YACHIYO Engineering

Confidential

Company Profile

Yachiyo Engineering

Jan, 2026

八千代エンジニヤリング株式会社

Company Outline

＋200

Million USD for sales

＋1,300

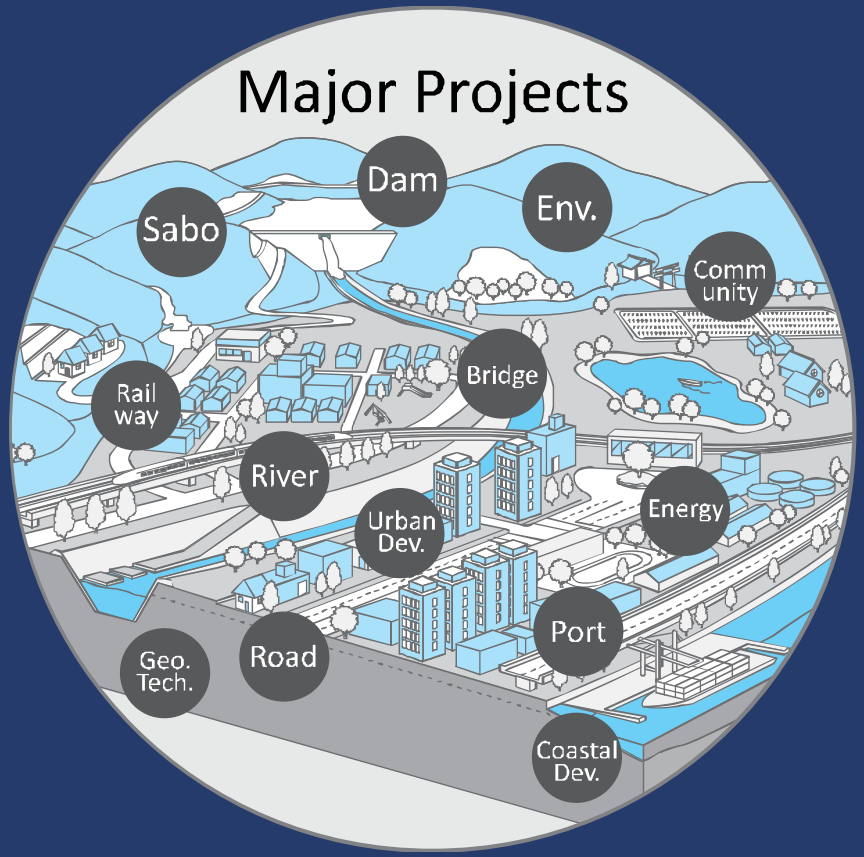
Experts in-house

Tokyo, Japan

Head Office

Global Branch

Our Business Domains



Business Domains

Transportation Infrastructure	Urban & Community Dev.	National Land Management
ICT		
Project Management		
Operation & Maintenance		
Environment & Energy		
Mechanical Engineering		
Geotechnical Engineering		

Core Domain　Cross Cutting Domain

YACHIYO Engineering

Achievement

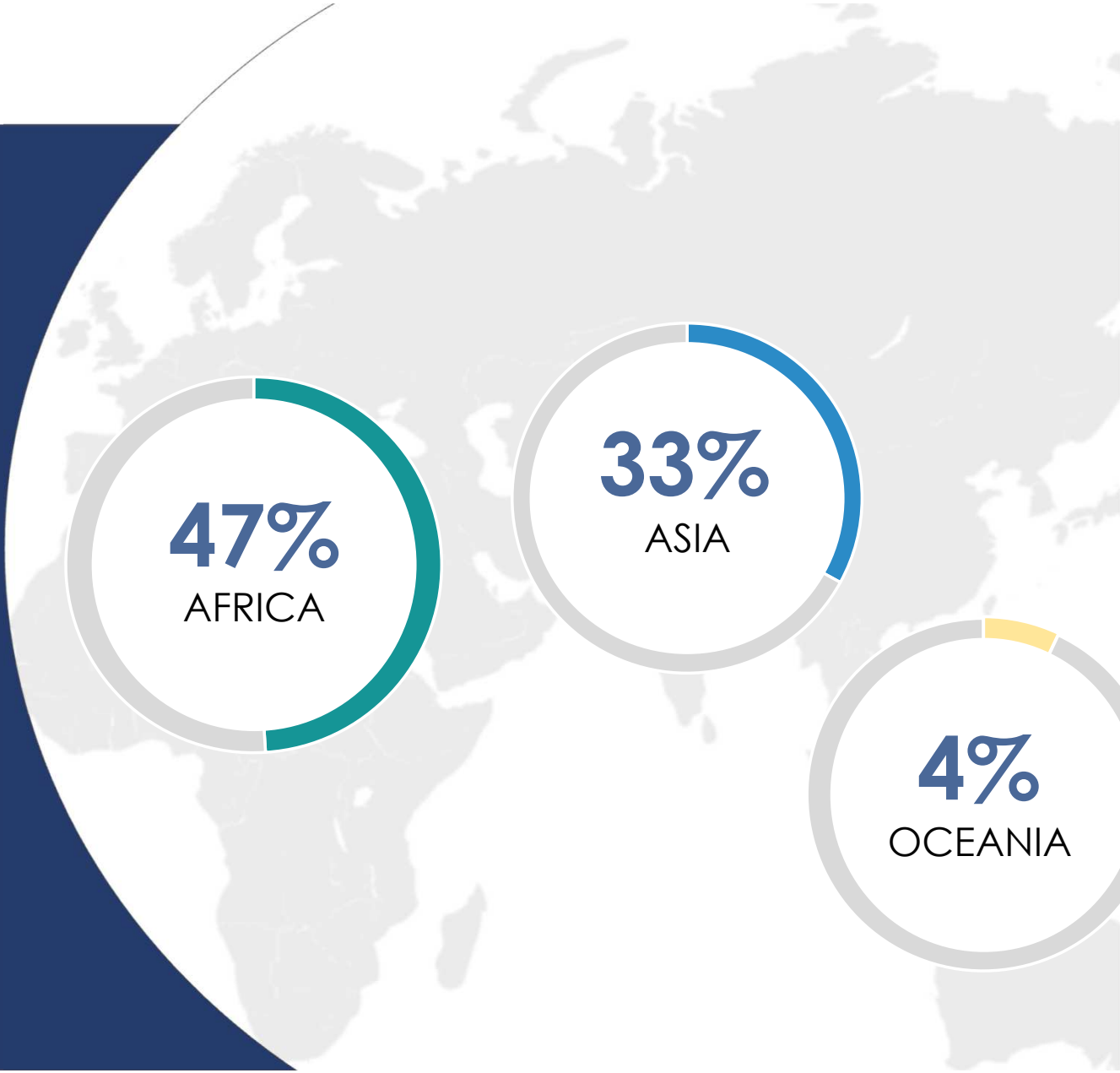
＋150 countries

Project Experience

Funded by

JICA, ADB, World Bank

Shifting
ODA → non-ODA



Organization : International Division

Director General
Executive Officer

GM 1

Energy
- Substation, transmission, distribution
- Renewable Energy

ICT
- Telecommunications
- Cyber Security

Water Supply and sewer
- Water Supply
- Wastewater infrastructure
- Non-revenue water

Solid Waste Management
- Waste treatment facilities
- Waste to Energy

GM 2

Environmental & Geotech
- Integrated Water Resources Management
- Carbon Credits

Disaster Management
- Disaster Prevention (flood, sediment, volcanoes)

Construction Mngmt
- Construction supervision
- Procurement and export of equipment and materials

Urban Planning
- Urban & Regional
- Support for Enterprises' Overseas Business

GM 3

Social Infrastructure
- Roads and bridges
- Transportation

Architecture
- Schools, Laboratories, Hospitals

Total 126 engineers

Tsunoshima Bridge

Yokohama Station East Exit Redevelopment

Arakawa Downstream Super Levee

21st Century Future Expo
Design of the Yamaguchi Kirara Expo venue.

One of the largest rockfill dams in Japan
Isawa Dam

For a future all living things can live comfortably
Okinawa Prefecture's Mongoose Control Project.

Major Achievements in Japan

https://www.yachiyo-eng.co.jp/60th/

Safe Water for Desert Cities
"Water Supply and Sewerage Improvement Project for Giza City, Egypt."

"Panama Canal Alternatives Study."

Solving a Growing Traffic Problem
“Calcutta Transportation Infrastructure Development Project, India”

Bringing Light to Unelectrified Areas
“Nigeria Electrification Project"

Erosion Control Facilities in Indonesia
Mount Merapi

The implementation of a national early warning system in the Kingdom of Tonga."

Major Overseas Achievements

https://www.yachiyo-eng.co.jp/60th/

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Introduction of Water Related in Pacific Islands conducted by YEC

Jan, 2026

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YACHIYO Engineering

The Project for Improvement of Non Revenue Water Reduction Capacity for Solomon Islands Water Authority

Client

- Japan International Cooperation Agency (JICA)
- Solomon Islands Water Authority (SIWA)

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A Strategic Partnership to Build Sustainable Capacity

Location:
Honiara, the capital city of the Solomon Islands.

Partner:
Solomon Water (SW), the national urban water and wastewater utility.

Project Goal:
To develop SW's organizational and individual capacity to systematically plan, implement, and manage Non-Revenue Water (NRW) reduction activities for long-term sustainability.

Scale & Duration:
A comprehensive 3.5-year technical cooperation project (October 2012 - June 2016) covering the entire Honiara water supply network.

Honiara's Water Crisis: Over Half of All Water Was Being Lost

56%

Non-Revenue Water (NRW) Rate (as of 2011)

SBD 5M Deficit

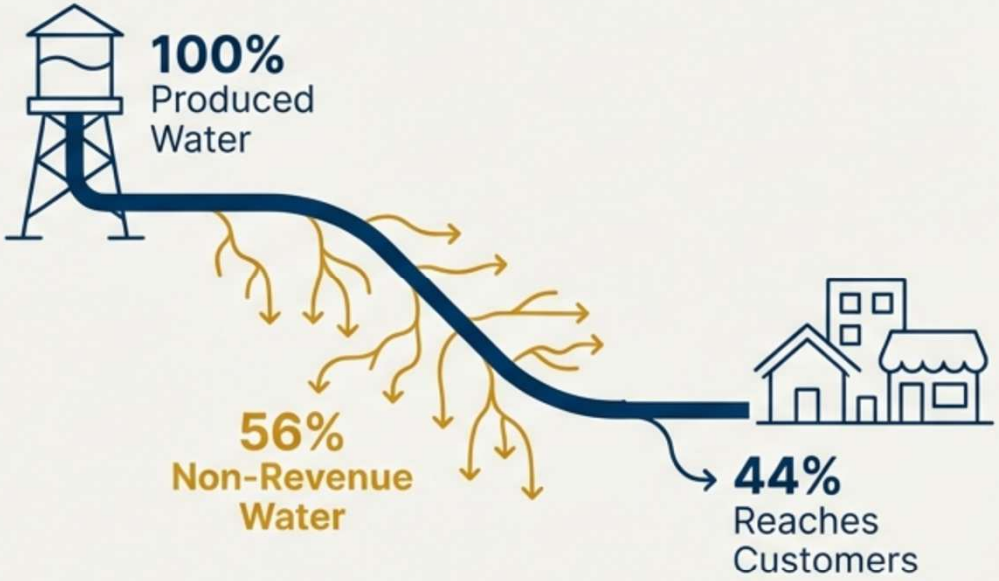
Operating at a significant financial loss (in 2010)

2/3 of Customers

Faced Intermittent Supply & Water Restrictions

Core Problem:

The utility's approach to water loss was purely reactive, responding only to visible surface leaks. There was no systematic plan, proactive leak detection, or technical capacity to manage the problem effectively.



Building a System, Not Just Fixing Pipes

Empowering People

Established dedicated NRW Management & Action Teams. Provided hands-on training and capacity development for local SW staff to create in-house experts.

Deploying Technology

Introduced modern leak detection equipment (acoustic listening sticks, leak noise correlators) and developed a comprehensive GIS database for network visualization and management.

Systemizing Processes

Implemented a data-driven approach using District Metered Areas (DMAs) for precise monitoring. Developed Standard Operating Procedures (SOPs) for active leakage control, metering, and billing.

Step 1: Making the Invisible, Visible with Data-Driven Diagnosis

Established District Metered Areas (DMAs)

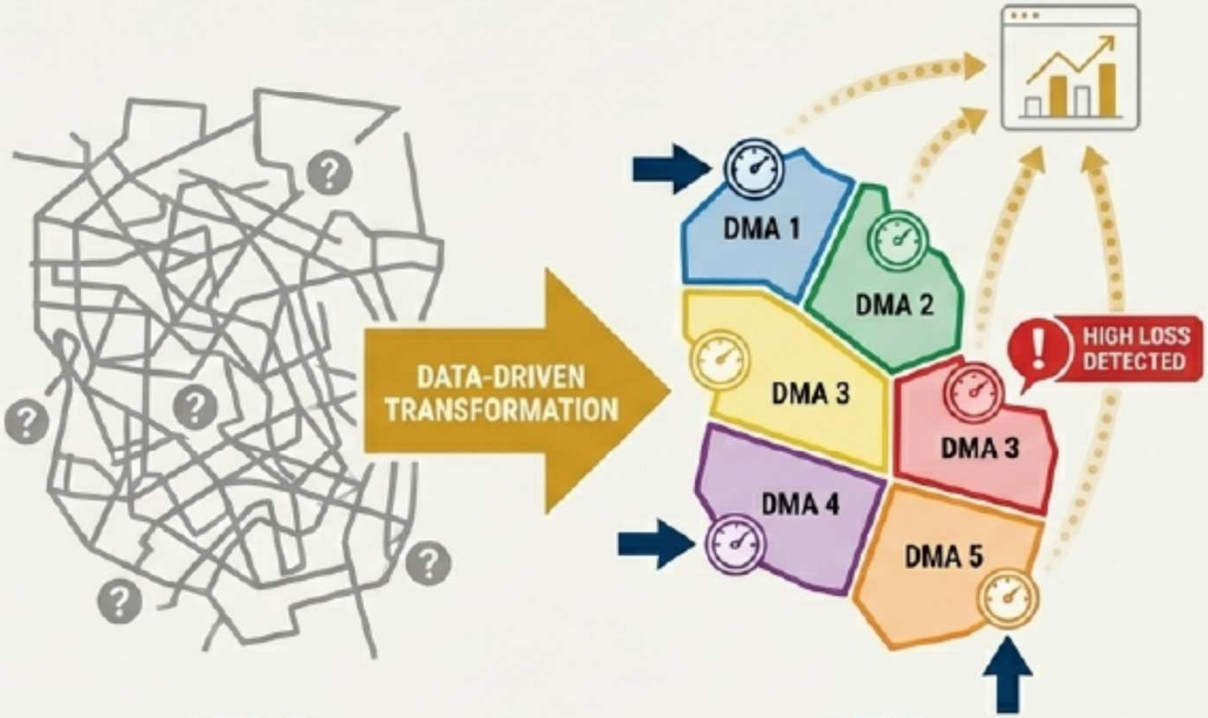
The complex Honiara network was divided into smaller, hydraulically discrete zones. This allowed for accurate measurement of water inflow to isolate and prioritize high-loss areas.

Conducted Hydraulic Analysis

Analyzed pressure and flow dynamics within each DMA to understand systemic issues and optimize network performance.

Developed a GIS Database

Created a digital map of the water network, logging all pipes, valves, and customers. This became the foundational tool for all planning, maintenance, and operational activities.



Step 2: Equipping the Team for Success

Technical Field Training

Intensive, on-the-job training in advanced acoustic leak detection, pipe locating, and pressure management.

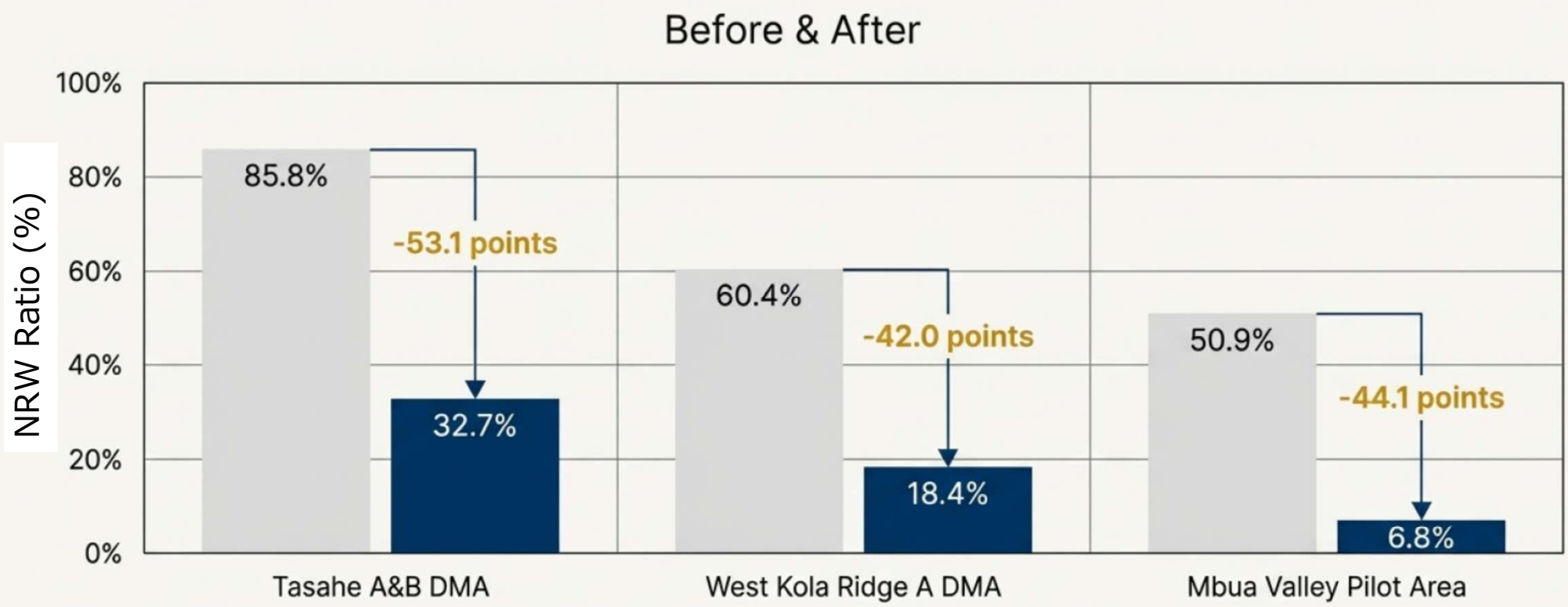
Operational Training

Workshops on data analysis from DMAs, SOP implementation, and improving customer metering and billing processes.

Community Engagement

Partnered with SW to develop and execute public awareness campaigns, including resident meetings and school programs, to foster a community-wide culture of water conservation.

Transformative Results: Slashing NWR Ratio in Target Zones



The systematic, data-driven approach enabled Solomon Water to achieve and surpass project goals, demonstrating the effectiveness of the methodology.

Data Source: Project Completion Report, Figure 9.1-1.

The Impact: A Foundation for Financial Health and Reliable Service

Financial Sustainability

The NRW reduction program demonstrated a high return on investment, moving the utility toward operational profitability. For the first time since 2011, the water tariff per m^3 exceeded the cost of supply (as of 2015).

Improved Service Delivery

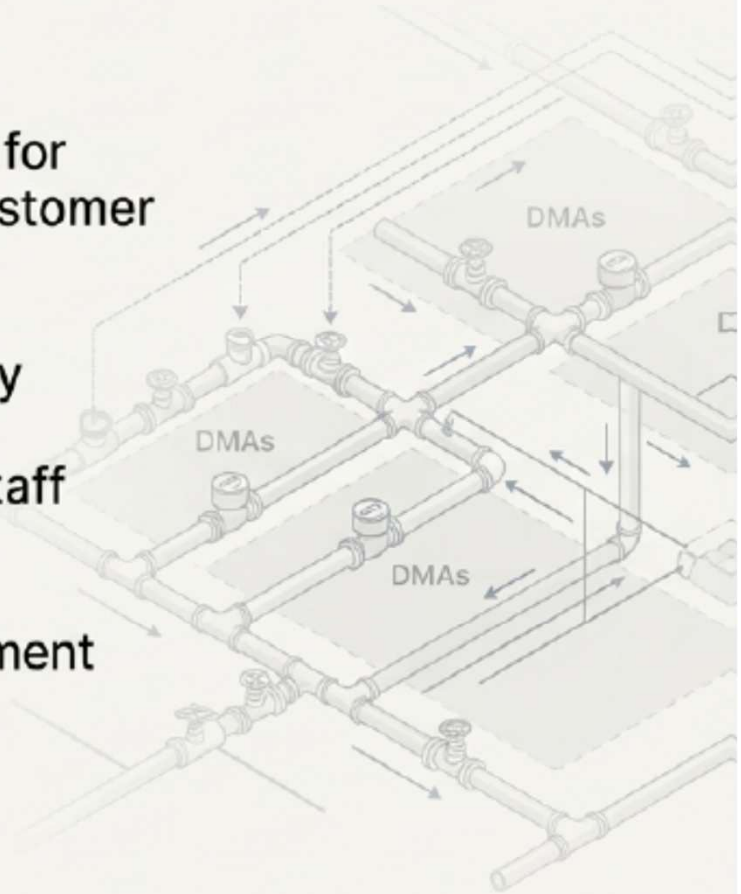
Reducing water loss allowed for more stable pressure and 24/7 supply, directly improving the quality of life for residents and reliability for businesses.

Empowered Local Utility

Solomon Water's team is now equipped with the skills, systems, and confidence to continue and expand the NRW reduction program independently, ensuring the results are sustainable.

Our Capabilities: Your Partner for Water Security

- ✓ Comprehensive NRW Reduction Master Planning & Strategy
- ✓ Hydraulic Network Analysis & DMA Design
- ✓ GIS-Based Infrastructure & Asset Management Systems
- ✓ Advanced Leak Detection & Active Leakage Control Programs
- ✓ Utility Operations Improvement (SOPs for Metering, Billing, Customer Service)
- ✓ Customized Capacity Building & Technical Training for Utility Staff
- ✓ Public Relations & Community Engagement Strategies for Water Conservation



Preparatory Study for the Project on Improvement of Water Storage Capacity in Majuro Atoll, Republic of the Marshall Islands

Client
- Japan International Cooperation Agency (JICA)
- Majuro Water and Sewer Company (MWSC)

Jan, 2026

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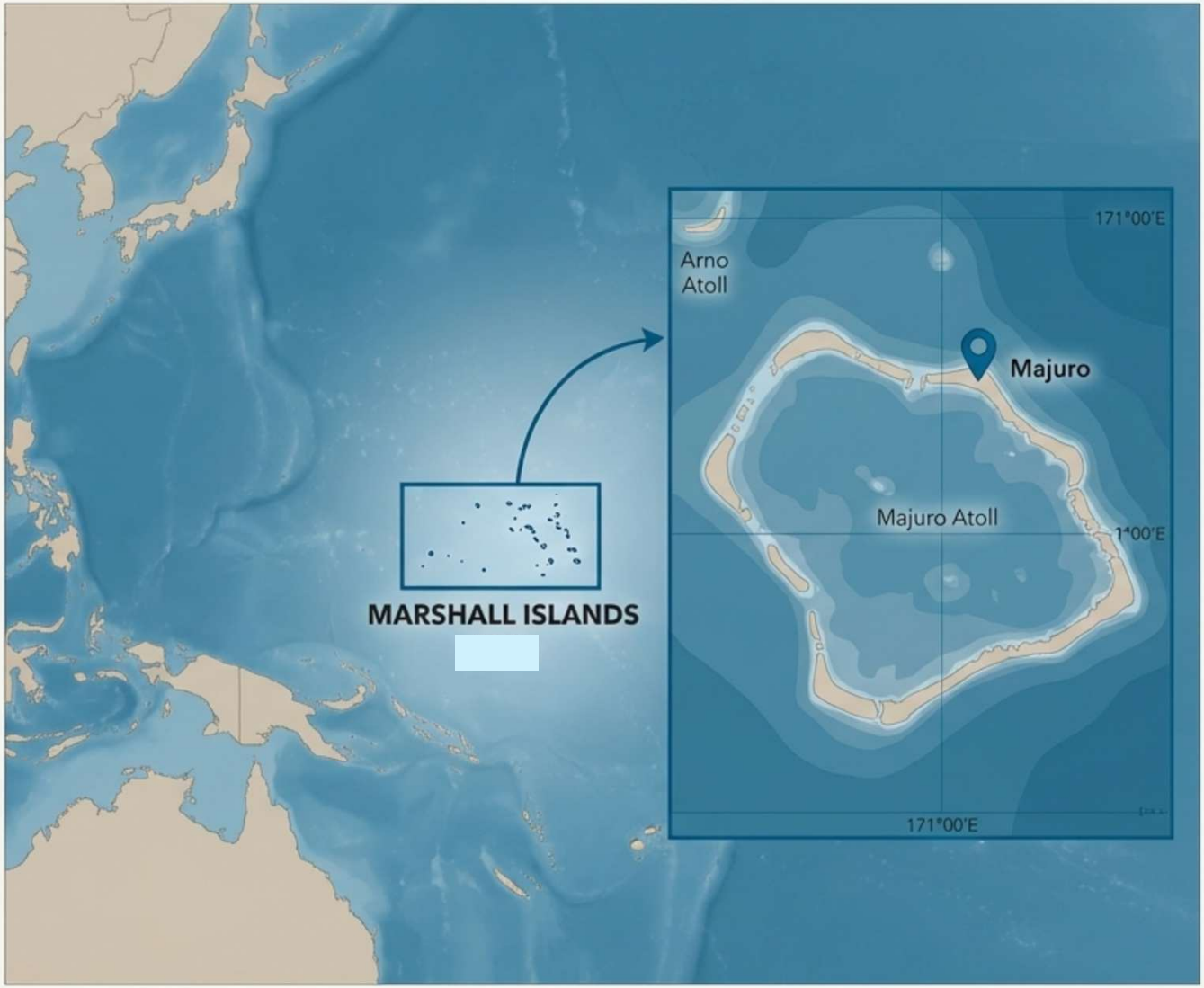


The Republic of the Marshall Islands: A Unique Water Challenge

Geography: An atoll nation with no rivers or lakes, making it uniquely vulnerable.

Primary Water Source: Almost entirely dependent on variable rainfall, a source becoming increasingly unreliable.

Population Concentration: Approximately 29,000 people, half of the nation's total population, reside in the capital, Majuro.

Facing a Perfect Storm of Water Scarcity

Rising Demand & Aging Infrastructure

A growing population in Majuro is placing increasing strain on the water supply. Existing reservoirs suffered from significant leakage and structural degradation, losing precious water resources.

Extreme Climate Volatility

The increasing frequency and severity of droughts, driven by climate change, pose a constant threat. Extreme fluctuations in rainfall patterns disrupt the primary source of fresh water for the entire atoll.

The Critical Threat

Before the project, Majuro's water storage was only sufficient for

55 days

during a severe drought. This posed a direct threat to public health, education, and the nation's economic stability.

Project Goal

To construct a new, large-scale rainwater reservoir to significantly increase Majuro's water storage capacity and build resilience against drought.

Project Scale (Key Metrics)

New Reservoir Capacity
15 Million Gallons
(56,900 m³)

Project Site
5.7 acres (2.3 ha) of land constrained between the international airport and the ocean.

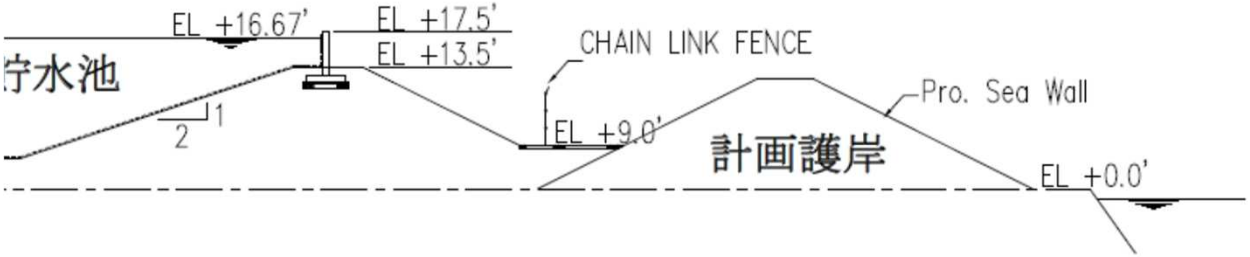
Key Components
New 15MG Reservoir, 335m Protective Seawall (sloped revetment type), and associated Conveyance Facilities.

Challenge: Extreme Weather & Sea Level Rise

The project site is directly exposed to ocean waves, storm surges, and the constant threat of saline intrusion into the freshwater supply.

Yachiyo's Solution: A Climate-Resilient Seawall

- Designed and constructed a 335-meter sloped revetment seawall to protect the reservoir.
- The design's crest elevation was precisely calculated to account not only for current design wave heights but also for projected future sea-level rise, ensuring long-term protection of this critical national asset.



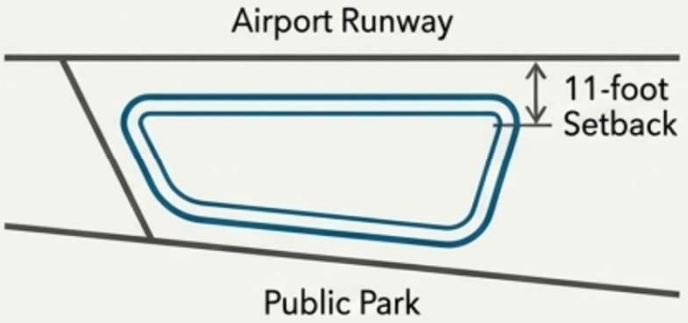
Maximizing Resources While Protecting a Delicate Ecosystem

Challenge: Limited Space & Strict Aviation Regulations

The 5.7-acre site was severely constrained by the airport, a public park, and existing infrastructure.

Yachiyo's Solution: Optimized Site Layout

- The reservoir footprint was meticulously designed to maximize storage capacity.
- We successfully coordinated with the Republic of the Marshall Islands Ports Authority (RMIPA) to adhere to all aviation safety regulations, including a mandatory 11-foot setback from the airport boundary fence.

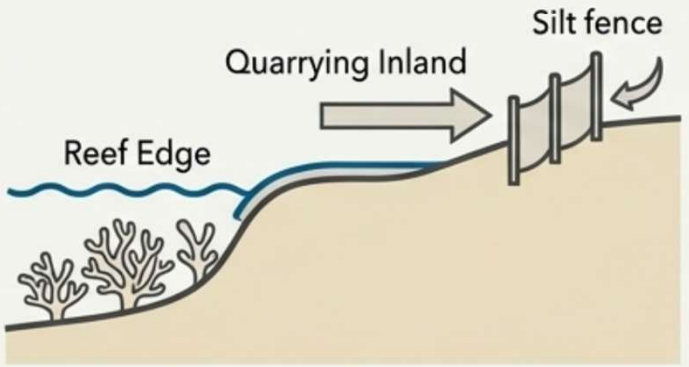


Challenge: Environmental Protection

Quarrying rock for the seawall posed a potential risk to the sensitive coral reef ecosystem offshore.

Yachiyo's Solution: Eco-Conscious Construction

- Mandated that all rock quarrying activities take place inland from the reef edge to prevent damage to living coral.
- Implemented strict mitigation measures, including silt fences, to prevent construction runoff from impacting the marine environment.



Delivering a Tangible and Lasting Impact

Water Supply Duration During Severe Drought

Broader Impacts

Improved Quality of Life

Reduced the need for severe water rationing for Majuro's ~29,000 residents, improving public health.

Strengthened National Security

Enhanced the nation's resilience against the primary effects of climate change.

Global Goals

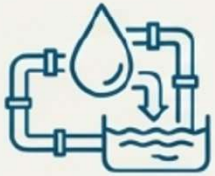
Directly contributed to the achievement of Sustainable Development Goals (SDGs) 6 (Clean Water and Sanitation) and 13 (Climate Action).

Your Partner in Building a Resilient Future

Core Capabilities for Island Nations

Climate-Adaptive Infrastructure Design

Proven by our design of the Majuro seawall, engineered to withstand future sea-level rise.



Integrated Water Resource Management

Proven by our end-to-end design of the reservoir and conveyance system, optimized for an atoll environment.

Environmental Assessment & Mitigation Planning

Proven by our proactive planning and execution of measures to protect sensitive coral reef ecosystems during construction.

Complex Project & Stakeholder Management

Proven by our successful project execution in a constrained site, coordinating with aviation, government, and local stakeholders.

Comprehensive Feasibility Studies & Master Planning

Proven by the foundational JICA preparatory survey and detailed design that ensured project success.

YACHIYO
Engineering

Thank you for your kind attention !

Contact Information
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Jan, 2026

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