



RICHA FASHION
PRIVATE LIMITED

A-115, SECTOR 65,

NOIDA, UP

WATER FOOTPRINT
REPORT
YEAR 2025



ABOUT THE REPORT

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INTRODUCTION

This report assesses the water footprint of Richa Fashion 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 Richa Fashion 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 on March 10, 2011, Richa Fashion Private Limited is a leading export house specializing in the manufacturing and trading of fashion garments and accessories. Since its inception, the company has made a mark in the international market, particularly in the export of ladies' woven garments.

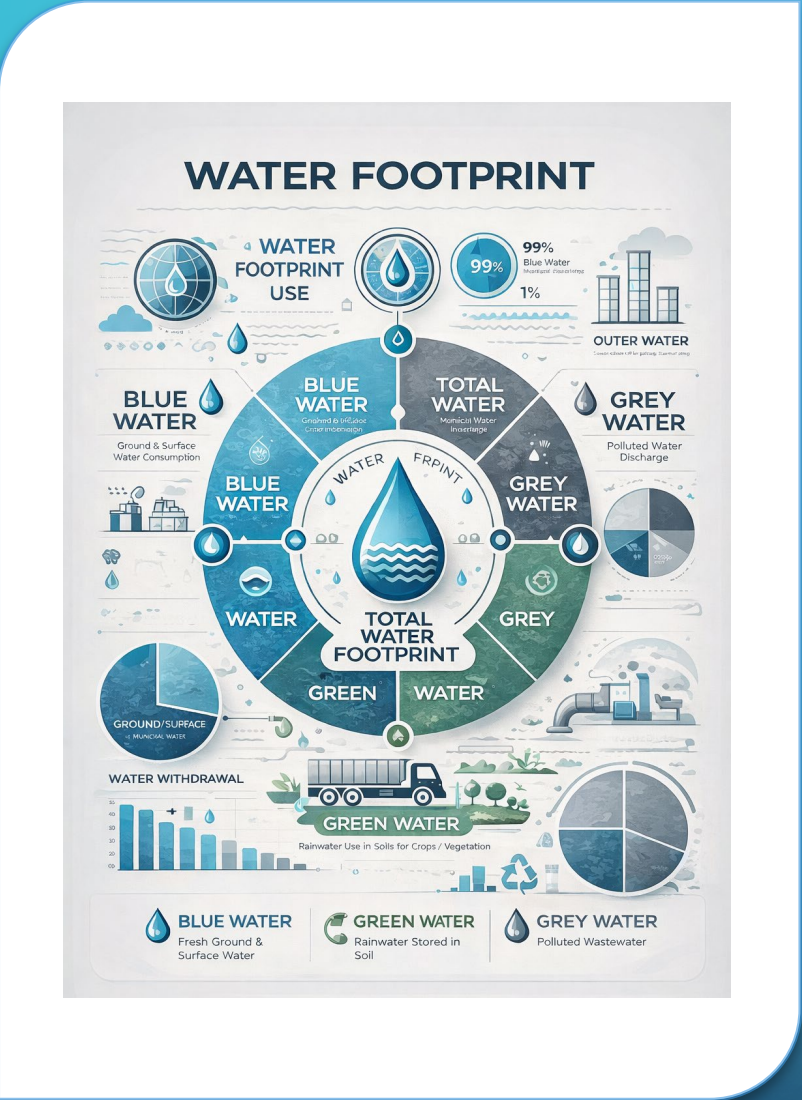
Its dedication to quality, excellence, and safety has played a key role in building a strong global reputation.

Guided by visionary management, the company continues to drive strategic growth and innovation in the industry.

The company emphasizes creating a comfortable work environment with a focus on health, safety, and sustainability.



ABOUT
THE REPORT



This Water Footprint Report for Richa Fashion 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 Richa Fashion 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. Pranav Verma | 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:

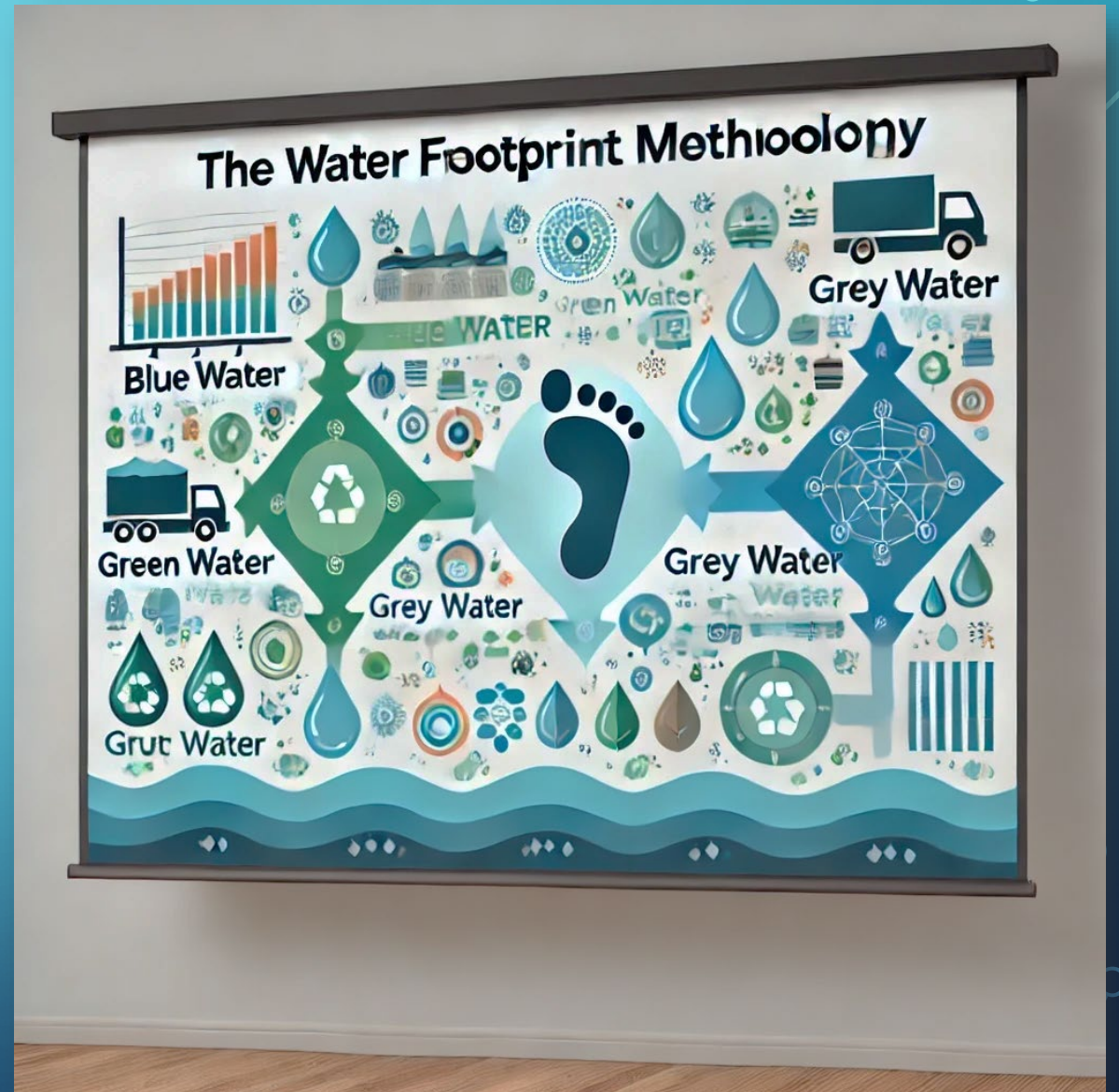
Green Compliance Services

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 dominated by various shades of blue.

WATER FOOTPRINT METHODOLOGY

This report evaluates the water footprint of Richa Fashion 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 input = output + 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

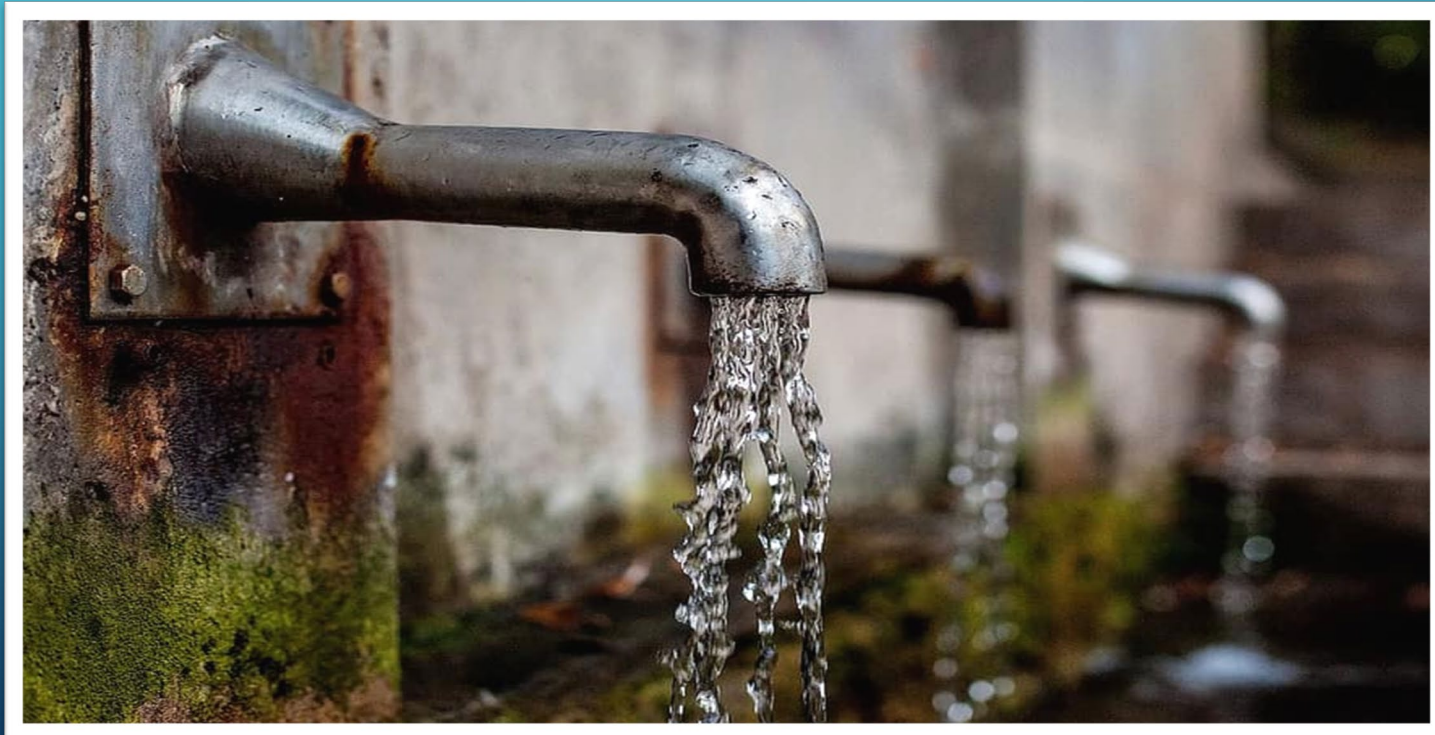
WATER FOOTPRINT CALCULATION & ANALYSIS

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 **Richa Fashion 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, glowing blue circuit lines with circular nodes. The text is white and bold, with underlines.

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	305	309	299	312	312	300	307	303	316	299	301	316	3675
	Municipal Water	25	24	24	25	24	24	24	24	24	23	25	21	287
	Total Water Intake	330	333	323	337	336	323	331	327	339	322	326	337	3962
RO Water (Ground water)	RO Intake	122	127	135	125	126	124	125	126	129	127	128	136	1531
Ground Water	RO Filtered water - Drinking	29	31	32	30	30	30	30	30	31	31	31	33	368
	RO Filtered water - Boilers	30.80	32.31	34.31	31.68	32.05	31.38	31.60	32.02	32.76	32.29	32.53	34.36	388
	RO Filtered water - Cooler, Air Washer, Utensil Wash, Food Cooking	6.86	7.19	7.64	7.05	7.14	6.98	7.04	7.13	7.29	7.19	7.24	7.65	86
	RO Wastewater - Domestic Toilet/ Flush	55	57	61	56	57	56	56	57	58	57	58	61	689
	Washing / Laundry	185	181	161	187	185	177	183	177	186	171	172	178	2144
	Total Ground water use	306	309	297	312	312	301	307	303	315	299	300	314	3675
Municipal Water	Hand wash	4	4	4	4	4	4	4	4	4	4	4	3	43
	Washing / Laundry	21	21	21	21	20	20	20	21	20	20	21	18	244
	Total Municipal water use	25	24	24	25	24	24	24	24	24	23	25	21	287
Ground Water + Municipal Water	Total Domestic Use	94	99	105	97	98	96	97	98	100	99	100	104	1186
Ground Water + Municipal Water	Total Industrial Use	237	234	216	240	238	228	235	229	239	224	226	230	2776
Fire Tank	Fire Tank	120	120	120	120	120	120	120	120	120	120	120	120	120
ETP	From Washing & Laundry	223.28	218.58	197.41	225.90	222.99	213.31	220.10	213.73	223.34	207.03	209.31	212.41	2587.40
	From Boiler Blow Down	4.60	4.40	4.40	4.60	4.60	4.50	4.70	4.50	4.60	4.30	4.50	4.70	54.40
	Total ETP Inlet	228	223	202	230	228	218	225	218	228	211	214	217	2641.80
	ETP Outlet	225	220	199	227	224	215	222	215	225	208	211	214	2603.23
	ETP Treated Water Discharge to Municipal Authority Sewage (Without RO Treatment)	157	154	139	159	157	150	155	151	157	146	147	150	1822.26
ETP RO	ETP RO Inlet	67.36	65.92	59.66	68.14	67.28	64.39	66.46	64.51	67.38	62.47	63.21	64.18	780.97
	ETP RO Treated water - Washing & Laundry	23.58	23.07	20.88	23.85	23.55	22.54	23.26	22.58	23.58	21.87	22.12	22.46	273.34
	ETP RO Treated water - Factory cleaning & Gardening	7	7	6	7	7	6	7	6	7	6	6	6	78.10
	ETP RO Waste water	37	36	33	37	37	35	37	35	37	34	35	35	429.53
Discharge to Municipal Sewer	ETP Discharge (RO Wastewater + Treated wastewater)	194	190	172	196	194	186	192	186	194	180	182	185	2252
	75% Drinking water	22	23	24	23	23	22	22	23	23	23	23	24	276
	Domestic Toilet	55	57	61	56	57	56	56	57	58	57	58	61	689
	Cooler, Handwash, Air Washer, Utensil Wash, Food Cooking	11	11	11	11	11	11	11	11	11	11	11	11	129
	ETP RO PERMIT (Factory Clean , Fire Test Mock Drill & Gardening) - Domestic Recycle	7	7	6	7	7	6	7	6	7	6	6	6	78
	Total Discharge in Municipal Sewer	288	288	275	293	291	281	287	283	293	277	280	288	3424

2025 Water Management



Total Water Withdrawal
3962 KL



Municipal Water
287 KL



Ground Water
3675 KL



Domestic Usage
1186 KL



Industrial Usage
2776 KL



ETP RO Reject Water Reused
780.97 KL



RO Reject Water Reused
689 KL



Wastewater Discharge
3424 KL

ESG Highlights:

- Ground 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	3962	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

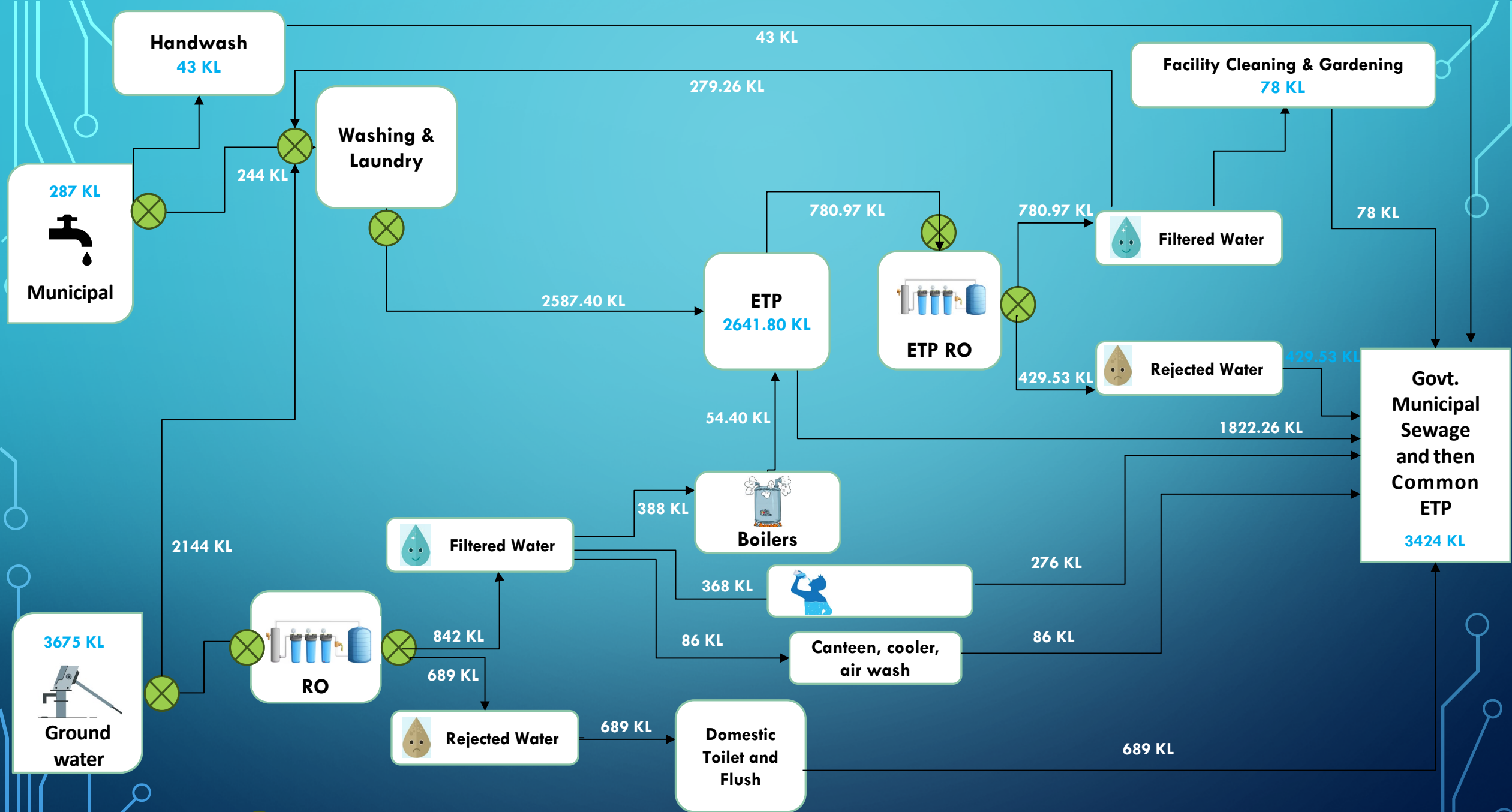
Statement:

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	94	98	103	96	97	95	96	97	99	97	98	103
No. of Working Days	Number	27	24	24	26	27	25	27	23	26	22	25	27
Discharge Per Day	KL	3	4	4	4	4	4	4	4	4	4	4	4

DISCHARGE	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Industrial (KL)	KL	194	190	172	196	193.99	185.66	191.62	186.01	194.29	180.13	182.24	185.06
No. of Working Days	Number	27	24	24	26	27	25	27	23	26	22	25	27
Discharge Per Day	KL	7	8	7	8	7	7	7	8	7	8	7	7



287 KL

Municipal

Handwash
43 KL

Washing & Laundry

Facility Cleaning & Gardening
78 KL

ETP
2641.80 KL

ETP RO

Filtered Water

Rejected Water

Govt. Municipal Sewage and then Common ETP
3424 KL

Boilers

Filtered Water

Canteen, cooler, air wash

Rejected Water

Domestic Toilet and Flush

3675 KL

Ground water

RO

Meter

WATER FLOW CHART - 2025



CONCLUSION

Indicator	Value
Total Water Intake	3962 KL/year
Groundwater Dependency	93%
Industrial Water Use	~70%
Domestic Water Use	~30%
Wastewater Discharge	3424 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.



WATER RISK ASSESSMENT
USING WRI AQUEDUCT

Input address	Match address	Latitude	Longitude	Major Basin	Minor Basin	Aquifer	Country	Province	Overall Water Risk
A-115, A Block, Sector 65, Noida, Uttar Pradesh 201309, India	-	28.609903	77.3818101	Ganges - Bramaputra	Yamuna 1	-	India	Uttar Pradesh	Extremely High (4-5)

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