

A decorative graphic on the left side of the page, consisting of a network of light blue lines and circles resembling a circuit board or data network, set against a dark grey background.

MESSIANIC CLOTHING
PVT. LTD.

**A-13, 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

Water Footprint Assessment

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

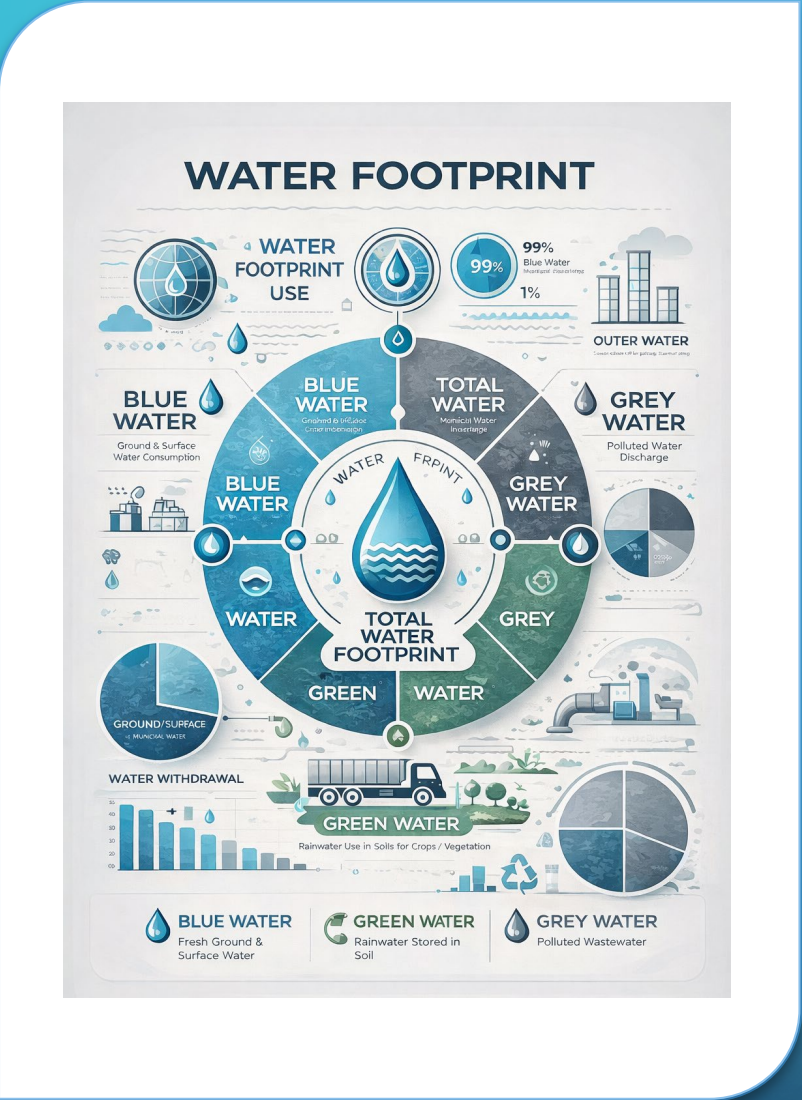


Established in 2001, Messianic Clothing Pvt Ltd is a leading production house specializing in the design and manufacturing of high-fashion garments for ladies. Based in Noida, the company has built a strong reputation for its high-quality apparel and has been exporting to prominent markets in Europe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

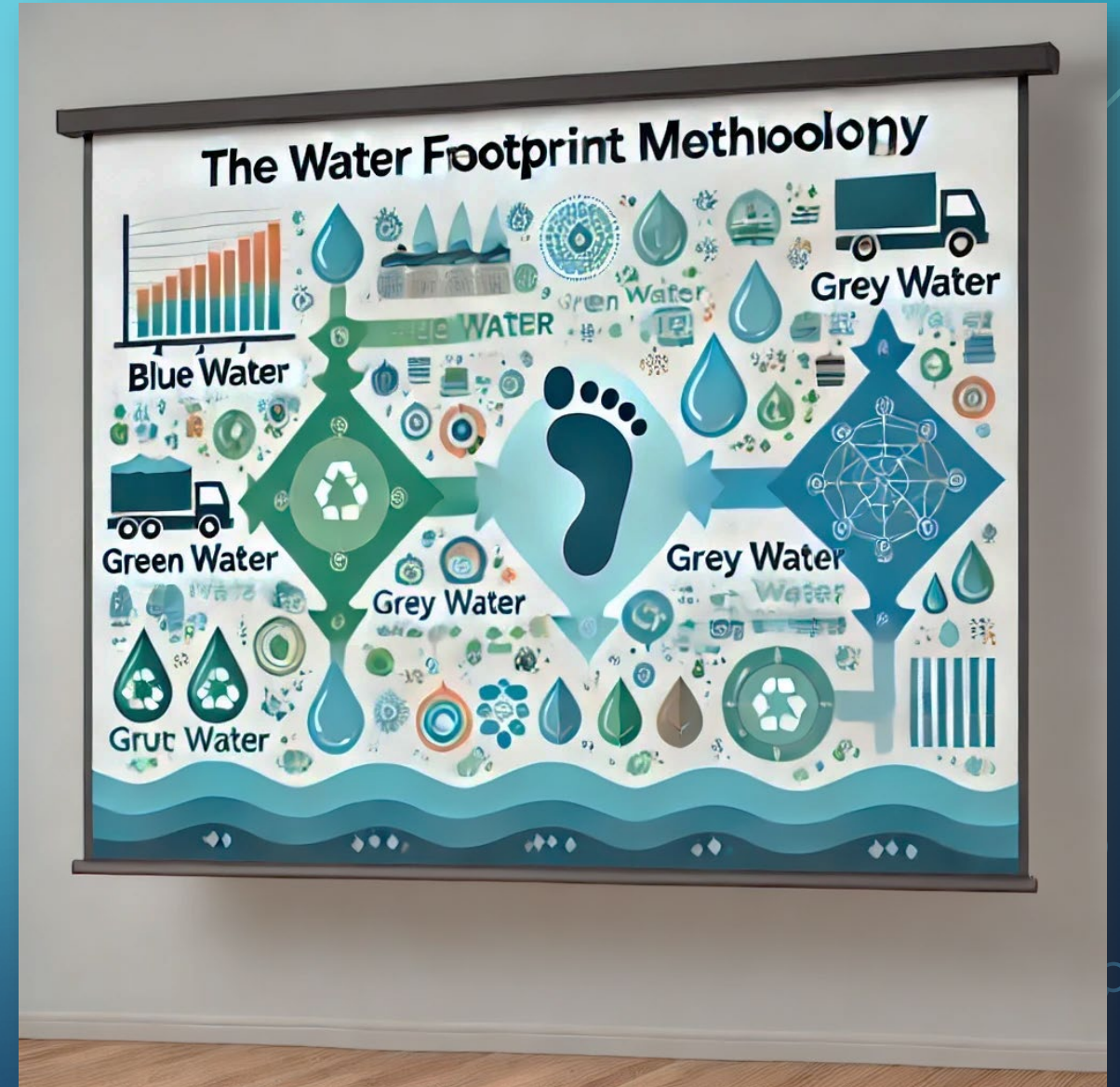
Green Compliance Services

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. Inside this box, the text 'WATER FOOTPRINT' and 'METHODOLOGY' is written in white, bold, sans-serif font, with each line underlined. Light blue circuit-like lines with circular nodes extend from the left and right sides of the dark box. The overall color palette is shades of blue and white.

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



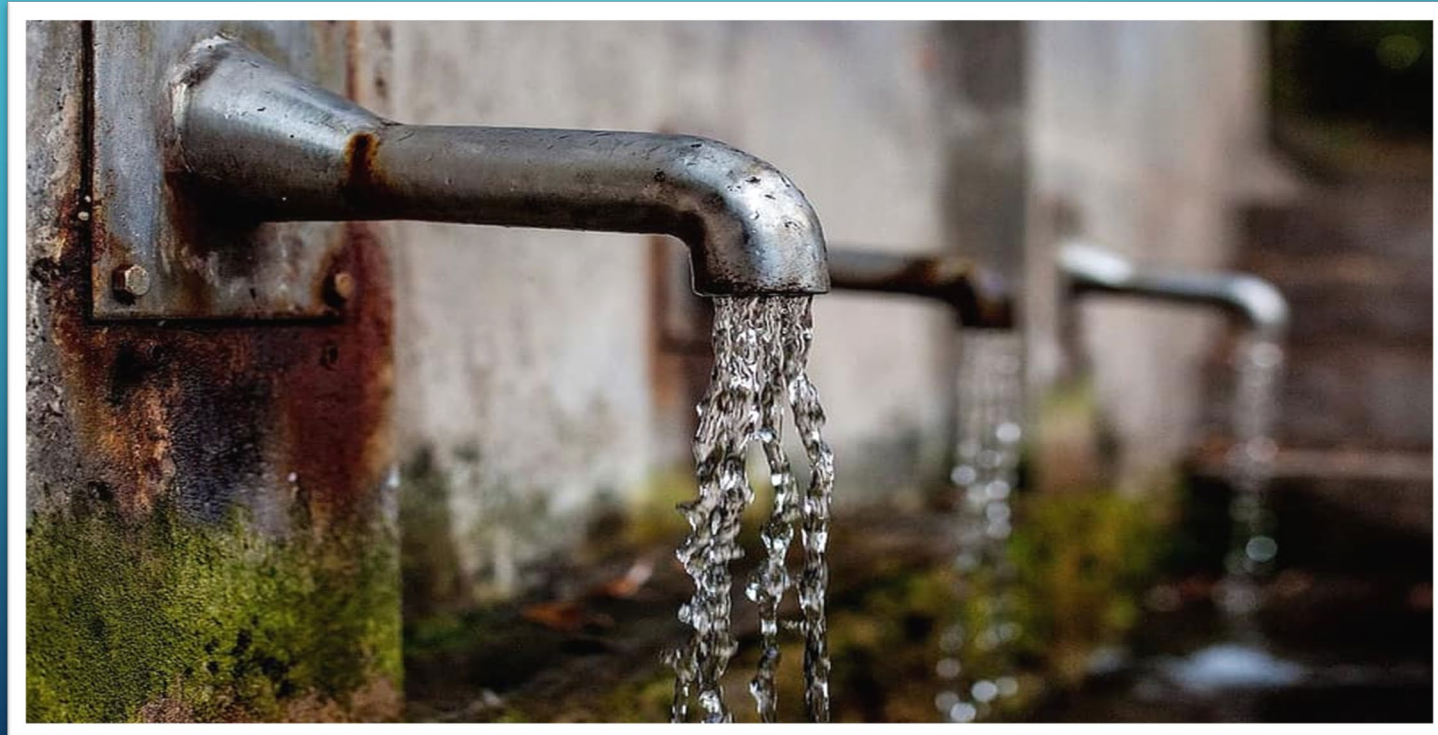
WATER FOOTPRINT CALCULATION & ANALYSIS

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	Cmax (mg/L) (CPCB Norms)	Cnat (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. Inside this box, the title 'WATER FOOTPRINT ASSESSMENT - 2025' is written in white, bold, sans-serif font. The text is underlined. On either side of the box, there are stylized, light blue circuit board traces with circular nodes, extending horizontally.

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	123	121	116	112	122	122	137	130	45	36	81	102	1246
	Municipal Water	272	254	256	214	247	256	298	286	168	118	220	268	2859
	Total Water Intake	395	375	372	326	369	378	435	416	213	154	301	370	4104
RO Water - Municipal supply	RO Intake	119	121	115	101	101	95	113	120	52	68	92	121	1219
Industrial Use Municipal supply	RO Permit Water - Boiler (Steam)	21	19	22	11	11	17	24	19	12	14	18	21	209
	From Boiler Blow Down	3	2	2	3	3	3	3	3	3	2	3	3	30
	Washing & Laundry	131	112	117	53	87	95	110	97	67	34	108	124	1133
Domestic Use Municipal Supply	RO Filtered water - Drinking	66	67	63	55	56	52	62	66	29	37	51	67	670
	RO Waste Water - Domestic Toilet/ Flush	54	55	52	45	46	43	51	54	23	30	42	55	548
	Water Cooler	0	0	0	47	47	47	48	47	35	0	0	0	272
	Fire Testing	2.08	2.27	2.00	2.14	1.98	2.05	2.37	2.29	2.19	2.27	2.20	2.15	26
Industrial Use Ground Water Supply	Washing & Laundry	16	22	17	26	43	44	37	39	0	0	28	40	312
Domestic Use Ground Water Supply	Hand Wash - TOP Floor	71	64	65	56	55	52	65	62	31	20	30	38	610
	Canteen & Utensil Cleaning	35.58	35.06	33.61	30.19	23.38	25.52	35.72	28.62	13.43	16.38	22.26	24.32	324
Fire Tank	Fire Tank	200	200	200	200	200	200	200	200	200	200	200	200	200
ETP	From Washing & Laundry	264.76	245.97	250.06	140.42	235.04	254.42	276.63	255.17	130.95	48.20	247.70	288.11	2637.42
	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	30.41
	Total ETP Inlet	267	248	252	143	238	257	279	258	134	51	250	291	2667.82
	ETP Outlet	263	245	249	141	234	253	275	254	132	50	246	286	2627.80
ETP RO	ETP RO Inlet	263.35	244.64	248.67	140.87	234.07	253.07	275.14	253.81	131.54	49.75	246.45	286.45	2627.80
	ETP RO Treated water - Washing & Laundry	125.65	116.23	119.49	58.05	110.01	118.78	132.70	123.33	63.60	17.83	120.29	129.22	1235.19
	ETP RO Treated water - Factory cleaning & Gardening	19	18	17	19	19	20	19	16	9	10	15	28	210.10
	ETP RO Waste water	119	110	112	63	105	114	124	114	59	22	111	129	1182.51
Discharge to Municipal Sewer	ETP RO Waste water (Treated waste water)	119	110	112	63	105	114	124	114	59	22	111	129	1183
	75% Drinking water	49	50	47	42	42	39	47	50	22	28	38	50	503
	Domestic Toilet	54	55	52	45	46	43	51	54	23	30	42	55	548
	Fire Testing	2	2	2	2	2	2	2	2	2	2	2	2	26
	Handwash & Canteen	106	99	99	86	79	78	100	91	45	36	53	62	934
	Total Discharge in Municipal Sewer	330	316	311	239	273	275	324	311	151	119	245	298	3193

2025 Water Management

 Total Water Withdrawal
4104 KL

 Ground Water
1246 KL

 Municipal Water
2859 KL

 Domestic Usage
2450 KL

 Industrial Usage
1685 KL

 ETP RO Reject Water Reused
508 KL

 RO Reject Water Reused
508 KL

 Wastewater Discharge
3193 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	4104	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

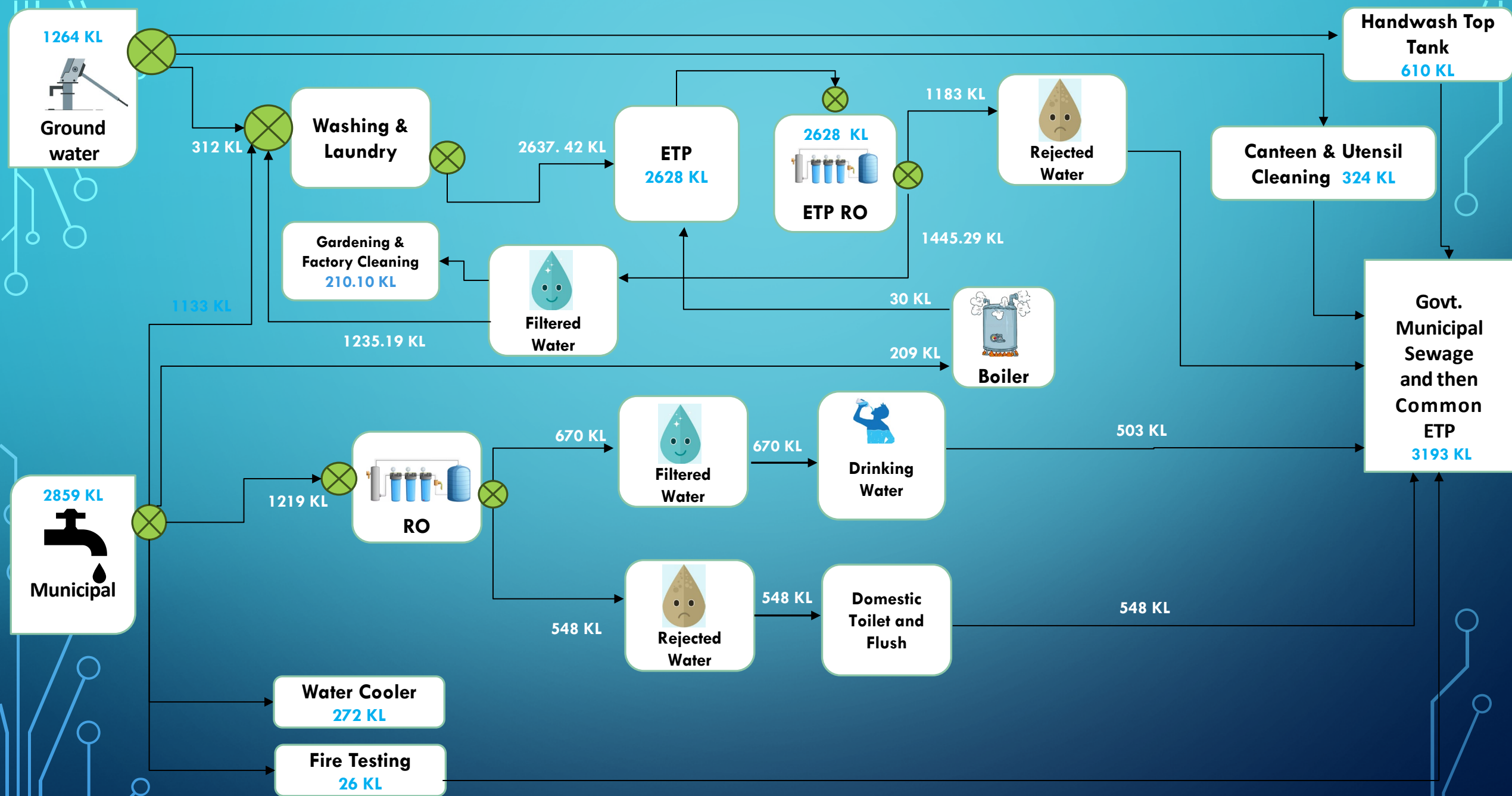
Statement:

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.

NORMALIZED WATER DISCHARGE

DISCHARGE	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Domestic (KL)	KL	211	206	200	175	168	161	200	197	92	97	135	169
No. of Working Days	Number	26	24	24	26	26	25	27	25	26	23	25	27
Discharge Per Day	KL	8	9	8	7	6	6	7	8	4	4	5	6

DISCHARGE	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Industrial (KL)	KL	119	110	112	63	105.33	113.88	123.81	114.21	59.19	22.39	110.90	128.90
No. of Working Days	Number	26	24	24	26	26	25	27	25	26	23	25	27
Discharge Per Day	KL	5	5	5	2	4	5	5	5	2	1	4	5



 Meter

WATER FLOW CHART - 2025



CONCLUSION

Indicator	Value
Total Water Intake	4104 KL/year
Groundwater Dependency	30%
Industrial Water Use	~40%
Domestic Water Use	~60%
Wastewater Discharge	3193 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