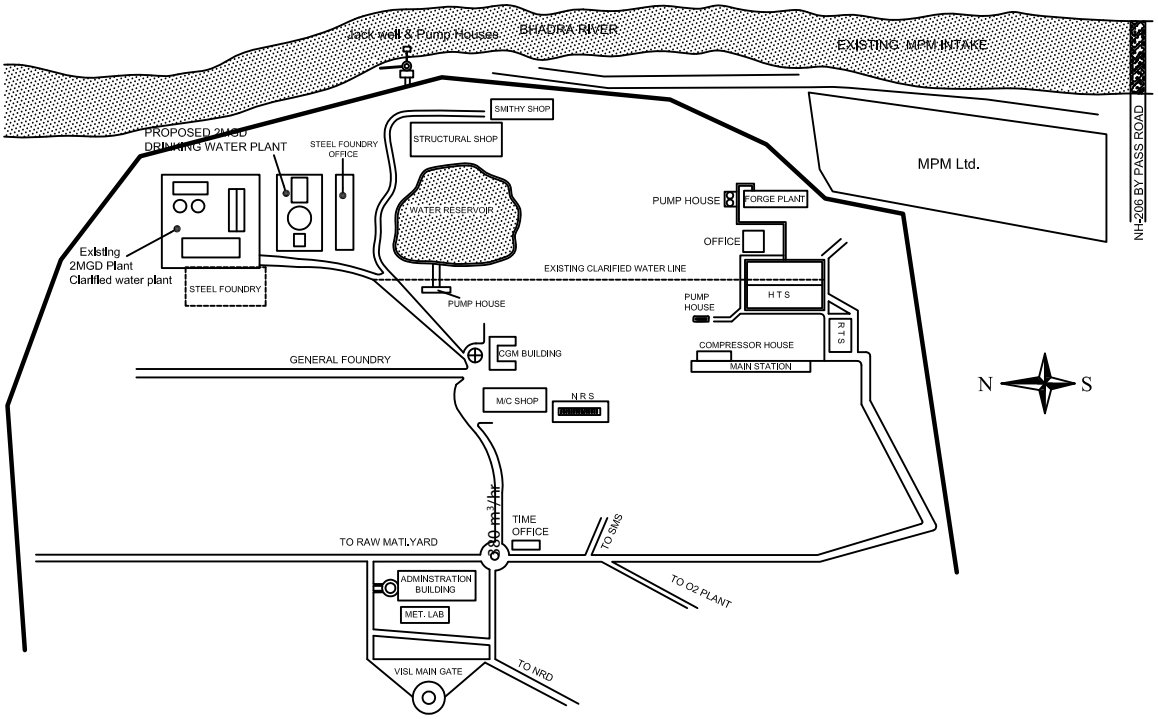
सेल SAIL
STEEL AUTHORITY OF INDIA LTD.



PROJECT ID :

Company	: SAIL - STEEL AUTHORITY OF INDIA
Location	: India
Year	: 2023
Description	: Drinking Water Plant
Goal	: 1-NTU-Turbidity | 1-PPM-TSS | Recovery min 98% flow
Capacity	: 380 m^3/hr or 9 MLD
Water Source	: Surface Water

CHALLENGES :

1. High Turbidity and TSS in incoming water with frequent variations.
2. Space constraint at existing site.
3. RGF - Rapid gravity filters not feasible.
4. Customer needed 100% Autoamation avoid and Manual operation for any operational errors.
5. Limited size of backwash water system.

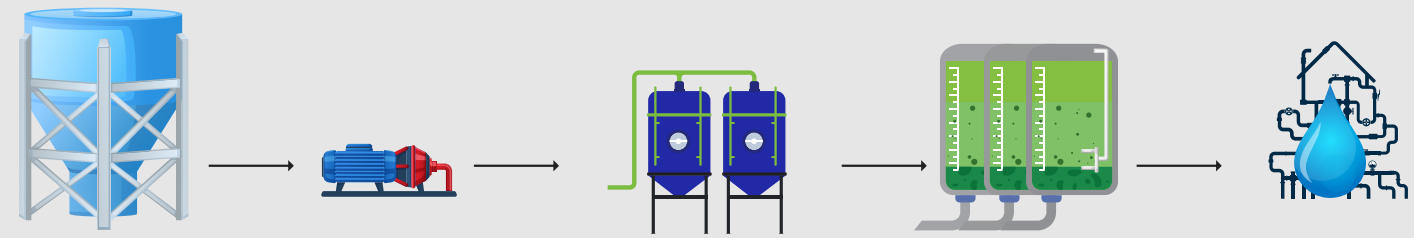
INSTALLED SYSTEM :

1. Pre-fabricated MSEP structual plant in minimum space and civil work
2. No Air Scouring
3. Scada system with 4 x 20 output with HMI and PLC panels for 100% Automation.
4. Automated backwash arrangment.
5. Filtration scheme: Clarified water pumped to AFM vessel through disc filters, Filtered water pumped out for drinking purpose tank
6. AFM Filteration plant area - 200m^2

System Integration and Project Execution done by Yaha Water System

Parameters	Guranted I/L	Achieved
pH	7 to 8	7.42
TSS	<22 ppm	0.85 ppm
Turbidity	30 NTU	0.98 NTU
Water flow rate	380 m^3/hr	383 m^3/hr

PROCESS FLOW DIAGRAM



Clarifier Unit → Filter Feed Pump → Disc Filter → AFM Filter Vessel → Filtered Water Pump House

KEY FEATURES :

- Guaranteed outlet parameter with Turbidity upto 1 NTU and TSS- 1 ppm
- Project Lead Time- 6 months (instead of 2 years)
- AFM media warranty- More than 10 years
- AFM media need not required replacement or regeneration
- 50% lesser space.
- Plant can be retrofitted in case of shifting or expansion eliminating complete obsolation.
- Required negligible civil structure.

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