

A decorative graphic on the left side of the page, consisting of a dark grey background with a light blue circuit board pattern. The pattern includes vertical lines, horizontal lines, and small circles at various points, resembling a printed circuit board (PCB) layout.

MESSIANIC CLOTHING
PVT. LTD.

**B-18, HOSIERY COMPLEX,
PHASE-II EXTENSION,
NOIDA, GAUTAM
BUDDHA NAGAR, UTTAR
PRADESH**

WATER FOOTPRINT

REPORT

YEAR 2025



ABOUT THE REPORT

Introduction

Objective of the Report

Water Footprint
Methodology

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Conclusion &
Recommendations



INTRODUCTION

This report assesses the water footprint of Messianic Clothing Pvt. Ltd., a garment manufacturing facility, in accordance with ISO 14046, Water Footprint Network (WFN) & WRI methodology.

The water footprint is categorized into:

- Blue Water Footprint (BWF): Consumption of surface and groundwater resources.
- Grey Water Footprint (GWF): Volume of water required to dilute pollutants to meet water quality standards.
- Green Water Footprint: Rainwater stored in soil and used by vegetation (mainly relevant to agriculture).

The assessment is based on the annual water consumption, reuse, and wastewater discharge data provided by the facility.



OBJECTIVE OF THE REPORT

Purpose and Objectives

- Evaluate the overall water footprint of facility operations.
- Identify opportunities to improve water efficiency and enhance water reuse.
- Support sustainable water management practices.
- Align with recognized frameworks including ISO 14046, ISO 46001, GRI 303, and CDP Water.

Scope and Boundaries

The assessment covers all operational activities within the Messianic Clothing Pvt. Ltd. facility, including:

- Production and finishing operations
- Utility systems (boilers, RO systems) Domestic water use (drinking, sanitation, and facility cleaning)
- Administrative and support areas

Exclusions

- The following are excluded from the assessment boundary:
- Rainwater and stormwater drainage, unless captured and used as a resource.
- Water consumption from third-party suppliers or outsourced activities.



ABOUT
THE ORGANIZATION

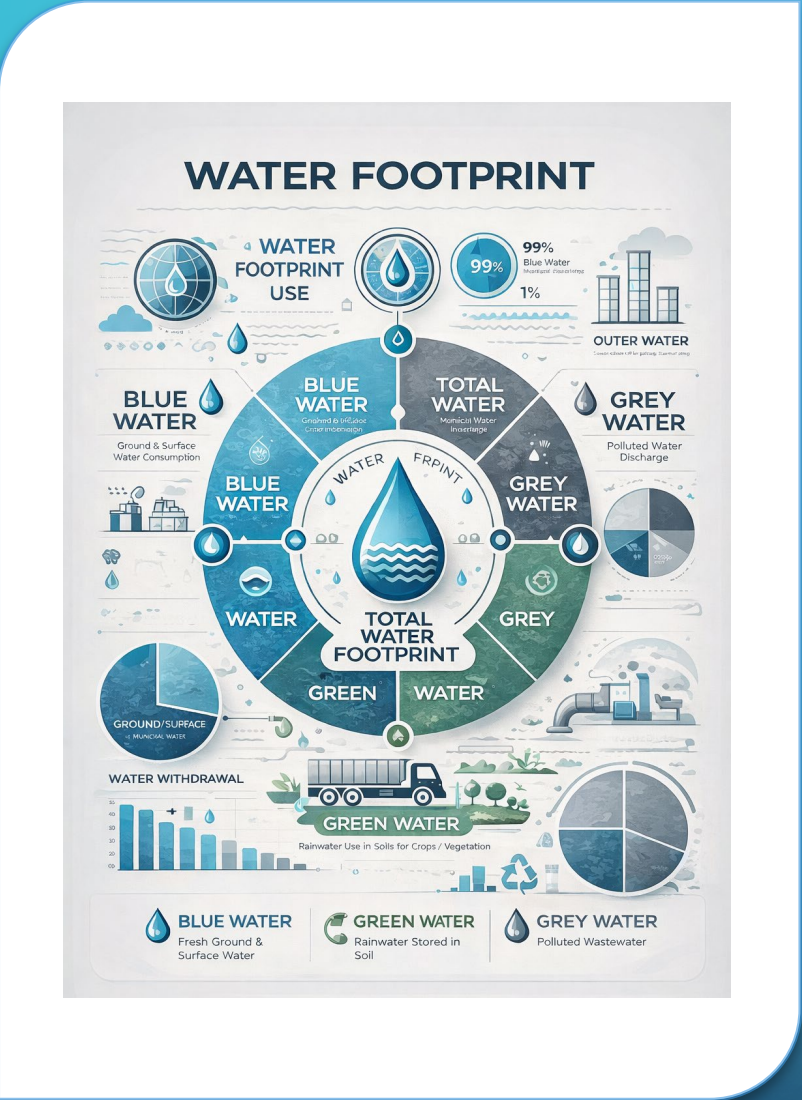


Established in 2001, Messianic Clothing Pvt Ltd is a leading production house specializing in the design and manufacturing of high-fashion garments for ladies. Based in Noida, the company has built a strong reputation for its high-quality apparel and has been exporting to prominent markets in Europe and the USA for over two decades.

With a commitment to excellence, Messianic Clothing combines advanced production techniques with an understanding of global fashion trends, offering a wide range of garments that meet the highest standards of quality and style. The company's global presence underscores its dedication to both the fashion industry and international business partnerships.



ABOUT THE REPORT



This Water Footprint Report for Messianic Clothing Pvt. Ltd., provides a detailed assessment of the organization’s water consumption, usage patterns, and discharge processes. It follows globally recognized methodologies, including ISO 14046 and the Water Footprint Network (WFN), to categorize water usage into blue, green, and grey water footprints. WRI Aqueduct tool is used to understand the water stress of the area.

The report aims to identify opportunities for water conservation, efficiency improvements, and regulatory compliance. It includes a comprehensive water balance analysis, evaluates the impact of water withdrawals on local resources, and suggests sustainable water management strategies.

By understanding and optimizing water usage, the unit can work towards reducing its environmental footprint, enhancing operational sustainability, and aligning with global sustainability goals.

INTENDED USE & USERS OF THE REPORT

This report is a voluntary communication to various stakeholders of Messianic Clothing Pvt. Ltd., including customers, management, investors, regulatory bodies, and the public. It aims to provide transparency on the company's water footprint and water balance, ensuring responsible water usage and sustainability. The report serves as a tool to monitor water consumption, recycling, and discharge, helping stakeholders track performance over time and establish a foundation for future water conservation and efficiency initiatives.

Management Details:

Mr. Prakul Luthra | Director

Verifier: Mr. Rajiv Chaturvedi

Verifier Certificate: ISO 14064-1, ISO 14064-2 & Water Auditor

Certificate No.: 117874925 / 165946641 / CERT _3669744_ 4

Issued by: SGS India Pvt. Ltd. & Indian Plumbing Association

Accounting & Reporting by:

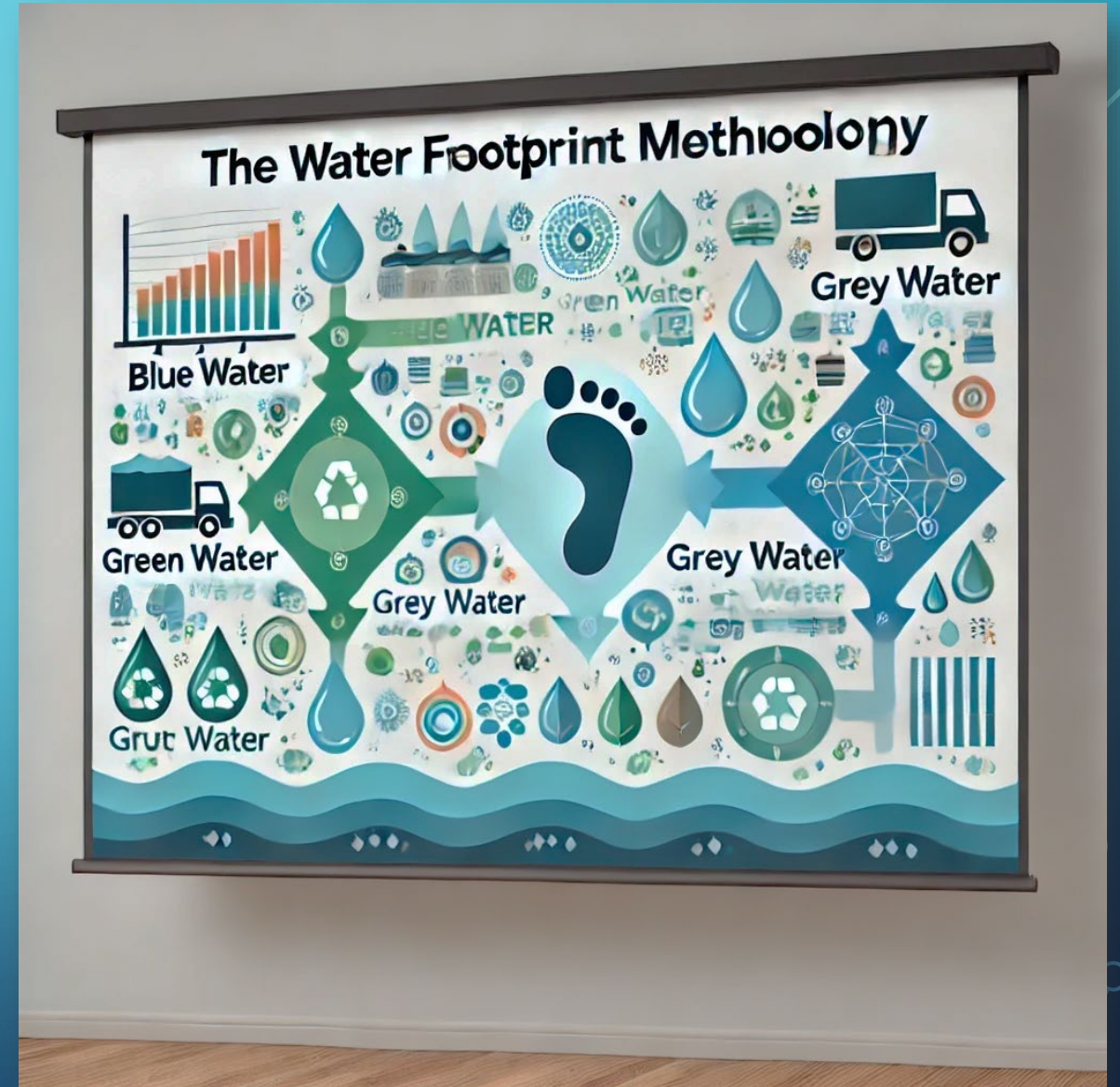
Green Compliance Services

The background features a close-up of a water droplet falling into a pool of water, creating concentric ripples. A dark, rounded rectangular box is centered over the ripples. On either side of this box, there are stylized, light blue circuit board traces with circular nodes. The text 'WATER FOOTPRINT' and 'METHODOLOGY' is written in white, bold, sans-serif font, with each line underlined.

WATER FOOTPRINT METHODOLOGY

This report evaluates the water footprint of Messianic Clothing Pvt. Ltd., a garment manufacturing unit, using the ISO 14046 and Water Footprint Network (WFN) methodologies.

The water footprint is categorized into **Blue Water Footprint (BWF)**, **Grey Water Footprint (GWF)**, and **Green Water Footprint (GWF)**. The assessment is based on the yearly water consumption and discharge data provided by the organization.





1. Standards Used:

ISO 14046 – Life Cycle Assessment-based approach
Water Footprint Network (WFN) – Blue, Green, and Grey water assessment

2. Key Components of Water Footprint:

Blue Water – Surface & groundwater consumption

Green Water – Rainwater stored in soil & used by plants

Grey Water – Water needed to dilute pollutants to meet quality standards



3. Data Collection:

- Water intake records (borewell, municipal supply)
- Water usage (industrial, domestic, cooling, washing)
- Discharge data (ETP-treated, RO waste, municipal sewer)
- Pollution concentration limits (BOD, COD, TSS)

4. Calculation Approach:

- Water Balance Analysis: Ensuring $\text{input} = \text{output} + \text{losses}$
- Blue, Green, and Grey Water Quantification
- Impact Assessment & Efficiency Evaluation

5. Objective:

- Optimize water usage & reduce footprint
- Improve water efficiency in operations
- Ensure regulatory compliance & sustainability

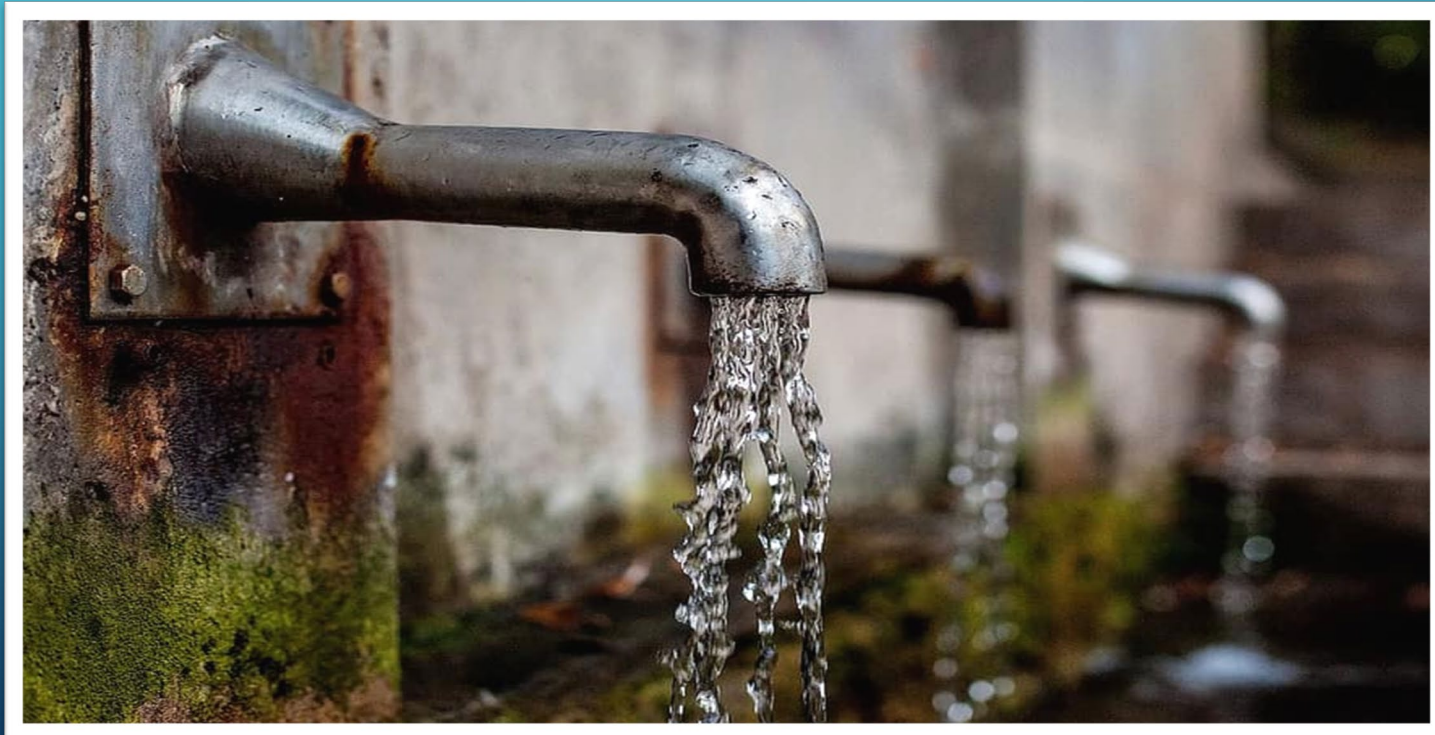
WATER FOOTPRINT CALCULATION & ANALYSIS

Water Footprint Type	Definition	Data Required	Methodology
Blue Water Footprint	Freshwater consumed from surface water (rivers, lakes) or groundwater sources.	Borewell/ municipal water intake	(ISO 14046/WFN)
		Wastewater discharge	
		RO & ETP treatment data	
Green Water Footprint	Rainwater used directly for production or absorbed by soil and plants.	Rainwater harvesting data	(ISO 14046/WFN)
		Crop/land area (for agriculture-related use)	
Grey Water Footprint	Freshwater required to dilute pollutants to safe environmental levels.	Effluent water quality data	(ISO 14046/WFN)
		Pollutant concentration limits	
		ETP discharge values	
Total Water Footprint	Overall freshwater impact of the organization.	Water intake & consumption records	(ISO 14046/WFN)
		Effluent discharge & treatment data	

WATER FOOTPRINT CALCULATION & ANALYSIS

Assumptions for Natural Background & Maximum Permissible Limits (As per CPCB/WHO)

Parameter	C _{max} (mg/L) (CPCB Norms)	C _{nat} (mg/L) (Assumed Natural Level)
BOD	30 mg/L	3 mg/L
COD	250 mg/L	30 mg/L
TSS	100 mg/L	20 mg/L



KEY FOCUS AREAS

Water Efficiency

Assessing **blue, green, and grey water consumption** to identify areas for reduction and efficiency improvement.

Wastewater Treatment & Reuse

Enhancing **Effluent Treatment Plant (ETP) performance** and optimizing **Reverse Osmosis (RO) wastewater reuse**.

Innovation & Technology

Investing in **water-efficient technologies** and process improvements to reduce wastage.

Data-Driven Decision Making

Utilizing **water balance assessments** and real-time monitoring to make informed decisions.

This Water Footprint Report serves as a guiding document to help **Messianic Clothing Pvt. Ltd.** achieve its **sustainability goals**, minimize its environmental impact, and ensure long-term water security for future generations.


The background features a close-up of a water droplet falling into a pool of water, creating concentric ripples. A dark, rounded rectangular box is centered over the ripples. On either side of the box, there are stylized, light blue circuit board traces with circular nodes. The text is white and bold, with underlines under each line.

WATER FOOTPRINT ASSESSMENT - 2025


		Jan (Kl)	Feb (Kl)	Mar (Kl)	Apr (Kl)	May (Kl)	Jun (Kl)	Jul (Kl)	Aug (Kl)	Sep (Kl)	Oct (Kl)	Nov (Kl)	Dec (Kl)	Total (Kl)
Water Intake	Ground Water	97	87	66	79	84	83	97	84	59	29	37	77	881
	Municipal Water	219	196	209	254	252	257	266	257	171	137	168	223	2607
	Total Water Intake	316	283	275	333	336	340	363	341	230	166	205	300	3488
RO Water - Municipal supply	RO Intake	81	69	79	73	76	77	91	86	50	50	66	88	885
Industrial Use Municipal supply	Boiler (Steam)	14	12	12	10	13	18	13	14	14	9	12	13	155
	From Boiler Blow Down	3	2	2	3	3	3	3	3	3	2	3	3	30
	Washing & Laundry	122	113	116	122	115	112	111	107	69	76	88	120	1269
Domestic Use Municipal Supply	RO Filtered water - Drinking	43	36	42	38	39	40	48	45	25	26	34	46	462
	RO Waste Water - Domestic Toilet/ Flush	39	33	38	35	36	37	43	41	24	24	32	42	423
	Water Cooler	0	0	0	47	47	47	48	47	35	0	0	0	272
	Fire Testing	1.75	1.57	2.09	2.54	2.02	2.05	2.13	2.05	2.90	2.21	2.26	2.46	26
Industrial Use Ground Water Supply	Washing & Laundry	29	24	20	25	30	30	36	32	28	0	0	35	288
Domestic Use Ground Water Supply	Hand Wash - TOP Floor	44	42	30	35	38	36	42	34	20	19	24	26	389
	Canteen & Utensil Cleaning	24.34	21.79	16.53	18.66	16.14	17.46	19.36	18.48	11.37	10.27	13.11	15.99	203
Fire Tank	Fire Tank	85	85	85	85	85	85	85	85	85	85	85	85	85
ETP	From Washing & Laundry	217.86	196.69	195.18	212.25	208.20	204.34	211.05	200.99	140.84	110.01	126.65	222.61	2246.68
	From Boiler Blow Down	2.60	2.40	2.40	2.60	2.60	2.50	2.70	2.50	2.60	2.30	2.50	2.70	30.40
	Total ETP Inlet	220	199	198	215	211	207	214	203	143	112	129	225	2277.08
	ETP Outlet	217	196	195	212	208	204	211	201	141	111	127	222	2243.83
ETP RO	ETP RO Inlet	217.24	196.19	194.69	211.71	207.72	203.82	210.63	200.52	141.35	110.67	127.26	222.02	2243.83
	ETP RO Treated water - Washing & Laundry	108.62	98.09	97.35	105.85	103.86	101.91	105.31	100.26	70.67	55.34	63.63	111.01	1121.92
	ETP RO Treated water - Factory cleaning & Gardening	11	10	10	11	10	10	11	10	7	6	6	11	112.19
	ETP RO Waste water	98	88	88	95	93	92	95	90	64	50	57	100	1009.72
Discharge to Municipal Sewer	ETP RO Waste water (Treated waste water)	98	88	88	95	93	92	95	90	64	50	57	100	1010
	75% Drinking water	32	27	31	28	30	30	36	34	19	19	26	34	346
	Domestic Toilet	39	33	38	35	36	37	43	41	24	24	32	42	423
	Fire Testing	2	2	2	3	2	2	2	2	3	2	2	2	26
	Handwash & Canteen	68	64	46	54	54	53	61	52	31	29	37	42	593
	Total Discharge in Municipal Sewer	238	214	205	215	216	214	238	219	141	125	154	221	2398

2025 Water Management


 Total Water Withdrawal
3488 KL

 Ground Water
881 KL

 Municipal Water
2607 KL

 Domestic Usage
1776 KL

 Industrial Usage
1712 KL

 ETP RO Reject Water Reused
1234.11 KL

 RO Reject Water Reused
423 KL

 Wastewater Discharge
2398 KL

ESG Highlights:

- Municipal water is the primary water source.
- RO reject water is reused in domestic use.
- ETP RO filtered water is reused in industrial and domestic use.
- Wastewater is discharged to municipal sewage.

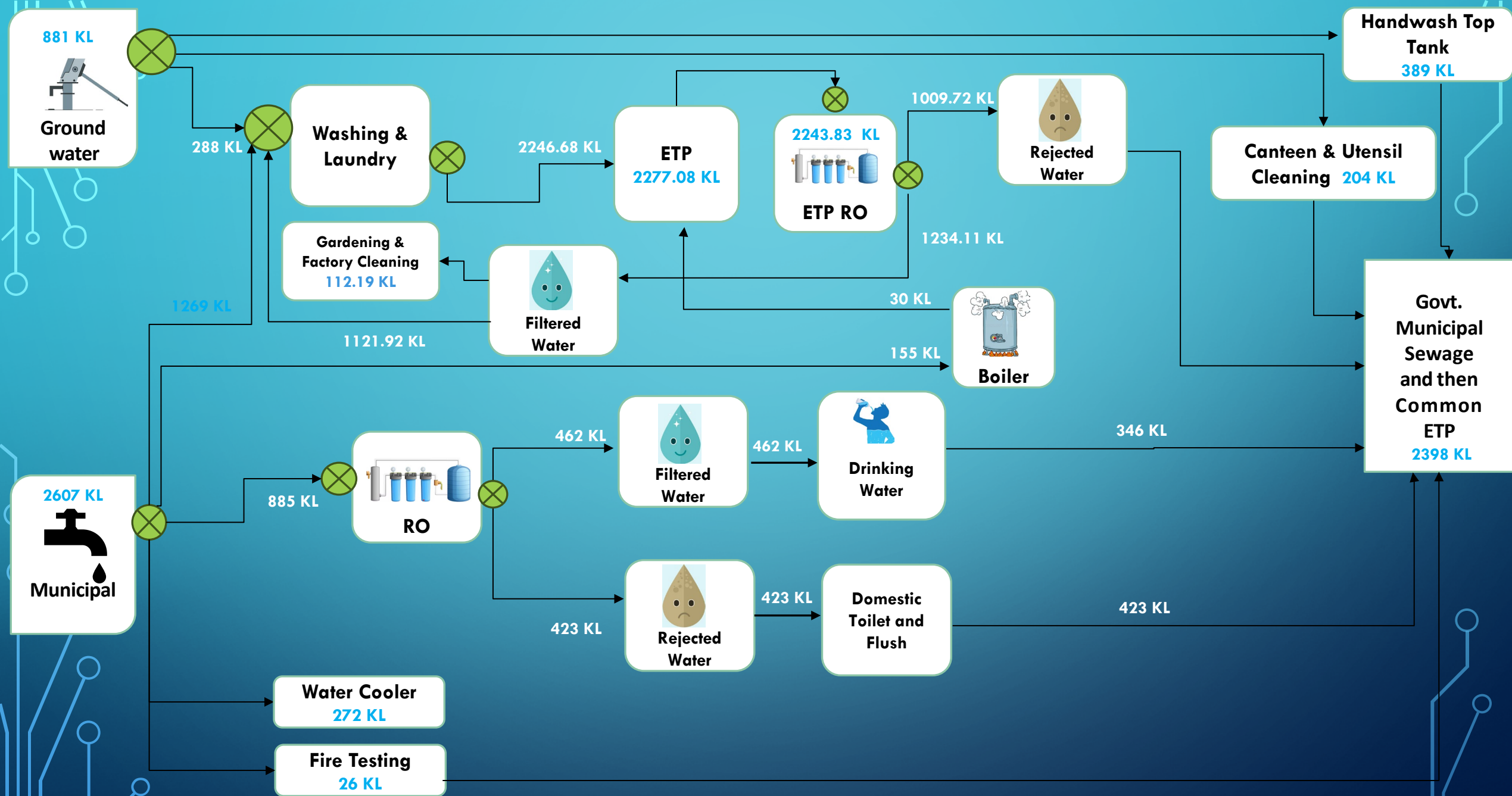
Water Footprint Type	Volume (KL/year)	Remarks
Blue Water Footprint	3488	Freshwater withdrawn from groundwater and municipal sources
Grey Water Footprint	Not Applicable	Wastewater discharged to municipal sewer for centralized treatment
Green Water Footprint	0	No rainwater-based agricultural activity

Statement:

The facility discharges wastewater into the municipal sewer system, where it undergoes centralized treatment. As there is no direct discharge of untreated wastewater into natural water bodies, the grey water footprint attributable to the facility is considered minimal and not calculated separately in this assessment.

DISCHARGE	UNITS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Domestic (KL)	KL	141	126	117	120	122	122	143	129	77	75	97	121
No. of Working Days	Number	26	24	24	26	26	25	27	25	26	23	25	27
Discharge Per Day	KL	5	5	5	5	5	5	5	5	3	3	4	4
DISCHARGE	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Industrial (KL)	KL	98	88	88	95	93.47	91.72	94.78	90.24	63.61	49.80	57.27	99.91
No. of Working Days	Number	26	24	24	26	26	25	27	25	26	23	25	27
Discharge Per Day	KL	4	4	4	4	4	4	4	4	2	2	2	4

NORMALIZED WATER DISCHARGE



 Meter

WATER FLOW CHART - 2025



CONCLUSION

Indicator	Value
Total Water Intake	3488 KL/year
Groundwater Dependency	25%
Industrial Water Use	~49%
Domestic Water Use	~51%
Wastewater Discharge	2398 KL/year

The water footprint assessment indicates that the facility primarily relies on municipal water supply for its operational requirements. Domestic water consumption represents the largest share of total water use, while industrial water use is mainly associated with boiler and washing operations.

Wastewater generated from the facility is discharged to the municipal sewer system for centralized treatment. Continued monitoring of water consumption and implementation of efficiency measures can further enhance sustainable water management practices.

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WATER RISK ASSESSMENT
USING WRI AQUEDUCT

Input address	Match address	Latitude	Longitude	Major Basin	Minor Basin	Aquifer	Country	Province	Stress
B, 18, Hosiery Complex, Block B, Noida Phase-2, Phase-2, Noida, Uttar Pradesh 201304, India	-	28.5311214	77.4014718	Ganges - Bramaputra	Yamuna 1	-	India	Uttar Pradesh	Extremely High (>80%)

WATER RISK ASSESSMENT USING WRI AQUEDUCT

Statement:

To assess water-related risks at the facility location, the Aqueduct Water Risk Atlas developed by the World Resources Institute (WRI) was used. The Aqueduct tool provides global datasets and maps that evaluate water stress, drought risk, flood risk, and seasonal variability.

Interpretation:

The Aqueduct assessment indicates that the facility is in an Extremely High-Water Stress region, meaning that more than 80% of available water resources are withdrawn annually. This signifies intense competition for water among industrial, agricultural, and domestic users.

Operating in such a region highlights the importance of efficient water management, conservation measures, and responsible water stewardship to minimize pressure on local water resources. In response to the identified water risk, the facility has implemented the following measures:

- Continuous monitoring of water consumption
- Installation of water-efficient fixtures and equipment
- Identification of opportunities for water reuse and recycling
- Awareness programs to promote responsible water use among employees

RECOMMENDATIONS FOR WATER MANAGEMENT



Implement low-flow fixtures / aerators, sensor-based taps & fix leakages to reduce domestic water consumption.



Rainwater Harvesting – Implement systems to reduce borewell dependency.



Evaluate and modify **RO reject water management strategies** to minimize waste.



Implement real-time **water monitoring systems** to track efficiency and identify further optimization opportunities.



Water Treatment Efficiency – Improve closed-loop recycling systems to reduce ETP load.



END OF REPORT