



KALASALINGAM

ACADEMY OF RESEARCH AND EDUCATION

(DEEMED TO BE UNIVERSITY)



Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade

Anand Nagar, Krishnankoil, Srivilliputtur (Via), Virudhunagar (Dt) - 626126, Tamil Nadu | info@kalasalingam.ac.in | www.kalasalingam.ac.in

6 CLEAN WATER AND SANITATION



Ensure availability and sustainable management of water and sanitation for all

THE - Impact Rankings 2025

6.3.2 Preventing water system Pollution

KARE has its own Water Conservation Policy. It is hosted in our institution policy

<https://kalasalingam.ac.in/wp-content/uploads/2021/11/Water-Conservation-Policy.pdf>

KARE campus maintains separate canals for sewage water, rainwater and drinking water so there is no possibility of mixing polluted water with drinking water in our campus.



Separate canals for the rainwater collection

Reverse Osmosis (RO) Plant

Hard Water is treated by RO plant. Treated water is supplied from the RO plant to the different drinking water tanks available at various locations at the campus. The plant has a capacity of 3000 litres per hour. The water sample is tested once a month by the Department of Chemistry.



Mineral Water Plant inside KARE Campus



Water Purification System



Dual Pipeline system used for treated water



Pure Drinking Water – Provided inside the campus

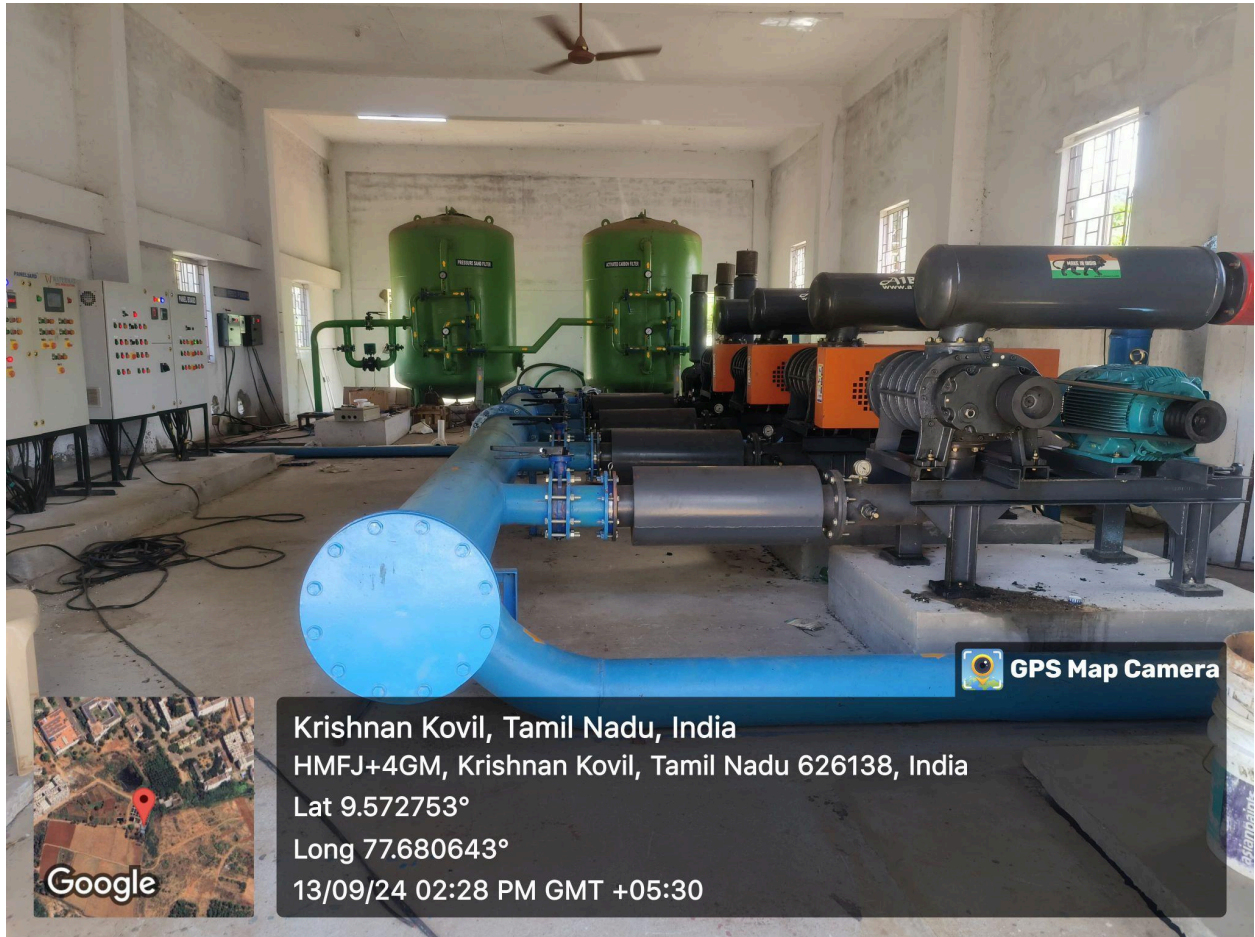
The sewage water is taken to the sewage treatment for recycling and treated water is utilized using the dual pipeline system for irrigating the garden and flushing of toilets. A new hi-tech Sewage Treatment Plant with a treatment capacity of 8 lakh liters per day has been installed in the campus to treat and recycle the wastewater generated from the hostels, academic blocks and staff quarters in the campus. Tertiary treatment of sewage water is carried out using rapid sand filters, activated charcoal, UV and Chlorine disinfection. The plant uses the advanced Sequential Batch Reactor technology against conventional Activated Sludge Process for efficient treatment confirming to the norms of regulatory bodies. KARE has a sewage Treatment Plant with a capacity of treating at least 500 kilo liters of wastewater each day, and an advanced UV disinfection technology. Using a dual pipeline system, the treated water is used for flushing urinals and in sprinklers to flourish the green cover of the campus and irrigate vegetation like coconut groves.



Sewage Treatment Plant 1 – (300 Kiloliter per day)



Sewage Treatment Plant 2 – (500 Kiloliter per day)



Tertiary treatment of sewage water using rapid sand filter, activated charcoal, UV and Chlorine disinfection

Water Analysis

KARE has analyzed the water quality parameters and it is compared with BIS standards. The following table shows the quality of drinking water and it proves that it is pure, safe and clean.

Drinking water quality in KARE Campus:

No.	Parameters	KARE Value	BIS Standards
1	pH	7.6	6.5-8.5
2	Turbidity	NIL	1 NTU
3	Conductivity (μ mhos)	90.4	<250
4	Hardness (ppm)	40.71	200
5	Total Dissolved Solids (ppm)	58.5	500
6	Chloride (ppm)	32.07	<250
7	Salinity (ppm)	74.3	<500
8	Nitrates (ppm)	-	45
9	Sulphates (ppm)	6.85	200
10	Phospate (ppm)	0.01	1.5
11	Fecal Coliform counts/ml	-	-

From this water analysis, it is inferred that the drinking water is pure and potable without any pollutants.

The university provides safe and purified drinking water to the teaching and non-teaching faculty, students and visitors.



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SCHOOL OF ADVANCED SCIENCES / DEPARTMENT OF CHEMISTRY
CHEMISTRY LABORATORY

09.07.2024

Water Analysis Report

Name of the sample : KARE Sewage Plant

Date of the sample taken : 09.07.2024

Analyzed Date : 09.07.2024

Sl. No	Parameters	Observed Values		Agriculture Irrigation Standard
		Inlet	Outlet 500 KLD	
1.	pH	10.5	8.1 ✓	6.5 - 8.5
2.	TDS	1250 ppm	867 ppm ✓	< 1000 ppm
3.	Turbidity	10 NTU	3 NTU ✓	< 5 NTU

S. N. Nagesan
HoD / Chemistry
5/7/2024



Dr. S. N. Nagesan
Dean / SAS



TAMILNADU POLLUTION CONTROL BOARD
Advanced Environmental Laboratory, Madurai
(E-Mail: aelmdu@tncpcb.gov.in, Phone No: 0452 2489497)

ROA No. 226/AEL-MDU/2022-23, Dated: 01.03.2023

1.	Name and address of the sender	The District Environmental Engineer Tamil Nadu Pollution Control Board Virudhunagar.
2.	Dated and Time of collection	01.02.2023, 3.50 pm, 04.00 pm
3.	Date and Time of receipt at Lab.	02.02.2023, 03.15 pm
4.	Condition of Seal, Fastening	Unsealed, Unfastened
5.	Nature and Number of Samples	2 Numbers of Sewage
6.	Date of Analysis	02.02.2023

DEE Code No.	Lab code No.	Point of Collection	Whether Untreated/Treated
02-01	1653	STP Inlet	Untreated
02-02	1654	STP Outlet	Treated

Test Report

Sl. No	PARAMETER	TEST METHOD	Unit	Test Samples Code Nos.	
				Lab: 1653	Lab: 1654
				DEE: 02-01	DEE: 02-02
1.	pH @ 25° C	APHA 23 rd Edn 2017, Part No. 4500 H ⁺	-	6.40	7.16
2.	Total Suspended Solids	APHA 23 rd Edn 2017, Part No. 2540 D	mg/L	58	10
3.	Total Dissolved Solids	APHA 23 rd Edn 2017, Part No. 2540 C	mg/L	1132	968
4.	BOD for 3 days @ 27° C	IS 3025 (Part 44) 1993	mg/L	242	4
5.	C O D	IS 3025 (Part 58) 2006	mg/L	1008	32
6.	Total Solids	APHA 23 rd Edn 2017, Part No. 4500- Norg B NH ₃ B,C, NO ₂ , NO ₃	mg/L	1190	978
7.	Ammoniacal Nitrogen	APHA 23 rd Edn 2017, Part No. 4500- NH ₃ B,C	mg/L	20.16	1.12
8.	Total Kjeldahl Nitrogen	APHA 23 rd Edn 2017, Part No. 4500- Norg B	mg/L	44.8	3.92
9.	Total Coliform	APHA 23 rd Edn 2017, Part No. 9221-B	MPN/100ml	33 x 10 ³	32
10.	Fecal Coliform	APHA 23 rd Edn 2017, Part No. 9221-E	MPN/100ml	14 x 10 ³	17

Note:

1. Results relate only to the items tested samples.
2. The reports shall not be reproduced except in fully approval of the laboratory can provide assurance that parts of a reports are not take out of context.

Checked by

S. M. A. H.
DCSO

Authorized Signatory

N. V. Srinivasan
31/3/23
Chief Scientific Officer,
AEL, TNPCB, Madurai