



RoU Project Verification Report Form (VR)	
<b>BASIC INFORMATION</b>	
<b>Name of approved UWR Project Verifier / Reference No.</b>	SQAC Certification Pvt. Ltd.
<b>Type of Accreditation</b>	<input checked="" type="checkbox"/> RoU Accreditation UWR <input type="checkbox"/> Water Audit/Water Footprint Expertise
<b>Approved UWR RoU Scopes for Project Verification</b>	Scope 4: Conservation measures taken to recycle and/or reuse water, spent wash, wastewater etc. across or within specific industrial processes and systems, including wastewater recycled/ reused in a different process, but within the same site or location of the project activity. Recycled wastewater used in off-site landscaping, gardening or tree plantations/forests activity are also eligible under this Scope.
<b>Validity of UWR approval of Verifier</b>	April 2022 onwards.
<b>Completion date of this VR</b>	28/10/2024
<b>Title of the project activity</b>	STP Wastewater Recycling and Gainful Reuse by Parul University, Vadodara, Gujarat.
<b>Project reference no.</b>	UWR ID: <b>446</b>
<b>Name of Entity requesting verification service</b>	Parul University, Vadodara, Gujarat & Yojan Solutions Pvt. Ltd.
<b>Contact details of the representative of the Entity,</b>	Dipti Raval – Director

Accredited by 5 Jupiter House, Callera Park, Aldermaston, Reading Berkshire RG7 8NN, United Kingdom (UK).

India Office: Off. No. 4, Fifth Floor, Buildmore Business Park, New Canca Bypass Road, Khorlim, Mapusa, Goa – 403 507



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<b>requesting verification service</b>	Yojan Solutions Pvt. Ltd.
<b>Country where project is located</b>	India.
<b>Applied reference documents used for estimation</b> (approved water data and reference guides under the UWR Rou Standard used)	UWR Rainwater Offset Unit Standard
<b>Project Verification Criteria:</b> Mandatory requirements to be assessed	<input checked="" type="checkbox"/> UWR Standard <input checked="" type="checkbox"/> Applicable Approved Calculations <input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Water Data Sets <input checked="" type="checkbox"/> Do No Harm Test <input checked="" type="checkbox"/> RoU calculations <input checked="" type="checkbox"/> PCNMR <input checked="" type="checkbox"/> No Double Counting <input type="checkbox"/> Others (please mention below)
<b>Project Verification Criteria:</b> Optional requirements to be assessed	<input checked="" type="checkbox"/> Environmental Safeguards Standard and do-no-harm criteria <input checked="" type="checkbox"/> Social Safeguards Standard do-no-harm criteria
<b>Project Verifier's Confirmation:</b> The <i>UWR Project Verifier</i> has verified the UWR project activity and therefore confirms the following:	The UWR RoU Project Verifier SQAC Certification Pvt. Ltd., certifies the following with respect to the UWR Project Activity STP Wastewater Recycling and Gainful Reuse



by Parul University, Vadodara, Gujarat



The Project Owner has correctly described the Project Activity in the PCNMR dated 30/09/2024 including the applicability of the guidance documents and water data as outlined in the UWR RoU Standard, Scope 4 - Conservation measures taken to recycle and/or reuse water, spent wash, wastewater etc. across or within specific industrial processes and systems, including wastewater recycled/ reused in a different process, but within the same site or location of the project activity. Recycled wastewater used in off-site landscaping, gardening or tree plantations/forests activity are also eligible under this Scope.

The Project Activity is likely to generate **11,66,565 RoUs** as indicated in the PCNMR, which are applicable with UWR rules

The Project Activity is not likely to cause any net-harm to the environment and/or society

The Project Activity complies with all the applicable UWR rules and therefore recommends UWR Program to register the Project activity with RoUs.



<b>Project Verification Report, reference number and date of approval</b>	Verification Report UWR Project ID: 446 dated 28/10/2024
<b>Name of the authorised personnel of UWR Project Verifier and his/her signature with date</b>	  Santosh Nair Lead Verifier (Signature) SQAC Certification Pvt Ltd

## PROJECT VERIFICATION REPORT

Yojan Solutions Pvt. Ltd. has contracted SQAC Certification Pvt. Ltd. to carry out the verification of the project activity “STP Wastewater Recycling and Gainful Reuse by Parul University, Vadodara, Gujarat”, UWR approved project ID:446, to establish number of RoUs generated by water project over the monitoring period from **01/10/2022 to 31/07/2024** (01 year, 10 months). The project activity aims to implement a STP Wastewater Recycling for Gainful Reuse.

We believe that the total Rainwater Offset Units or Water Credits (RoU) generated over the monitoring / verification period stated in the Project Concept Note & Monitoring Report (PCNMR), submitted to us is accurate and in line with the UWR guidelines.

The Rainwater Offset Units or Water Credits (RoU) were calculated based on UWR Protocols which draws reference from, UWR Rainwater (RoU) Standard, version 6.1. The verification was done remotely by way of video calls / verification, phone calls and submission of documents for verification through emails as per UWR guidelines.

SQAC is able to certify that the Rainwater Offset Units or Water Credits (RoU) from the project STP Wastewater Recycling and Gainful Reuse by Parul University, Vadodara, Gujarat, India, (UWR ID – 446) for the period 01/10/2022 to 31/07/2024 amounts to **11,66,565 RoUs**

Project Verification team, technical reviewer and approver

### Section B. Project Verification Team

Sr. No.	Role	Last name	First name	Affiliation	Involvement in		
					Doc review	Off-Site inspection	Interviews
1.	Team Leader	Nair	Santosh	n/a	yes	yes	yes
2.	Validator	Nair	Santosh	n/a	yes	yes	yes

### Technical reviewer and approver of the Project Verification report

Sr. No.	Role	Type of resource	Last name	First name	Affiliation
1.	Technical	IR	Shinganapurkar	Praful	SQAC Certification Pvt. Ltd.

	reviewer				
2.	Approver	IR	Shinganapurkar	Praful	SQAC Certification Pvt. Ltd.

### Section C. Means of Project Verification

#### C.1. Desk/document review

As part of the review and validation process, Yojan Solutions Pvt. Ltd. submitted a Project Concept Note & Monitoring Report (PCNMR), Water Calculation Sheet, Operational Log Sheets, Calibration Certificates, Water Lab Test Reports, and additional data provided upon request pertaining to this project for examination to the Lead Verifier. These documents were thoroughly reviewed to ensure compliance with relevant standards and guidelines, and to validate the accuracy and completeness of the information provided.

#### C.2. Off-site inspection

Date of offsite inspection: 24/10/2024			
Sr. No.	Activity performed Off-Site	Site location	Date
1.	Interview conducted over Video call / Telephonic discussions.	Vadodara, Gujarat	24/10/2024
2.	Supporting documents provided before, during, and after the verification.	Vadodara, Gujarat	21/10/2024 till 26/10/2024

#### C.3. Interviews

Sr. No.	Interview			Date	Subject
	Name	Designation	Affiliation		
1	Mr. Madhav Rawal	Incharge	Yogan solutions Pvt. Ltd.	24/10/2024	Site layout, Design Specifications
2	Mr. Kamlesh bhai Patel	Incharge water supply	Parul University, Vadodara, Gujarat	24/10/2024	Site layout, Design Specifications and overview
3	Vinay Barayia	Operator	Parul University, Vadodara, Gujarat	24/10/2024	Operational Logsheets

#### C.4. Sampling approach

Not applicable

#### C.5. Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
<b>Rainwater Offset Units or Water Credits (RoU)</b>			
Identification and Eligibility of project type	Nil	Nil	Nil
General description of project activity	Nil	Nil	Nil
Application and selection of methodologies and standardized baselines			
- Application of RoU methodologies and standardized data sets	Nil	Nil	Nil
- Deviation from methodology and/or methodological tool	Nil	Nil	Nil
- Clarification on applicability of methodology, tool and/or standardized data sets	Nil	Nil	Nil
- Project boundary and unutilized water sources.	Nil	Nil	Nil
- Likely scenario without RoU Project	Nil	Nil	Nil
- Estimation of RoU's	Nil	Nil	Nil
- PCNMR	Nil	Nil	Nil
Start date, crediting period and duration	Nil	Nil	Nil
Positive environmental impacts on water table and/or groundwater recharge and/or water security in the area	Nil	Nil	Nil
Project Owner- Identification and communication	Nil	Nil	Nil
Others (please specify)	Nil	Nil	Nil
<b>Total</b>	Nil	Nil	Nil

**Section D. Project Verification Findings**

**D.1. Identification and eligibility of project type (Approved Project Activities (Positive List))**

<b>Means of Project Verification</b>	<p>Project Documentation: Detailed project reports, including the Project Concept Note &amp; Monitoring Report (PCNMR), outlining the project’s scope, objectives, and outcomes.</p> <p>Off-Site Inspection: Off-Site visit to verify the implementation and operation of the project activities.</p> <p>Data Monitoring: Continuous monitoring and recording of data through operational log sheets related to water recycling and reuse, ensuring compliance with the UWR RoU standards.</p>
<b>Findings</b>	<p>Upon verification, it was found that the project, “STP Wastewater Recycling and Gainful Reuse by Parul University,” is identified as eligible under the UWR RoU program’s Scope 4, which includes conservation measures for recycling and reusing wastewater within specific industrial processes. This project is pre-approved and listed on the positive list of activities, as it effectively treats and reuses wastewater, thereby reducing reliance on freshwater sources and mitigating groundwater depletion. The initiative aligns with sustainable practices and contributes to environmental conservation, making it a model for similar projects.</p>
<b>Conclusion</b>	<p>In conclusion, the project description adheres to the recycling and reuse of wastewater through its Sewage Treatment Plant (STP), is pre-approved under the Universal Water Registry (UWR) RoU program for Scope 4. This scope includes measures that recycle and/or reuse water, spent wash, and wastewater within specific industrial processes and systems, as well as for off-site landscaping, gardening, or tree plantations. The project effectively addresses water conservation, reduces reliance on freshwater sources, and supports groundwater recharge, making it a model for sustainable water management practices.</p>



**D.2. General description of Project Activity**

<p><b>Means of Project Verification</b></p>	<p>Project Documentation: Detailed records of the project activity, including design, implementation, and operational data.</p> <p>Off-Site Inspection: off-site visit to verify the setup and operational status of the project.</p> <p>Monitoring Reports: Periodic reports that track the project’s performance, water recycling rates, and compliance with standards.</p> <p>Stakeholder Feedback: Input from local communities, project staff, and other stakeholders to ensure the project meets its objectives and addresses any concerns</p>
<p><b>Findings</b></p>	<p>Upon verification it was found that the project activity at Parul University in Vadodara, Gujarat, involves the installation and operation of a Sewage Treatment Plant (STP) with a capacity of 3.5 million litres per day (MLD). This STP treats wastewater generated from various campus activities, including process washings, utilities, and domestic usage. The treated water is reused within the campus for purposes such as gardening and toilet flushing, significantly reducing the reliance on freshwater sources and mitigating local groundwater depletion. This initiative not only addresses water conservation but also contributes to groundwater recharge, supporting the local ecosystem and demonstrating a sustainable, resource-efficient approach to water management.</p>
<p><b>Conclusion</b></p>	<p>In conclusion, the project activity at Parul University involves a comprehensive wastewater recycling initiative using a 3.5 MLD Sewage Treatment Plant (STP). This project effectively treats and reuses wastewater generated from various campus activities, significantly reducing reliance on freshwater sources and mitigating groundwater depletion. By implementing advanced treatment technologies, the university ensures the treated water is safe for non-potable</p>

	uses such as gardening and toilet flushing. This initiative not only addresses water scarcity but also promotes sustainable water management practices, serving as a model for other institutions and contributing positively to the local ecosystem
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### D.3. Application and selection of water data and calculation parameters

#### D.3.1 Application of methodology and standardized data sets

<b>Means of Project Verification</b>	<p>Application of Methodology: The project follows a standardized methodology for wastewater recycling and reuse, ensuring consistency and accuracy in data collection and analysis.</p> <p>Standardized Data Sets: Utilizes established data sets for water quality and quantity measurements, ensuring reliability and comparability across different monitoring periods.</p> <p>Verification Process: Involves regular monitoring and reporting, with data verified by independent auditors to ensure compliance with the Universal Water Registry (UWR) standards.</p> <p>Calculation Parameters: Includes specific metrics such as flow rates, water quality indicators, and reuse volumes, measured using calibrated instruments and validated through periodic audits.</p>
<b>Findings</b>	<p>Upon verification, it is found that the application and selection of water data and calculation parameters, such as the application of methodology and standardized data sets, focuses on ensuring accuracy and consistency in water usage reporting. This involves utilizing reliable and validated data sources to measure water consumption and recycling accurately. The methodology is found to be transparent and replicable, allowing for consistent application across different projects. Standardized data sets help in benchmarking performance and identifying areas for improvement. Overall, these practices support sustainable water management by providing a clear framework for monitoring and optimizing water use, ensuring compliance with environmental standards, and promoting resource conservation.</p>

<b>Conclusion</b>	<p>In conclusion, the application and selection of water data and calculation parameters, such as the application of methodology and standardized data sets, emphasizes the importance of using accurate, reliable, and consistent data to ensure the effectiveness and credibility of water management projects. By adhering to standardized methodologies and data sets, such as those outlined by the Universal Water Registry (UWR) RoU Standard, projects can achieve precise quantification of water reuse and conservation efforts. This approach not only enhances the transparency and comparability of results but also supports sustainable water management practices, contributing to broader environmental and community benefits.</p>
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### D.3.2 Clarification on applicability of methodology, tool and/or RoU estimates

<b>Means of Project Verification</b>	<p>Monitoring Reports: Detailed reports documenting the quantity of treated wastewater, its reuse, and compliance with environmental standards.</p> <p>Flow Meters: Installation of flow meters to measure the volume of treated water used, ensuring accurate data collection.</p> <p>Stakeholder Feedback: Engagement with local stakeholders to gather feedback and ensure the project’s positive impact on the community and environment.</p>
<b>Findings</b>	<p>Upon verification, it was found that the document details the STP Wastewater Recycling and Gainful Reuse project by Parul University in Vadodara, Gujarat, which aims to recycle and reuse wastewater to mitigate local water scarcity. The project, operational since July 2022, treats 3.5 million litres of sewage per day, converting it into usable water for gardening and campus facilities, thus reducing reliance on groundwater. The initiative has generated over 1.16 million Rainwater Offset Units (RoUs) during its first monitoring period, aligning with multiple Sustainable Development Goals (SDGs) and showcasing a model for sustainable water management. The</p>

	project employs advanced treatment technologies and emphasizes educational and community engagement, promoting environmental stewardship and resource efficiency.
<b>Conclusion</b>	The conclusion for the clarification on the applicability of methodology, tool, and/or RoU estimates is that the project activity at Parul University effectively demonstrates the use of advanced wastewater recycling technologies to address local water scarcity. By treating and reusing wastewater, the project not only meets regulatory standards but also significantly reduces reliance on freshwater sources, thereby promoting sustainable water management. The methodology and tools applied ensure accurate measurement and monitoring of RoUs, validating the project’s impact on water conservation and environmental protection. This initiative serves as a model for similar projects, highlighting the importance of innovative water management practices in achieving sustainability goals.

### D.3.3 Project boundary sources and RoUs

<b>Means of Project Verification</b>	<p>Flow Meters: Installed at various points to measure the quantity of treated wastewater.</p> <p>Operational Records: Detailed logs of the STP’s daily operations, including inflow and outflow data.</p> <p>Water Quality Tests: Regular testing to ensure treated water meets safety and quality standards.</p>
<b>Findings</b>	<p>Upon verification it was found that the project boundary sources for the STP Wastewater Recycling and Gainful Reuse by Parul University include various campus facilities such as Shakuntala Bhavan, Azad Boys’ Hostel, and Sarojini Bhavan C, which generate wastewater from process washings, utilities, and domestic use. The project successfully treated and reused 1,166,565 RoUs (1 RoU = 1000 liters) of wastewater during the monitored period from October 2022 to July 2024. This initiative significantly reduced the reliance on freshwater sources, mitigated groundwater depletion, and contributed to</p>

	sustainable water management practices on campus
<b>Conclusion</b>	In conclusion, the project boundary sources for the STP Wastewater Recycling and Gainful Reuse by Parul University include various campus facilities generating sewage, such as Shakuntala Bhavan, Azad Boys' Hostel, and Sarojini Bhavan C. The project effectively treats and reuses this wastewater, significantly reducing reliance on freshwater sources and preventing groundwater depletion. Over the monitored period from October 2022 to July 2024, the project generated a total of 1,166,565 Rainwater Offset Units (RoUs), demonstrating a sustainable approach to water management and setting a model for other institutions to follow.

#### D.3.4 Baseline scenario of the water shed or activity prior to project commissioning

<b>Means of Project Verification</b>	<p>Assessment of Groundwater Extraction: Evaluating the extent of groundwater extraction in the absence of the project, which would have involved installing multiple bore wells, leading to the depletion of local groundwater resources.</p> <p>Water Usage Data: Collecting data on water usage from existing sources, such as bore wells or municipal supplies, to establish a baseline for comparison.</p> <p>Environmental Impact Studies: Conducting studies to understand the environmental impact of water extraction and usage prior to the project, including effects on local water bodies and ecosystems.</p> <p>Flow Meter Readings: Using flow meters to measure the quantity of water extracted and used, ensuring accurate baseline data for comparison with post-project scenarios</p>
<b>Findings</b>	Upon verification, it was found that the baseline scenario for the watershed or activity prior to the project commissioning at Parul University involved the potential installation of multiple bore wells within the project boundary. This would have led to the depletion of local groundwater resources and/or the diversion of existing water resources from the surrounding area for campus toilet facilities and gardening. In the absence

	of the project, untreated wastewater would have continued to be discharged, exacerbating water scarcity and environmental degradation in the region. The project activity, therefore, significantly mitigates these issues by recycling and reusing treated wastewater, reducing reliance on freshwater sources, and promoting sustainable water management practices
<b>Conclusion</b>	In conclusion, the baseline scenario for the watershed or activity prior to the project commissioning at Parul University involved the potential installation of multiple bore wells, leading to the depletion of local groundwater resources and/or the diversion of existing water resources from the surrounding area for campus facilities. In the absence of the project, untreated wastewater would have continued to pollute local water bodies, exacerbating water scarcity and environmental degradation. The project activity, by treating and reusing wastewater, significantly mitigates these issues, promoting sustainable water management and conservation.

### D.3.5 Implementation Benefits to Water Security

<b>Means of Project Verification</b>	<p>Water Reuse and Conservation: Verification through flow meters measuring the quantity of treated wastewater reused for non-potable applications like gardening and toilet flushing.</p> <p>Environmental Protection: Compliance with standards set by the Gujarat Pollution Control Board, ensuring treated sewage does not contaminate local water bodies.</p> <p>Improved Campus Infrastructure: Regular monitoring and maintenance records of the STP and associated infrastructure.</p> <p>Educational Opportunities: Documentation of educational programs and student engagement activities related to the STP.</p>
<b>Findings</b>	Upon verification it was found that the implementation of the 3.5 MLD Sewage Treatment Plant (STP) at Parul University significantly enhances water security on campus by enabling the recycling of treated wastewater for non-potable applications such as gardening and toilet

	flushing, thereby conserving valuable freshwater resources. This initiative also protects local water bodies from pollution, supports environmental sustainability, and provides educational opportunities for students to learn about modern wastewater treatment technologies. Additionally, it sets a positive example for the community, encouraging similar sustainable practices and contributing to regional water security efforts.
<b>Conclusion</b>	In conclusion, the implementation of the 3.5 MLD Sewage Treatment Plant (STP) at Parul University significantly enhances water security on campus by enabling the recycling of treated wastewater for non-potable applications such as gardening and toilet flushing. This initiative reduces reliance on freshwater sources, conserves valuable water resources, and supports environmental sustainability. Additionally, it serves as an educational resource for students, promotes community engagement, and sets a model for other institutions to adopt similar sustainable practices, thereby contributing positively to the overall well-being of the surrounding environment and community.

### D.3.6 Estimation of RoUs or net water saved / recycled / reused

<b>Means of Project Verification</b>	<p>Flow Meters: Installed at the site to measure the total quantity of treated water.</p> <p>Operational Days: Assumed to be 330 days per year for conservative estimates.</p> <p>Uncertainty Factor: A 10% uncertainty factor is applied for conservative purposes.</p> <p>Performance Metrics: Regular assessments and feedback mechanisms to evaluate and improve the effectiveness of the STP (Sewage Treatment Plant).</p>
<b>Findings</b>	<p>Upon verification, it was found that the estimation of RoUs (Rainwater Offset Units) for the project at Parul University indicates a significant achievement in water conservation. Over the monitored period from October 2022 to July 2024, the project generated a total of 1,166,565 RoUs, equivalent to 1,166.565 million litres of treated wastewater. This treated water was gainfully reused for non-potable</p>

	<p>applications such as gardening and campus toiletries, effectively reducing the reliance on fresh water sources and mitigating groundwater depletion in the region. The project demonstrates a successful model of sustainable water management and resource efficiency.</p>
<p><b>Conclusion</b></p>	<p>The conclusion for the estimation of RoUs (Rainwater Offset Units) or net water saved/recycled/reused in the project by Parul University highlights the significant impact of their STP (Sewage Treatment Plant) initiative. The project successfully generated approximately 1,166,565 RoUs over the monitored period from October 2022 to July 2024, equating to 1,166.565 million litres of treated water. This treated water was effectively reused for non-potable applications such as gardening and campus toiletries, thereby conserving freshwater resources and mitigating groundwater depletion. The initiative demonstrates a sustainable approach to water management, setting a model for other institutions to follow.</p>



### D.3.7 PCN+Monitoring Report

<p><b>Means of Project Verification</b></p>	<p>Flow Meters: Measurement of treated water quantity via flow meters to ensure accuracy in reporting the volume of recycled water.</p> <p>Water Quality Testing: Regular testing of treated water to confirm it meets safety and quality standards for reuse.</p> <p>Operational Logs: Detailed logs of the STP operations, including maintenance records and performance metrics.</p> <p>Off-Site Inspections: Remote inspection to verify the infrastructure and operational status of the STP.</p>
<p><b>Findings</b></p>	<p>Upon verification, the Project Concept Note &amp; Monitoring Report (PCNMR) for the STP Wastewater Recycling and Gainful Reuse project by Parul University highlights significant achievements. The project successfully recycled and reused 1,166,565 RoUs (1 RoU = 1000 litres) of wastewater over the monitored period from October 2022 to July 2024. This initiative has substantially reduced the reliance on freshwater sources, mitigated groundwater depletion, and contributed to local water security. Additionally, the project aligns with multiple Sustainable Development Goals (SDGs), including clean water and sanitation, sustainable cities, and climate action, showcasing Parul University's commitment to environmental sustainability and resource efficiency.</p>
<p><b>Conclusion</b></p>	<p>The conclusion of the Project Concept Note &amp; Monitoring Report (PCNMR) for the STP Wastewater Recycling and Gainful Reuse project by Parul University highlights the university's commitment to sustainable water management. By implementing a 3.5 MLD Sewage Treatment Plant, the project has successfully recycled significant amounts of wastewater, reducing reliance on freshwater sources and mitigating groundwater depletion. This initiative not only addresses local water scarcity but also serves as a model for other institutions, demonstrating effective resource management and</p>

	environmental stewardship. The project aligns with multiple Sustainable Development Goals (SDGs), contributing to cleaner urban environments and promoting responsible consumption and production practices.
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### D.3.8 National Water Security Index

<b>Means of Project Verification</b>	<p>Water Availability: Measurement of per capita water availability and the sustainability of water resources.</p> <p>Water Quality: Assessment of water quality parameters, including contamination levels and compliance with safety standards.</p> <p>Water Use Efficiency: Evaluation of water use efficiency across different sectors, such as agriculture, industry, and domestic use.</p> <p>Water Governance: Analysis of policies, regulations, and institutional frameworks governing water resources.</p>
<b>Findings</b>	<p>Upon verification, it was found that the National Water Security Index for India, as mentioned in the PCNMR is 2. This index indicates the country's overall water security status, reflecting various factors such as water availability, quality, and management practices. The document highlights the importance of projects like the STP Wastewater Recycling by Parul University in improving water security by reducing reliance on freshwater sources and promoting sustainable water management practices.</p>
<b>Conclusion</b>	<p>The National Water Security Index for India, as mentioned in the PCNMR is 2. This index reflects the country's overall water security status, considering factors like water availability, quality, and management practices. The conclusion drawn from this index is that India faces significant challenges in ensuring sustainable water management and needs to implement effective conservation and recycling measures to improve its water security. The project by Parul University is a step in the right direction, showcasing how wastewater recycling can contribute to better water management and sustainability.</p>

### D.3.9 Start date, crediting period and duration

<p><b>Means of Project Verification</b></p>	<p>Project Documentation: Official records and documents detailing the project’s initiation, including the commissioning date and operational timelines.</p> <p>Monitoring Reports: Regularly updated reports that track the project’s progress, water recycling volumes, and compliance with the UWR RoU standards.</p> <p>Flow Meter Data: Data from flow meters installed at the site to measure the quantity of treated wastewater reused, ensuring accurate tracking of water usage.</p>
<p><b>Findings</b></p>	<p>Upon verification, the project activity at Parul University commenced on 09/07/2022, with the crediting period spanning from 01/10/2022 to 31/07/2024. This duration of 1 year and 10 months reflects the university’s commitment to sustainable water management through the recycling and reuse of wastewater. The project has successfully generated 1,166,565 Rainwater Offset Units (RoUs) during this period, demonstrating significant environmental impact and resource efficiency.</p>
<p><b>Conclusion</b></p>	<p>The project “STP Wastewater Recycling and Gainful Reuse by Parul University” commenced on October 1, 2022, with the first crediting period spanning from October 1, 2022, to July 31, 2024, covering a duration of 1 year and 10 months. During this period, the project successfully generated 1,166,565 Rainwater Offset Units (RoUs), demonstrating significant progress in water conservation and sustainable practices.</p>

### D.3.10 Positive Environmental impacts

<p><b>Means of Project Verification</b></p>	<p>Water Quality Monitoring: Regular testing of treated wastewater to ensure it meets environmental and regulatory standards.</p> <p>Flow Meter Readings: Measuring the quantity of treated water reused for non-potable applications like gardening and flushing.</p> <p>Sludge Management Records: Documenting the disposal and repurposing of sludge as organic manure.</p> <p>Environmental Impact Assessments (EIA): Conducting periodic EIAs to evaluate the project’s impact on local water bodies and ecosystems.</p>
<p><b>Findings</b></p>	<p>Upon verification, the STP Wastewater Recycling and Gainful Reuse project by Parul University demonstrates significant positive environmental impacts. The project effectively reduces reliance on freshwater sources by recycling treated wastewater for non-potable uses such as gardening and toilet flushing. This initiative conserves millions of litres of freshwater annually, alleviating pressure on local groundwater reserves. Additionally, the project prevents pollution by ensuring that treated effluent meets safety standards before reuse, thus protecting local water bodies and ecosystems. The university’s commitment to sustainable water management practices serves as a model for other institutions, promoting broader adoption of environmentally responsible initiatives.</p>
<p><b>Conclusion</b></p>	<p>In conclusion, the project at Parul University demonstrates significant positive environmental impacts by effectively recycling and reusing wastewater, which conserves freshwater resources and reduces groundwater depletion. The initiative mitigates local water scarcity, supports groundwater recharge, and prevents pollution of natural water bodies. By treating 3.5 million liters of sewage daily, the project not only addresses immediate water management challenges but also promotes sustainable</p>

	practices that can be replicated by other institutions. This comprehensive approach enhances the local ecosystem, contributes to water security, and sets a benchmark for environmental stewardship in the region.
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### D.3.11 Project Owner- Identification and communication

<b>Means of Project Verification</b>	<p>Identification: The project owner, Parul University, is identified through detailed project information, including the project name, location, and scope. The university’s role and responsibilities in the project are clearly defined.</p> <p>Communication: Regular monitoring reports and project documentation are prepared and communicated. These include data on water usage, treatment processes, and the impact on local water resources. The project owner also engages with stakeholders through reports and updates.</p>
<b>Findings</b>	<p>Upon verification it was found that, the project owner, Parul University, has effectively identified and communicated the critical aspects of their STP Wastewater Recycling and Gainful Reuse project. They have demonstrated a strong commitment to sustainable water management by implementing advanced treatment technologies and ensuring the treated wastewater is reused for non-potable purposes such as gardening and campus toiletries. This initiative not only conserves freshwater resources but also sets a precedent for other institutions. The university’s transparent communication of project details, including the environmental benefits and alignment with Sustainable Development Goals (SDGs), highlights their leadership in promoting sustainable practices and community well-being.</p>
<b>Conclusion</b>	<p>In conclusion, the project at Parul University in Vadodara, Gujarat, demonstrates a successful implementation of a 3.5 MLD Sewage Treatment Plant (STP) that effectively recycles wastewater for non-potable uses such as gardening and toilet flushing. This initiative significantly reduces reliance on freshwater sources, conserves local</p>

	<p>groundwater, and promotes sustainable water management practices. By treating and reusing wastewater, the university not only addresses water scarcity but also sets a model for environmental stewardship and community leadership, contributing positively to regional water security and sustainability goals.</p>
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**D.3.12 Positive Social Impact/Ecological Aspects/Recharge Aspects**

<b>Means of Project Verification</b>	<p>Water Quality Testing: Regular testing of treated wastewater to ensure it meets safety and environmental standards.</p> <p>Usage Monitoring: Tracking the volume of recycled water used for non-potable purposes like gardening and flushing.</p> <p>Environmental Impact Assessments: Conducting periodic assessments to evaluate the project’s impact on local ecosystems and groundwater levels.</p> <p>Community Feedback: Gathering feedback from students, staff, and local residents on the project’s benefits and any areas for improvement.</p>
<b>Findings</b>	<p>Upon verification, the project activity at Parul University demonstrates significant positive social and ecological impacts. The STP initiative effectively addresses water scarcity by recycling wastewater for non-potable uses, conserving freshwater resources, and enhancing local water security. It promotes environmental protection by preventing untreated sewage discharge, thus safeguarding local ecosystems. Additionally, the project serves as an educational resource, fostering awareness and engagement in sustainable practices among students and the community. By avoiding the use of borewells, it prevents groundwater depletion, contributing to the sustainable management of natural resources and setting a model for other institutions.</p>
<b>Conclusion</b>	<p>In conclusion, the project at Parul University demonstrates</p>

	<p>a significant positive social impact by enhancing water security and promoting sustainable practices. The advanced STP system effectively recycles wastewater, reducing reliance on freshwater sources and mitigating groundwater depletion. This initiative not only supports environmental conservation but also serves as an educational resource, fostering awareness and engagement in sustainable water management among students and the local community. The implementation of artificial recharge structures further contributes to groundwater replenishment, ensuring long-term ecological balance and resilience against water scarcity. Overall, the project exemplifies a comprehensive approach to sustainable development, benefiting both the environment and society.</p>
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**D.3.13 Sustainable development aspects**

<b>Means of Project Verification</b>	<p>Water Reuse and Conservation: Monitoring the quantity of treated wastewater reused for non-potable applications like gardening and toilet flushing.</p> <p>Environmental Protection: Ensuring treated sewage meets Gujarat Pollution Control Board standards to prevent contamination of local water bodies.</p> <p>Educational Opportunities: Providing practical learning resources and awareness programs on water conservation for students.</p> <p>Community Impact: Demonstrating effective wastewater treatment and reuse strategies to inspire similar initiatives in local communities.</p>
<b>Findings</b>	<p>Upon verification, the project at Parul University demonstrates significant contributions to sustainable development. The STP wastewater recycling initiative aligns with multiple Sustainable Development Goals (SDGs), including SDG 3 (Good Health and Well-being) by reducing water pollution and associated health risks, SDG 4 (Quality Education) through educational programs on sustainability,</p>

	<p>SDG 6 (Clean Water and Sanitation) by enhancing water conservation, SDG 11 (Sustainable Cities and Communities) by reducing urban pollution, SDG 12 (Responsible Consumption and Production) by promoting water reuse, and SDG 13 (Climate Action) by improving climate resilience through responsible water management. This project sets a precedent for sustainable practices in educational institutions.</p>
<p><b>Conclusion</b></p>	<p>In conclusion, the project at Parul University exemplifies a comprehensive approach to sustainable water management by effectively recycling and reusing wastewater, significantly reducing reliance on freshwater sources. This initiative not only addresses local water scarcity but also promotes environmental protection, educational opportunities, and community leadership. By integrating advanced treatment technologies and sustainable practices, the university sets a model for other institutions, contributing to broader water security and environmental sustainability goals.</p>

**Section E. Internal Quality Control**

During the verification of this project, internal quality control measures were rigorously applied to ensure the accuracy and reliability of the verification process. This included regular internal reviews of verification procedures, documentation, and reports to identify and rectify any errors or inconsistencies. Verification staff underwent continuous training and competency development to ensure proficiency in conducting verifications effectively. Standard Operating Procedures (SOPs) were established to outline clear steps for data collection, analysis, and reporting, promoting consistency and adherence to best practices. Comprehensive documentation management practices were implemented to maintain transparent records of verification activities, including data sources and methodologies used. Peer reviews and discussions among verification team members were facilitated to validate findings and ensure consensus on conclusions. Continuous improvement processes were in place to monitor and evaluate verification practices, identifying areas for enhancement and optimizing performance over time.



## Section F. Project Verification Opinion

The Project Verification Opinion for the STP Wastewater Recycling and Gainful Reuse project by Parul University would likely focus on the following key points:

**Compliance with UWR RoU Standards:** The project adheres to Scope 4 of the UWR RoU standards, ensuring that wastewater is effectively recycled and reused within the campus.

**Environmental Impact:** The project significantly reduces reliance on freshwater sources and mitigates groundwater depletion, contributing positively to local water security.

**Sustainable Practices:** By treating and reusing wastewater, the project supports sustainable water management and aligns with multiple Sustainable Development Goals (SDGs).

**Operational Efficiency:** The STP employs advanced treatment technologies and has demonstrated effective performance in recycling wastewater for non-potable uses.

This opinion would affirm the project's success in meeting its environmental and sustainability objectives.

In our opinion, the total RoU's over the crediting / verification period stated in the Project Concept Note and Monitoring Report, PCNMR submitted to SQAC are found to be correct and in line with the UWR guidelines.

The verification was done remotely by way of video calls / verification, phone calls and submission of documents for verification through emails.

SQAC is able to certify that the RoU's from the STP Wastewater Recycling and Gainful Reuse by Parul University, Vadodara, Gujarat, India, (UWR ID – 446) for the period **01/10/2022 to 31/07/2024** amounts to **11,66,565 RoUs**

### Appendix 1. Abbreviations

Abbreviations	Full texts
UWR	Universal Water Registry
PP/PO	Project Proponent / Project Owner

PA	Project Aggregator
ROUs	Rainwater offset Units.
SDG	Sustainable Development Goal
CAR	Corrective Action Request
CR	Clarification Request
FAR	Forward Action Request
PCNMR	Project Concept Note & Monitoring report
VR	Verification Report
VS	Verification Statement
COD	Commercial Operation Date

## Appendix 2. Competence of team members and technical reviewers

Sr. No.	Role	Name	Education Qualification	Related Experience
1.	Team Leader / Lead Verifier / Validator	Santosh Nair	BE (Chemical) Lead Auditor in ISO 9001,14001, 45001,13485,22301 ,22000,27001,1406 4-1,2,3	Water Verifier for all UWR RoU Program sectoral scopes such as Scope 1, 2, 3, 4 & 5.
2.	Technical reviewer	Praful Shinganapurkar	BE (Mechanical) Certified Energy Auditor Lead Auditor in ISO 9001,14001 & 45001	Water Verifier for all UWR RoU Program sectoral scopes such as Scope 1, 2, 3, 4 & 5.

## Appendix 3. Document reviewed or referenced

Sr. No.	Author	Title	Provider
1.	Maverik Inc.	PCNMR	Maverik Inc.
2.	Maverik Inc.	Water Calculation Sheet	Maverik Inc.
3.	Flowtech Measurement Instruments Pvt. Ltd.	Calibration certificates of Electromagnetic Flow Meter	Maverik Inc.
4.	Aczet	Calibration certificates of Electronic Balance	Maverik Inc.
5.	Parul University, Vadodara, Gujarat	Operating Logbooks	Maverik Inc.

6.	Parul University, Vadodara, Gujarat	Water Lab Test Report	Maverik Inc.
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**Appendix 4. Clarification request, corrective action request and forward action request**

Table 1. CLs from this Project Verification

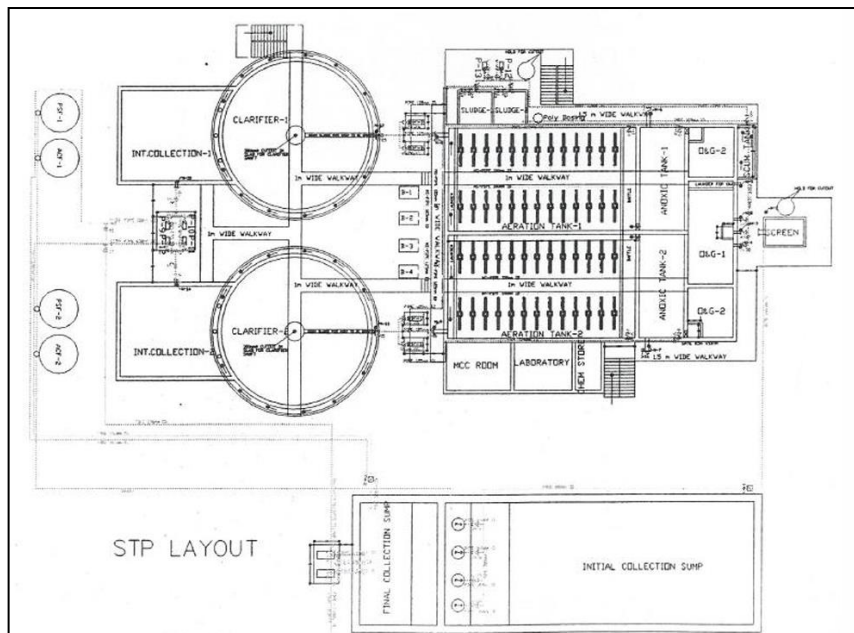
<b>CL ID</b>	00	<b>Section no.</b>		<b>Date:</b>
<b>Description of CL :</b>				
<i>n/a</i>				
<b>Project Owner's response</b>				<b>Date:</b>
<i>n/a</i>				
<b>Documentation provided by Project Owner</b>				
<i>n/a</i>				
<b>UWR Project Verifier assessment</b>				<b>Date:</b>
<i>n/a</i>				

Table 2. CARs from this Project Verification

<b>CAR ID</b>	00	<b>Section no.</b>		<b>Date:</b>
<b>Description of CAR</b>				
<i>n/a</i>				
<b>Project Owner's response</b>				<b>Date:</b>
<i>n/a</i>				
<b>Documentation provided by Project Owner</b>				
<i>n/a</i>				
<b>UWR Project Verifier assessment</b>				<b>Date:</b>
<i>n/a</i>				

Table 3. FARs from this Project Verification

<b>FAR ID</b>	Nil	<b>Section no.</b>		<b>Date:</b>
<b>Description of FAR</b>				
<i>n/a</i>				
<b>Project Owner's response</b>				<b>Date:</b>
<i>n/a</i>				
<b>Documentation provided by Project Owner</b>				
<i>n/a</i>				
<b>UWR Project Verifier assessment</b>				<b>Date:</b>
<i>n/a</i>				



**FLOWTECH MEASURING INSTRUMENTS PVT. LTD.**  
AN ISO 9001:2015 COMPANY  
Plot No. 9002/08, G.D.C., Makarpura, Vadodra - 390 010, Gujarat - INDIA  
☎ 84807 69988 / 94289 76496 / 70189 43517  
✉ flowtech01@gmail.com, flowtechinstruments@yahoo.com  
🌐 flowtech-instruments.com

**Calibration Certificate Of Electromagnetic Flow Meter**

<b>Project Name</b>	---		
<b>Client Name</b>	SHIVAM ENVIROQUIP	<b>P.O. No.</b>	Verble
<b>Address</b>	306-307 DWARKESH COMPLEX, SUN PHARMA-ATLADARA ROAD,VADODARA-390020,GUJARAT	<b>P. O Date</b>	Verble
<b>Certificate No.</b>	FMIP/EMFM/2022-23/3731	<b>Sr. No.</b>	3731
<b>Date of Test</b>	10/03/2022	<b>Due Date</b>	09/03/2023
<b>Model No.</b>	EMFM-F-C-RL-EL1-AC1-M-I-300	<b>Calibration Range</b>	127.17-1271.7 M3/Hr.
<b>Power Supply</b>	230 V AC	<b>Out Put</b>	4-20 mA
<b>Line Size</b>	300 NB	<b>Op.Pressure</b>	---
<b>Electrodes</b>	SS 316	<b>Liner</b>	Hard Rubber
<b>Hydro Test</b>	16 Kg/Cm2 For 5 Min	<b>Op.Temp.</b>	---

**Calibration Method (Gravimetric Method)**  
The Electromagnetic Flow Meter is Calibrated By ISO 4185:1980 "Measurement of Liquid flow in closed conduit using weighing Method"

Details Of Master					
<b>Standard Instrument Name</b>	<b>Make</b>	<b>Model</b>	<b>Calibrated By</b>	<b>Certificate No.</b>	<b>Valid up to</b>
Electromagnetic Flow Meter	Endress+Hauser	Promag 300	Aarohi Embedded Systems Pvt.Ltd	AES/FL/23-24/154	31/12/2024

**Calibration Formula**  
1. % deviation = |(QM-QR)/Full Scale|\*100

Calibration Results			
Sr.No.	Master Reading (Q <sub>M</sub> ) M <sup>3</sup> /Hr	Flow Meter Reading (Q <sub>R</sub> ) M <sup>3</sup> /Hr	Deviation %
1	63.58	53.65	+0.78
2	127.20	117.66	+0.75
3	190.25	181.27	+0.71
4	254.34	245.66	+0.68

Note:- Accuracy of the Flow Meter is Within (+/-) 1.0% of FSD

For, Flowtech Measuring Instruments Pvt.Ltd.  
  
 Dipen Patel  
 Calibrated By

- ELECTROMAGNETIC FLOWMETERS
- ROTAMETERS
- ORIFICE FLANGE ASSEMBLY

- LEVEL INDICATORS
- DIESEL FLOWMETERS
- REFLEX LEVEL GAUGES

- LEVEL SWITCHES (FLOAT / DISPLACER)
- SIGHT FLOW INDICATORS (SIGHT GLASSES)
- MANOMETERS

**FLOWTECH MEASURING INSTRUMENTS PVT. LTD.**  
AN ISO 9001:2015 COMPANY  
Plot No. 9002/08, G.D.C., Makarpura, Vadodra - 390 010, Gujarat - INDIA  
☎ 84807 69988 / 94289 76496 / 70189 43517  
✉ flowtech01@gmail.com, flowtechinstruments@yahoo.com  
🌐 flowtech-instruments.com

**Calibration Certificate Of Electromagnetic Flow Meter**

<b>Project Name</b>	---		
<b>Supplier Name</b>	SHIVAM ENVIROQUIP	<b>P.O. No.</b>	Verble
<b>Contractor</b>	306-307 DWARKESH COMPLEX, SUN PHARMA-ATLADARA ROAD,VADODARA-390020,GUJARAT	<b>P. O Date</b>	Verble
<b>Certificate No.</b>	FMIP/EMFM/2022-23/3732	<b>Sr. No.</b>	3732
<b>Date of Test</b>	10/03/2022	<b>Due Date</b>	09/03/2023
<b>Model No.</b>	EMFM-F-C-RL-EL1-AC1-M-I-300	<b>Calibration Range</b>	127.17-1271.7 M3/Hr.
<b>Power Supply</b>	230 V AC	<b>Out Put</b>	4-20 mA
<b>Line Size</b>	300 NB	<b>Op.Pressure</b>	---
<b>Electrodes</b>	SS 316	<b>Liner</b>	Hard Rubber
<b>Hydro Test</b>	16 Kg/Cm2 For 5 Min	<b>Op.Temp.</b>	---

**Calibration Method (Gravimetric Method)**  
The Electromagnetic Flow Meter is Calibrated By ISO 4185:1980 "Measurement of Liquid flow in closed conduit using weighing Method"

Details Of Master					
<b>Standard Instrument Name</b>	<b>Make</b>	<b>Model</b>	<b>Calibrated By</b>	<b>Certificate No.</b>	<b>Valid up to</b>
Electromagnetic Flow Meter	Endress+Hauser	Promag 300	Aarohi Embedded Systems Pvt.Ltd	AES/FL/23-24/154	31/12/2024

**Calibration Formula**  
1. % deviation = |(QM-QR)/Full Scale|\*100

Calibration Results			
Sr.No.	Master Reading (Q <sub>M</sub> ) M <sup>3</sup> /Hr	Flow Meter Reading (Q <sub>R</sub> ) M <sup>3</sup> /Hr	Deviation %
1	63.34	53.88	+0.74
2	127.87	117.23	+0.84
3	190.55	181.34	+0.72
4	254.72	245.48	+0.73

Note:- Accuracy of the Flow Meter is Within (+/-) 1.0% of FSD

For, Flowtech Measuring Instruments Pvt.Ltd.  
  
 Dipen Patel  
 Calibrated By

- ELECTROMAGNETIC FLOWMETERS
- ROTAMETERS
- ORIFICE FLANGE ASSEMBLY

- LEVEL INDICATORS
- DIESEL FLOWMETERS
- REFLEX LEVEL GAUGES

- LEVEL SWITCHES (FLOAT / DISPLACER)
- SIGHT FLOW INDICATORS (SIGHT GLASSES)
- MANOMETERS

**PARUL AROGYA SEVA MANDAL**  
 DEPARTMENT OF CIVIL (ESTATE)

3/2

Ref: PU / ED / MD / 21-22 / 462      Date :- 26/05/2021

To,  
**PRSHANT R SHAH**  
 B-3 Ami Society  
 DiwaliPura, O P Road  
 Vadodra  
 9998008707

Sub/Work Order Of Construction Of 3.5MLD Sewage Treatment Plant For sump collection  
 Ref: As Per Your Quotation Ref

Dear Sir,  
 We are pleased to place order as under

Sr. No.	Description	Qty.	Amount
1	ANNEXURE (1) Attached	Section A to E	1,01,71,788.00
		<b>SUB TOTAL</b>	<b>1,01,71,788.00</b>
	Site: Parul University, At & Po: Limda Tal: Waghodia, Dist: Vadodra,	<b>GST 18%</b>	<b>18,30,921.84</b>
		<b>TOTAL</b>	<b>1,20,02,709.84</b>

The order terms and conditions are as under:  
 F.O.R : Free Delivery to Our Institute, P.O.Limda, Ta. Waghodia, Dist. Vadodra.  
 Payment : Within 30 Days from material delivery  
 Tax : GST @ 18 %

Thanking you,  
 Yours faithfully,

UNIVERSITY ENGINEER  
 BY, PARUL UNIVERSITY

ESTATE MANAGER

PRESIDENT

Vill : Limda, Tal : Waghodia, Dist : VADODARA - 391 760.  
 Contact No : 02668 - 260910, Mail : pasmestate@yahoo.com

**ACZET PVT. LTD.**  
ACZET HOUSE  
UNIT NO. 04, PLOT NO. 11, WICKEL ESTATE,  
OPP. SEEPZ GATE NO. 1, ANCHERI (E), MUM. 400093.

**CALIBRATION/QUALITY ASSURANCE REPORT**  
Test Report

<b>Brand Name</b>	ACZET	<b>Customer</b>	Krishna Surgical Co
<b>Scale Type</b>	ELECTRONIC BALANCE	<b>Date</b>	14/04/2023
<b>Model No.</b>	CG 20H	<b>Place Of Installation</b>	
<b>Sr. No.</b>	230276	<b>Due Date</b>	13/04/2024
<b>Capacity</b>	200gm	<b>Calibration Type</b>	External
<b>Repeatability</b>	0.001gm	<b>Certificate no.</b>	0
<b>Pan Size</b>	50mm	<b>Operating Temp.</b>	15.7±0.5

**REASON FOR COMPLETING THE TEST REPORT**

New Installation     Repair     Stable     Unstable  
 Service / Maintenance     QC     Air Condition     Stone Stable

**ECCENTRICITY TEST**

Position	Displayed Value (g)	Deviation(g)
A	100.000	0.000
B	100.001	0.001
C	99.999	-0.001
D	100.000	0.000
E	100.000	0.000

**REPEATABILITY TEST**

Test Wt(g)	Displayed Value (g)	Deviation(g)
50g	50.000	0.000
10g	10.000	0.000
5g	5.000	0.000
1g	1.000	0.001

**CALIBRATION LINEARITY**

Test Wt(g)	Displayed Value(g)	Deviation (g)
5.000	5.000	0.000
10.001	10.001	0.001
20.000	20.000	0.000
49.999	49.999	-0.001
100.000	100.000	0.000

**X1 - STANDARD DEVIATION**

Test Wt.	Displayed Value(g)	Deviation(g)
1	199.999	-0.001
2	200.000	0.000
3	200.001	0.001

Note :-  
 1. Please put the weight on the middle of the pan for accurate weight.  
 2. Use 1% weight of the capacity for corner load test.  
 3. Stability time - 6 to 8 seconds.

Remarks :- BALANCE WORKING SATISFACTORILY

Sweta

ENVIRONMENTAL AUDIT LAB, PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY,  
PARUL UNIVERSITY, VADODARA  
Report For STP, Parul University.

Date:	11/11/2022 & 21/11/22
Company Name:	Sewage Treatment Plant, Parul University
Address:	Post Limda, Waghodia, Gujarat 391760
Name of person met with sign	
Mobile number	
E-mail id	
1 Water samples	-
2 Effluent samples	Results enclosed in Table-1.0
7 Observations/Comments	-

*Shivam*  
25/11/22

1. DETAILS OF QUALITY TRADE EFFULENT

Date of Collection: 11/11/2022  
Mode of Collection: Grab

Sr. No.	Parameters	INLET OF STP mg/lit	SECONDARY CLF-1 mg/lit	SECONDARY CLF-2 mg/lit	OUTLET OF STP mg/lit	GPCB Norms mg/lit
1.	pH	7.4	7.8	7.8	7.9	6 to 9
2.	TSS	64	32	26	58	100
3.	TDS	1236.8	1247	1227	1191.5	-
4.	BOD	32	23	22	18	100
5.	COD	100	60	50	80	250

Date of Collection: 21/11/2022  
Mode of Collection: Grab

Sr. No.	Parameters	INLET OF STP mg/lit	SECONDARY CLF-1 mg/lit	SECONDARY CLF-2 mg/lit	OUTLET OF STP mg/lit	GPCB Norms mg/lit
1.	pH	7.8	7.6	7.5	7.2	6 to 9
2.	TSS	56	46	35	25	100
3.	TDS	1240	1199	1180	1098	-
4.	BOD	46	38	36	12	100
5.	COD	122	105	62	51	250

Note:  
1. All results are expressed in mg/liter except pH, BDL: Below Detection Limit

*Shivam*  
25/11/22

Company Name: Sewage Treatment Plant, Parul  
Post Limda, Waghodia, Gujarat  
Contact Person: Name:  
Number:

Details of Water and Wastewater Samples:

Sr. No.	Location	Parameters
1	Inlet of STP	As per Requirement
2	Secondary CLF-1	As per Requirement
3	Secondary CLF-2	As per Requirement
4	Outlet of STP	As per Requirement
Total Location:		4

Sampling Charges: (Grab Sampling)

	Charges	No. of Samples	First Visit
1st Sample:	960	0	0
2nd Sample onwards:	440	0	0

Parameterwise Analysis Charges:

Sr. No	Parameter	Rate	No. of Sample	Total- 11/11/2022	Total- 25/11/2022
1	pH	110.00	4	440	440
2	Total Suspended Solids	180.00	4	720	720
3	BOD (5 days@27°C)	1050.00	4	4200	4200
4	COD	620.00	4	2480	2480
5	TDS	180.00	4	720	720
Total Parameterwise Analysis Charges:				8560	8560.00
				Total	17120.00

GST 0.00  
Grand Total 17120.00

*Shivam*  
25/11/22

SHIVAM ENVIROQUIP (TREATMENT PLANT & MONITORING EQUIPMENTS) No. 107 DR. ARVIND COMPLEX, SUN PLEASURA, AT: ADARA BIAH, TILAKDA VADODRA (NEAR INDA PINK) - 39-20-10152, MO: 9048516, 9048516, 9048516, 9048516, 9048516, 9048516, E-Mail: shivamenviroquip@gmail.com, shivamenviroquip.com		COMMISSIONING REPORT	
Shivam Representative: Mr. Yogesh Jadhav, Sr. Arvind Parul, Mr. Bharatbhai, Vinayshah		Client Name	Parul Aranya Seva Mandal
Jhendra Bhavsani, Rohan Barotkar, Manoj Barotkar, Rajesh Surwade		Plant Details	J.S. JLD STP
		Address	Waghodia
		PO Number	PU/ED/HR/21-23/563
		Invoice Number	GS/145/2022-22
		Commissioning Date	09-07-2022
POINT DESCRIPTION	REPRESENTATIVE	TARGET DATE	REMARKS
Startup of STP			
Started STP @ 160 KL/HR Flow			
Sewage Pumped from Collection to Rotary Screens			
Aeration Process Checked with Sewage in Aeration Tank			
Recirculation started in Aeration Tank			
Fixed by gravity taken in Clarifier Tank from Aeration Tank			
Treated Water Collected to Intermediate Tank (Filter)			
Final Polishing of Treated Water done with PSI-ACF			
Mechanical items checked for any defects.			
Training given to Parul Personnel			
Customer Signature & Date		Shivam Representative Sign with Name & Date	

*Shivam*  
25/11/22

*Shivam*  
25/11/22