



Site Water Stewardship Performance




Shared Water Challenges




Sr.No	Shared Challenge	Impact	Likelihood	Prioritization	Actions	Key Players
1	Pollution of Surface Water	High	High	High	Deployment of Onsite Effluent Treatment Plant - G Infrastructure modification to ensure Zero Wastewater Discharge from Site - G Soil and Groundwater Protection Plans to be made- G Sewage Treatment Plant in Catchment- R Collaboration with NGOs for CSR Projects – G Clean up Drives for Surface Water Sources – A	1. Municipal Committee Jhelum 2. DC Jhelum
2	Pollution of Groundwater	High	Medium	Medium	Deployment of Onsite Effluent Treatment Plant - G Infrastructure modification to ensure Zero Wastewater Discharge from Site - G Soil and Groundwater Protection Plans to be made- G Sewage Treatment Plant in Catchment- R Deployment of Filtration Plants in Communities- G (on going project) Deployment of Highly Absorptive Filtration Plants on Site- G	1. Municipal Committee 2. DC Jhelum
3	Depleting Water Table	High	Low	Medium	Water Withdrawal Monitoring of site - G Hydrological Study - G Awareness sessions on responsible water usage both on site and in the catchment- G Identification and sharing of Drip Irrigation Practices/Learnings – G Enable Tree Plantation – G	1. MC 2. DC 3. EPA
4	Inadequate Maintenance of Water Filtration Plants & Mangla Reservoir	Medium	Medium	Medium	Organization of promotional and information campaigns for the local community, farmers, BAT employees, subcontractors regarding the value of water, broadly understood wastewater management and good practices in water management- G Maintenance and operation of Filtration Plants being done by PTC – G	1. Local farmers Local community 2. BAT employees and subcontractors
5	Piping and sanitation network Infrastructure Failure	High	Low	Medium	Water Infrastructure of Site has a Maintenance Regime Opportunities: Development of Infrastructure Maintenance Regime of Catchment Water Sources	1. DC Jhelum 2. Municipal Committee
6	Poor Water Management	High	High	High	Identification of good practices related to water and wastewater management that may be applicable to the BAT catchment area and the factory itself. Collaboration with stakeholders in the implementation of identified good practices in the catchment area, the implementation of which is technically feasible and economically rational. Replication of identified good water management practices in the factory- A	All Stakeholders
7	Lack of Awareness	High	High	High	Awareness Sessions – A Share Hydrological Study Report with Stakeholders – G	All Stakeholders

Driving increase in Water Recycling


2017	▶	2022
39,106 m³ Water Withdrawn		* 52,488 m³ Water Withdrawn
40.9% Water Recycled	▶	46% Water Recycled



ETP RO Plant Installation




Recycled Water in Services



AWS Certification

Site Water Balance



MO Operations



100% Waste Water Recycled

6ppt
Impact on Recycling %

Shifting focus from Recycling to Conservation

2023													
<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Target</td> <td style="text-align: center;">Achieved</td> </tr> <tr> <td style="text-align: center;">46,343 m³ Withdrawn</td> <td style="text-align: center;">43,393 m³ Withdrawn</td> </tr> </table>	Target	Achieved	46,343 m³ Withdrawn	43,393 m³ Withdrawn	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Target</td> <td style="text-align: center;">Achieved</td> </tr> <tr> <td style="text-align: center;">40.9% Recycled</td> <td style="text-align: center;">43.1% Recycled</td> </tr> </table>	Target	Achieved	40.9% Recycled	43.1% Recycled				
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 <p>L3 Monitoring MO & FMC Water</p>	 <p>PMD Exhaust Recovery</p>	 <p>Solar Wash Reuse</p>											
2024													
<p>MAXIMIZE WATER WITHDRAWN REDUCTION THROUGH RE-USE INITIATIVES</p>													

*Volume Expansion vs Baseline



WATER STEWARDSHIP PLAN



PTC Jhelum Factory - Water Stewardship Plan

Sr.No	Action	Timeframe	Action Linkage	Target	Achieved	Value Creation	Scope	Priority	AWS Outcome	Budget (PKR)	Category	Responsible	Accountable	Consulted	Informed	Status
1	Identification of Best Practices Related to Water Stewardship through engagements with stakeholders, suppliers and other End Markets	Cont.	Shared Water Challenge	Improved Water Stewardship	Improved Water Stewardship	Social, Cultural	Internal	Medium	All Outcomes	10,000.00	Long Term	EHSM	EHSM	Relevant Stakeholders	FM	Cont.
2	Establishment of Maintenance and Cleaning regime of Drinking Water Supplies	Cont.	Water Risk/ Shared Water Challenge	PEQS Compliance	Compliant	Social, Cultural	Internal	High	Good Water Quality Status	3,300,000.00	Continuous	FUM/EHSM	FUM/EHSM	FUM/EHSM	ESSM	Cont.
3	Monitoring and Tracking of Soil and Grounwater Protection Policy	Cont.	Water Risk	PEQS Compliance	Compliant	Social, Cultural	Internal	High	IWRAs Good Water Quality Status	N/A	Long Term	EHSM/FUM	EHSM/FUM	EHSM	FM	Cont.
4	Deployment of Legal Register to monitor and track compliance to Water Related Laws	Cont.	Water Risk	Yearly	Compliant	Social, Cultural and Economic	Internal	High	All Outcomes	N/A	Continuous	EHSM	EHSM	LEX	All Employees	Cont.
5	Clean up Drives for IWRAs	Cont.	Shared Water Challenge	Awareness Initiative	Improved Water Stewardship	Social, Cultural	External	Medium	Good Water Governance WASH IWRAs	1,000.00	Long Term	EHSM	EHSM	FM	Factory Audience	Cont.
6	AWS Awareness Session	Cont.	Shared Water Challenge	Awareness Initiative	Improved Water Stewardship	Social, Cultural	External	High	All Outcomes	150,000.00	Long Term	EHSM	EHSM	LEX	LEX	Cont.
7	Identification and sharing of Drip Irrigation Practices	Cont.	Shared Water Challenge	Awareness Initiative	Improved Water Stewardship	Social, Cultural	External	Medium	Good Water Governance Sustainable Water Balance WASH IWRAs	N/A	Long Term	EHSM	EHSM	EHSM	EHSM	Cont.
8	Collaboration with NGOs	Cont.	Shared Water Challenge	Awareness Initiative	Improved Water Stewardship	Social, Cultural, Economic	External	Medium	All Outcomes	N/A	Long Term	EHSM	EHSM	LEX	LEX	Cont.
9	Key Stakeholder Engagement and onboarding	Cont.	Shared Water Challenge	Improved Water Stewardship	Improved Water Stewardship	Social, Cultural	External	High	All Outcomes	10,000.00	Long Term	EHSM	EHSM	LEX	LEX	Cont.
10	Governance of Filtration Plants Installed in the Catchment by PTC	Cont.	AWS Finding	Protection of IWRA	Improved Water Stewardship	Social, Cultural	External	High	IWRAs	1,500,000.00	Long Term	EHSM	EHSM/LEX	LEX	LEX	Cont.
11	Provision of adequate Washroom facilities for all employees	Cont.	Water Risk	Factories Act 1934 Compliance	Compliant	Social, Cultural	Internal	High	WASH	6,600,000.00	Short Term	EHSM/FUM	EHSM	EHSM/FUM	ESSM	Cont.
12	Interconnectivity of Overhead tanks	2022	Water Risk/ Shared Water Challenge	BCP	Compliant	Social, Economic	Internal	High	IWRAs	3,500,000.00	Immediate	FUM	FUM/ESSM	ESSM	FM	Done
13	Installation of condensate recovery line from admoist , DCC and casing kitchen area to Boiler House condensate Tank	2022	Water Opportunity	1000 m3/year reduction in water withdrawn	374 m3 Annual	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	2,200,000.00	Immediate	FUM	FUM/ESSM	ESSM/FM	FM	Done
14	Installation of Sensor Taps in Cafeteria and washrooms	2022	Shared Water Challenge/ Water Opportunity	125 m3/month	56.2 m3/month	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	125,000.00	Immediate	FUM	FUM/ESSM	ESSM/FM	FM	Done
15	Renovation of washroom to provide all the required facilities, provision of ablution area in MOM washroom	2022	1. WASH Improvement Opportunity 2. Shared Water Challenge	Improved Water Stewardship	Improved Water Stewardship	Social, Cultural	Internal	Medium	WASH	6,600,000.00	Immediate	FUM	FUM/ESSM	ESSM/FM	All Employees	Done

*No site water-related compliance violations since 2019



WATER STEWARDSHIP PLAN



PTC Jhelum Factory - Water Stewardship Plan

Sr.No	Action	Timeframe	Action Linkage	Target	Achieved	Value Creation	Scope	Priority	AWS Outcome	Budget (PKR)	Category	Responsible	Accountable	Consulted	Informed	Status
16	Utilization of Recycled Water in Cooling Towers	2023	Water Opportunity	1500 m3/yr	2796 m3/yr	Social, Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	6,000,000.00	Short Term	FUM	FUM	ESSM/EHSM/FM	FM	Done
17	Washroom, Canteen and Masjid Handwash water reused in gardening	2023	Water Opportunity	718 m3/year	718 m3/year	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	800,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Done
18	Ozonation and UV Light implementation in central filtration system	2023	Major Finding	TCC Reduction	99% Reduction in TCC	Social, Cultural	Internal	High	WASH Good Water Quality Status	600,000.00	Long Term	FUM	EHSM	Primary Services IC	FM	Done
19	Establishment of Inspection and Maintenance Regime of Water Network	2023	Water Risk/ Shared Water Challenge	PEQS Compliance	Compliant	Social, Cultural	Internal	Medium	IWRAs	3,300,000.00	Continuous	EHSM/FUM	EHSM/FUM	EHSM	FM	Done
20	Hydrological Study of the Catchment to be conducted	2023	Major Finding	Understanding of Water-Related Performance & Risks in Catchment	Understanding of Water-Related Performance & Risks in Catchment	Social, Cultural	External	High	All Outcomes	3,500,000.00	Short Term	EHSM	EHSM	FM	LEX	Done
21	Deployment of Water Efficient Taps in Local Mosques	2023	Shared Water Challenge	Reduction in Water Wastage	Reduction in Water Wastage	Social, Cultural, Economic	External	High	Good Water Governance Sustainable Water Balance WASH IWRAs	470,000.00	Long Term	EHSM	EHSM	LEX	Community Members	Done
22	Deployment of Signs & Signages in Mosques	2023	Shared Water Challenge	Awareness Initiative	Improved Water Stewardship	Social, Cultural	External	Medium	Good Water Governance WASH IWRAs	5,000.00	Immediate	EHSM	EHSM	LEX	Community Members	Done
23	Deployment of Water Coolers in Catchment	2023	Shared Water Challenge	Provision of Drinking Water	Target Achieved	Social, Cultural, Economic	External	High	Good Water Governance Good Water Quality Status WASH	500,000.00	Long Term	EHSM	EHSM	LEX	LEX	Done
24	Provision of Portable Tap Purifiers	2023	Shared Water Challenge	Provision of Clean Drinking Water	Target Achieved	Social, Cultural, Economic	External	Medium	Good Water Governance Good Water Quality Status WASH	60,000.00	Short Term	EHSM	EHSM	LEX	LEX	Done
25	Steam Condensate recycle from PMD Casing Kitchen	2024	Water Opportunity	638 m3/yr	N/A	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	200,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Planned
26	High Pressure Spray Taps for SMD Gumpot Washing	2024	Water Opportunity	1248 m3/yr	N/A	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	1,500,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Planned
27	Level 3 Water Monitoring	2024	Water Opportunity	900 m3/year	N/A	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	90,000,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Planned
28	Mist Sensor Taps Deployment	2024	Water Opportunity	624 m3/year	N/A	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance WASH	2,100,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Planned
29	Water Sprinkler Installation across Factory	2024	Water Opportunity	300 m3/year	N/A	Cultural, Economic	Internal	Medium	Good Water Governance Sustainable Water Balance	2,500,000.00	Long Term	FUM	FUM	ESSM/EHSM/FM	FM	Planned
30	Installation of Filtration Plant in Catchment	2024	Stakeholder Feedback	20,000 Liters/Day	N/A	Social, Cultural	External	High	Good Water Quality Status	10,000,000.00	Long Term	LEX	LEX	Governmental Bodies	Governmental Bodies	Planned

*No site water-related compliance violations since 2019



Water Stewardship Initiatives



Effluent Treatment Plant

12m³/Hr.



ETP Treatment Capacity

combines all elements of the activated sludge purification process into a single compact unit



Treated Water Quality

PH 6-9
BOD < 80 mg
COD < 150mg/L
TSS < 200mg/L



Solar Plates Cleaning



Toilets



Gardening

ALLIANCE FOR WATER STEWARDSHIP



Water Stewardship Initiatives



Enabling Governmental Stakeholders

The site has **shared** the **Hydrological Study Report** of the catchment area with **key governmental Stakeholders** to enable them to take steps to mitigate the water related risks in the area. This initiative is an important step in onboarding the **Key Players** in the catchment.



WATER STEWARDSHIP



Water Stewardship Initiatives



Awareness Session



Education & Awareness

- **AWS Vision & outcomes**
- **Good Water Governance**
- **Sustainable Water Usage**
- **Sanitation & Hygiene**
- **IWRAs Maintenance**
- **Water Quality Issues**



Feedback

- **Stakeholders provided feedback to PTC**
- **Attendees approached the NGO to volunteer**
- **Best Practices and learnings shared**



Collective Effort

- **Collaboration between PTC, NGO and General Public**
- **Pledge to work towards a common goal: Saving Water**

Water Stewardship Initiatives



Awareness Session





Water Stewardship Initiatives



Public Awareness

The site has deployed **Signs & Signages** in the mosques to educate and urge the users to be **mindful of water wastages**.

The signages present **religious references** that **discourage water wastage** to create and impact on the users.



ALLIANCE
WATER STEWARDSHIP

Door to Door Engagements

- › *Education of Private Stakeholders regarding maintenance of catchment IWRAs*
- › *Engagement on identification of best practices in catchment*
- › *Identification of Water Related challenges faced by the Stakeholders*



Collaboration with NGOs – Clean Up Drive

Being a responsible water steward, PTC Jhelum collaborated with We Fixers to execute a **clean-up drive** on the bank of **River Jhelum**.

The Jhelum River is an Important Water Related Area in the catchment and a famous **recreational spot**.

Unfortunately, the maintenance of the IWRA is poor. PTC participated in and enabled the clean-up drive to **spread awareness** regarding **IWRAs maintenance**.



Enabling Water Conservation

Community Mosques are one of the most intensive water consumers. Around **2 liters** of water is used by an average person for **ablution**. This amounts to **~500 liters** of **daily** water usage by each mosque.

The mosques are Important Water Related Areas since they have **high value** for the community from a **religious, and cultural** perspective.

PTC has deployed **water efficient taps** in **four** of the **local mosques**. The aim of the initiative is to raise awareness among the local community regarding the significance of maintaining Important Water Related Areas and reducing water wastages.

The estimated **water savings** from the initiative are **40%**



Identifying & Supporting Drip Irrigation

*PTC visited the Porilla Farmhouse to **appreciate** the **water stewardship efforts** of the owner: Mr. Waseem and to enlighten the workforce regarding the vision of AWS and the possible **best practices** that could be further implemented*

*The site aims to **take learnings** from the owner and **share with other landowners** to replicate the same.*



Tree Plantation

PTC donates **trees** from its nursery to **Governmental Stakeholders** and **General Public** in efforts to drive collective action



700K Saplings
donated in 2022



Enabling Tree Plantation
On green belts & small towns

