



**Amity University Kolkata,**

**REPORT**

**THE VOLUME (IN m<sup>3</sup>) OF TREATED WATER (mains water or  
desalinated water) OR EXTRACTED WATER (borewells) USED  
IN THE UNIVERSITY IN THE YEAR 2022**

Amity University, Kolkata (AUK) sets a commendable example in sustainable water management by effectively utilizing Sewage Treatment Plants (STPs) and a rainwater harvesting system. AUK boasts two STP plants with a combined daily capacity of 200,000 liters. These plants employ advanced treatment processes to convert wastewater generated from various campus activities, including domestic sewage, laboratory waste, and cafeteria effluents, into treated effluent. This treated water, exceeding stringent environmental standards, is then reused for various purposes. The treated effluent is utilized for watering the university's vast green spaces, eliminating the need for freshwater extraction for landscaping. This not only reduces dependence on regular water supplies but also conserves precious freshwater resources. After further treatment, a portion of the treated effluent is used for flushing toilets in designated areas within the campus, further minimizing freshwater consumption.

Going beyond wastewater treatment, AUK has also implemented a comprehensive rainwater harvesting system consisting of seven strategically placed pits. These pits collect rainwater from rooftops and paved surfaces across the campus, storing it for later use. The harvested rainwater undergoes filtration and disinfection processes to ensure its quality before being utilized. Similar to treated effluent, harvested rainwater supplements or replaces freshwater used for watering gardens, lawns, and other landscaping features. For non-potable cleaning needs, such as washing vehicles or maintaining outdoor areas, harvested rainwater provides a sustainable alternative to freshwater. A portion of the harvested rainwater is used to recharge the local groundwater table, replenishing this vital resource and contributing to its long-term sustainability.

Total number of user currently are as below:

1. Day scholars including students, faculty, staff, vendors and visitors: 7125
2. Hostellers, Night Staff, vendors, visitors etc.: 650

Waste water generated as per the user type:

1. Day scholars etc.: 7125X20lts/hd/day	=	142500
2. Hostellers, etc.: 650x100lts/hd/day	=	65000
<b>Total domestic waste</b>	<b>=</b>	<b>207500</b>

Apart from the domestic waste other type of waste generated:

Laundry	-	12000ltr/day
Kitchen	-	40000ltr/day
lab	-	1250ltr/day
RO Plants	-	35000ltr/day
Others	-	7000ltr/day
Total	-	95250ltr/day

**Total wastewater generated by the AUK:  $207500+925250= 302750$ lts/day**

**90% received back after the sewage treatment = 272475lts/day**

Treated sewage water used for the following purposes:

Toilet flushing	-	60000ltr/day
Chiller plants	-	340000ltr/day
Gardening	-	225000ltr/day
Washing	-	135000ltr/day
Others	-	40000ltr/day
Total	-	<b>800000ltr/day</b>



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### Certificate of Analysis

Quality Standard	Parameters as desired
Issued to	- Green Wastetech, Sushant Lok-1, Gurgaon
Kind attn.	- Mr.
Analysis no.	- 23041203
Nature of Sample	- Waste Water Sample marked West Bengal-STP Treated
Sample received on	- 12 <sup>th</sup> April 2023
Report Date	- 18 <sup>th</sup> April 2023
Analysis Dates	- 12 <sup>th</sup> April 2023 to 18 <sup>th</sup> April 2023
Sample Receipt	- By Client
Sample Packing	- Pet Bottle
Sampling Method	- Grab Sampling

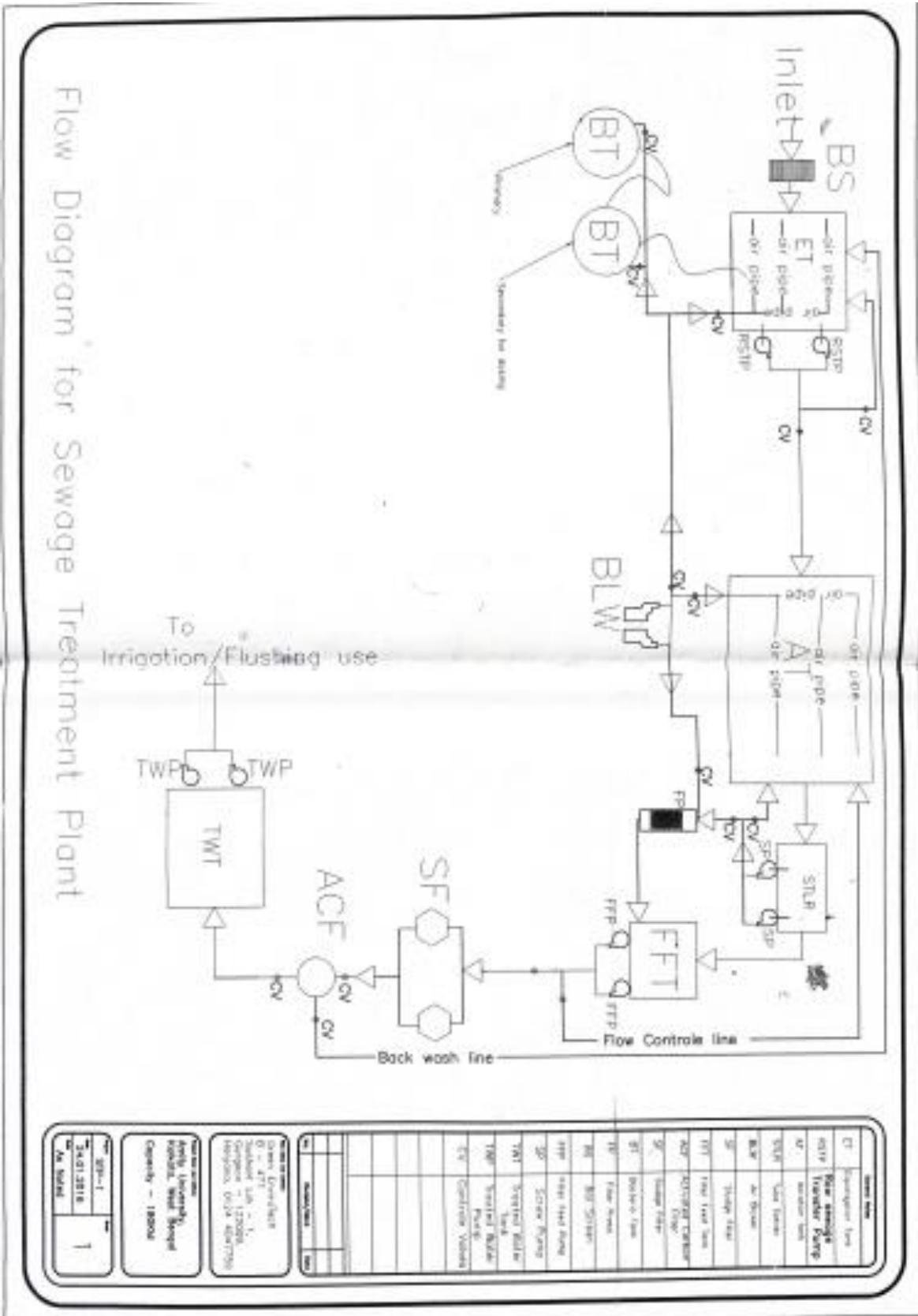
	PARAMETER	UNITS	RESULTS	TEST METHOD	LIMIT		
					INLAND SURFACE	PUBLIC SEWER	LAND FOR IRRIGATION
Organics	Chemical Oxygen Demand	mg/l	12.1	IS 3025 PART 58	250	-	-
	BOD for 03 days at 27°C	mg/l	4.5	IS 3025 PART 44	30	350	100
Physical	pH	Unit Less	7.38	IS 3025 PART 11	5.5-9.0	5.5-9.0	5.5-9.0
	Total Suspended Solids	mg/l	21	IS 3025 PART 17	100	600	200
	Total Dissolved Solids	mg/l	748	IS 3025 PART 16	2100	2100	2100
Chemical	Oil & Grease	mg/l	0.10	IS 3025 PART 39	10	20	10

Remarks: The no. of parameters tested is 06 only. The report is issued subject to the terms & conditions as mentioned over leaf.

Chemist

Authorized Signatory

### Flow Diagram of STP



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