

# PWWA NEWSLETTER

02<sup>nd</sup> Edition, 01<sup>st</sup> April – 30<sup>th</sup> June 2023



## Message from the CEO

Dear PWWA Colleagues, partners, members, and friends,

*I am pleased and humbled by the trust and confidence the Board has expressed in re-appointing me as your CEO for the next three years, after a rigorous recruitment and selection process. I extend my thanks to you all for the support rendered throughout the past years I have held this role that has seen our organization grow despite the many challenges we faced especially during the Covid-19 period.*

*We had reported in the previous Newsletter of the approval by the Council and Board of the new Strategic Plan with the vision of “sustainable water and sanitation for Pasifika”. It is my most sincere hope that together we will seek for a more sustainable Pasifika over the next three years and beyond, and to actually become the peak water Association for Pasifika. We are the only water Association in this region, and I hope that together we can make PWWA an organization recognized internationally and in the region for its work in building resilient water communities.*

*The current and new Board elected at last year’s AGM, are actively working to help your Secretariat champion this cause and we trust you as our membership and partners will work to make PWWA a recognized organization by our leaders, our international partners, and other organizations as the peak body for water and wastewater in the Pacific.*

*I encourage your active participation as members and partners in our activities and programs and especially in attending our Annual Conference and Ministerial Forum. This is the only major event we have annually – it is an expensive event for any country or utility to host but without a host country’s commitment as well as the kind assistance of our major partner, the ADB we will be unable to have this event. Show your commitment and engagement as an active member of PWWA and attend our events!*

*I very much look forward to seeing you all in Palau August 28-September 1st and to working with you all over the next three years.*

God bless,

Lusia Sefo Leau  
Chief Executive Officer

## IN THIS ISSUE

1. Message from CEO.....pg1
2. Media Release.....pg2
3. Australian Water Association.....pg3
4. ADB-PWWA Pacific WASH Webinar Series.....pg11
5. Water Authority Fiji.....pg12
6. Pacific Engineering Projects Ltd.....pg14
7. Moerk Water.....pg16
8. Pacific Region Infrastructure Facility - PRIF.....pg18
9. Ministry of Natural Resources and Environment Samoa.....pg19



Pacific Water and Wastewater Association Secretariat  
P.O. Box 868 ,L4 FMFMII Building, Eleele-fou, Apia  
SAMOA  
Ph: +685 30 32€  
Email: [info@pwwa.ws](mailto:info@pwwa.ws)  
Website: [www.pwwa.ws](http://www.pwwa.ws)

## **Pacific Water & Wastewater Association, Inc**

*“Sustainable water and sanitation for Pasifika”*

### **Pacific Water and Wastewater Association (PWWA) Media Announcement**



The PWWA Chairman, Mr Ian Gooden, is happy to announce the re-appointment of Ms Pitoula Lusie Sefo Leau to another term as CEO of PWWA. This announcement follows a rigorous recruitment and selection process by the Board of Directors in April/May.

Ms Sefo Leau was initially appointed in late 2016 to facilitate the setting up of a permanent Secretariat in Samoa. In the past six years she has successfully worked with the Board in building and sustaining the membership of PWWA, forged new and strengthened partnerships with PWWA’s development partners, especially during Covid-19 years. Lusie brings in more than 20 years of experience to the position, having worked previously with the Government of Samoa in senior management roles in finance, policy and strategic planning including CEO of the Ministry of Customs and Revenue, and as an Advisor to the Board of ADB. She was recognized for her transformational leadership in 2013 and received the Public Service of Samoa excellence award for “inspirational leadership”.

It is expected that Ms Sefo Leau will lead PWWA to a new level in driving the new vision and strategic priorities of PWWA 2023-2028 through strengthening advocacy, collaboration and capacity building for sustainable water and sanitation across the Pacific.

***“We are confident that Ms Sefo Leau can guide this organization into the future. I can think of no one better than Lusie to lead PWWA over the coming years” said Ian Gooden, Chairman of PWWA.***

Ms Pitoula Lusie Sefo Leau assumed responsibility from 1 June 2023 in her contract.

PWWA Secretariat.

## Australian Water Association

*(source Australian Water Association)*

### **Partnerships for a resilient and climate smart water sector**

The Australian Water Association (AWA), supported by the Australian Water Partnership (AWP), is driving collective impact for a resilient and climate smart future through partnerships in Vietnam, Indonesia, and the Pacific.



#### ***Program Snapshot: The Solomon Islands***

In April of this year Sally Armstrong, Head of International and Industry Programs at AWA, was on an island-hopper on her way to Munda, on New Georgia Island in the Western Province of the Solomon Islands. Quickly learning to enjoy flying on smaller planes, Sally was joined by two Goulburn Valley Water representatives, Tony Wulff, General Manager - Technology & Transformation, who happens to be a small-aircraft pilot, and Elise O’Keeffe, District Manager – Central Operations.

Together, they were on a fact-finding mission with Solomon Water CEO Ian Gooden and his team to find a solution to a climate change induced problem: saltwater intrusion at a critical island water source due to rising sea levels.



*Elise O’Keeffe, GVW District Manager - Central Operations, on the way to Munda, New Georgia Island, Western Province of the Solomon Islands.*

The Solomon Islands, with a population of over 700,000, spread over nearly 350 different islands, faces significant water supply challenges, which are increasing as the climate changes.

During their trip, the team made good inroads, working together to develop a draft action plan to overcome the saltwater intrusion challenge. Then, in early May, two members of the Solomon Water team, COO, Scravin Tongi and Technical Officer, Benjamin Billy, travelled to Ozwater’23 in Sydney to start putting their plans into action.

It was the first time Benjamin had been to Australia, and though he was excited to be in Sydney, he spent his time focused on how he could leverage Australian expertise to solve water challenges back home.

At Ozwater'23, with the support of Tony from Goulburn Valley Water, Scravin and Benjamin held several promising meetings with contractors to discuss designs for solutions to the saltwater intrusion challenge. The following week, Scravin and Benjamin joined some of their Solomon Water colleagues for a week-long study tour at Goulburn Valley Water, where they worked together to finalise a year-long collaborative action plan to address not only the saltwater intrusion issue, but also designed interventions to reduce major pressure management issues, which are leading to an unsustainable level of water loss in the Solomon Water network in the capital Honiara.



*The Solomon Water team learning from the team at Goulburn Valley Water, May 2023*

*This partnership, between Goulburn Valley Water and Solomon Water, is just one of six such international partnerships facilitated by AWA's International Development Program, funded by the Australian Water Partnership (AWP), as part of the Partnerships for a Resilient and Climate Smart Water Sector Program (The Program).*

### **Program Purpose & Goals**

The Program is contributing to regional water sector outcomes including improved climate resilient water management, asset management, low carbon futures, energy efficiency, incident management, and business resilience. In line with the Australian Government's goals of supporting nations in the Indo-Pacific to achieve

gender equity commitments under Sustainable Development Goal 5, the Program is also developing strategies and actions for achieving gender equity and social inclusion outcomes in the water sector.

The Program is part of AWA's International Development Program which, with support from the Australian Government, connects AWA's international partners with Australian knowledge and expertise to build sector strength and drive a sustainable water future for all in our region. Building on previously successful international utility partnerships designed and facilitated by AWA, the Program provides a unique opportunity for members of AWA and its international partners to address common water sector challenges and work towards achieving the Sustainable Development Goals (SDGs) in the region.

### ***Ensuring Strong, Sustainable Partnerships***

The Program began with a comprehensive scoping phase at the end of 2022, with AWA working with peak water associations in Vietnam, Indonesia, and the Pacific to identify water utilities in Australia and internationally that would make strong candidates to join the Program as partners.

***Sally Armstrong shared how important it is to do the groundwork in programs like these, making sure that the needs of international partners are well matched with the support that Australian partners might be able to contribute:***

***"Each partner we work with, whether that be in the islands of the Pacific, or the Mekong delta, has specific needs, opportunities, and challenges. The core of our work is deeply understanding these so we can connect them with the support that is going to help most, whilst also creating amazing two-way learning and leadership experiences for all involved."***

In Vietnam, working with the Vietnam Water Supply and Sewerage Association (VWSA), AWA identified Hoa Binh Clean Water Company in the north as a strong match, or 'twin' with the Cassowary Coast Regional Council, based in northern Queensland, and the needs of Can Tho Water Supply and Sewerage Company (WASSCO) were aligned with the capacities of the southeast Queensland based Urban Utilities.

In Indonesia, working with the Indonesian Water Supply Association (PERPAMSI), AWA matched PT. Air Minum Giri Menang, (based in Lombok) with TasWater, and Tirta Musi Palembang City with Yarra Valley Water (Victoria).

In the Pacific, AWA worked with the Pacific Water and Wastewater Association (PWWA) to partner Solomon Water and Goulburn Valley Water from Victoria (as highlighted above), as well as the Tonga Water Board with Unity water from southeast Queensland.



Senior leadership of VWSA, PERPAMSI, AWA, PWWA, and the Cambodian Water and Wastewater Association (CWA) discussing the importance of international partnerships for climate resilience in the water sector on a dedicated panel at Ozwater'23 in Sydney.

### Two-way Learning and Benefits

To date, in addition to Goulburn Valley Water's visit to the Solomon Islands highlighted above, the Program has seen Australian utility partners from Unitywater, Cassowary Coast Regional Council, Urban Utilities, TasWater, and Yarra Valley Water join study tours to their twinned locations in the Pacific, Vietnam, and Indonesia. These visits, which followed the earlier scoping and matching by AWA, provided opportunities for the partnered utilities to begin to build strong,

respectful relationships, and get to know each other's needs and capacities, before starting work developing a shared action plan to guide their collaboration throughout the next year of their partnership.

As **Greg Bailey** from the Unitywater team's experience with the Tonga Water Board shows, there are benefits for both the Australian and International partners in the Program:

*"I've made new friends and connections within our own company that I wouldn't have had the opportunity to do, and being able to share my knowledge and use my qualifications to benefit another utility is very exciting to see what positive impact it may have on their future day-to-day operations."*

For Australian utility partners, participating in programs like this is often eye-opening, and provides opportunities to deepen their commitment to work in the water sector, both in Australia and abroad. **Amanda**

**Binks** of Unitywater shared the following after her trip to work alongside Tonga Water Board:

*"One of the biggest impressions I'm left with is the things we share as water industry professionals – the passion, commitment, and level of care for the people we serve. Our Tongan colleagues have a commitment to excellent customer care and to ensuring safe water supply 24/7 - a mission familiar to Unitywater."*

Amanda and Greg, along with their colleague Taryn Colless and other team members at Unitywater, will be working with Tonga Water Board over the next year as part of the Program to share tools and approaches to ensure this level of service can continue in the face of climate disasters, and to learn from Tonga Water Board's successful track record responding to tsunamis and volcanic eruptions.

For international partners, participation in the program has already led to Australian based study tours, participation and presentations at Ozwater'23 (Sydney), and the development of action plans to work with their Australian

partners on some of their big challenges. Looking ahead, to support implementation of the action plans, AWA will facilitate regular online meetings and knowledge exchange workshops, additional international and Australian-based study tours, and the sharing of learnings and outcomes from the Program at Ozwater'24 in Melbourne.

For **Elisiva Tapueluelu**, Deputy CEO – Administration of Tonga Water Board, who recently presented at Ozwater'23 as part of the Program, then joined a study tour to Unitywater, the Program has already lead to much new learning, as well as some strong new relationships:

*"Partnerships like this are really useful as they encourage external engagement and support us to think creatively to solve the increasing climate challenges that we have. During AWA's study tour to Tonga, we were also blessed to have AWA CEO Corinne Cheeseman join us. This was a great opportunity for us to talk about organisational strategy to achieve our priorities."*

### Sharing Water Sector Learnings for Collective Impact

As the engagement between the Program utility partners deepens, and as they work towards the goals outlined in their action plans, AWA will work with its association partners to ensure that the learnings on the ground are shared within their broader networks. AWA, as facilitator, is working with all Program partners to develop capacities and knowledge exchange practices to increase the collective impact of climate resilience initiatives in the water sector across the region.

## A Closer Look at the Program Partnerships and Collaborative Action Plans

### Utility Partnerships

After study tours by Australian partners to visit their international 'twins', international partner leadership participation at Ozwater'23, and study tours by international partners to their Australian twins, each of the six utility partnerships have developed a comprehensive action plan, including strong monitoring and evaluation processes to gauge program impacts. Outlined below are the key focus areas of each partnership action plan.



**TasWater and PT. Air Minum Giri Menang** have identified two priority action areas:

1. Building resilient water systems to reduce non-revenue water loss through improving new and existing assets, increase the confidence and capability of Giri Menang to implement new tools, practices, procedures and strategies to reduce non-revenue water and improve water resilience in the water supply system.
2. Establishing documented processes for incident management and building capability to respond to climate change related emergencies, increasing the confidence and capability of Giri Menang to respond to emergencies in a planned and consistent way.

*Yarra Valley Water and Tirta Musi Palembang City have identified three priority action areas:*

1. Building resilient water systems and improving business sustainability through reducing system water losses, increasing capacity to reduce water losses and improve water resilience, decreasing in non-revenue water, and improving asset management and internal knowledge exchange processes.
2. Building energy efficiency towards a low carbon future, increasing capacity to implement energy efficiency interventions, improving maintenance and asset management processes, and increasing renewable energy capacity.
3. Strengthening business resilience and incident management and responses to climate change related emergencies through wastewater management capacity building, increasing confidence and capability to respond to emergencies and to operate water and sewer networks in a planned and consistent way.



**Can Tho Water Supply and Sewerage Company and Urban Utilities**  
*have identified the following two focus areas:*

1. Building water resilience and climate smart capacities through development of operating strategies and protocols for asset management, developing improved understanding of approaches and tools that can be used for planning strategic asset management.

2. Improving water supply operating strategy and protocol development capacity in contexts of variable source water due to climate change, with a focus on end-to-end online monitoring from source to network.



**Hoa Binh Clean Water Company and Cassowary Coast Regional Council**  
*have identified three priority action areas:*

1. Building water resilience and climate smart capability through online monitoring of turbidity of water source quality, improving understanding of online turbidity monitoring systems and developing capacity to create a business case for new tools and technologies.
2. Building water resilience and climate smart capacities via knowledge sharing to reduce water losses through workshops on equipment and devices including DMAs and smart meters used at Cassowary Coast.
3. Building water resilience and climate smart capacity via knowledge sharing to enhance the efficacy of asset management, building asset management capacity, understanding of Australian standards and policies.



**Tonga Water Board and Unitywater** have identified the following two priority action areas:

1. Enabling sustainable and resilient water supply through commissioning and asset management framework development of TWB solar farm to provide reliable and sustainable power, developing understand of the risks of the solar farm project, and developing solar farm management capacity.
2. Climate proofing and resilience through increasing capability for disaster preparedness and response, increasing confidence and capability to respond to incidents in a planned way to improve resilience and recovery from disasters such as cyclones, volcanic eruption, earthquakes, and Tsunamis.

**Solomon Water and Goulburn Valley Water** have identified the following three priority action areas:

1. Climate resilient asset management practices: co-design of solution to reduce saltwater ingress at the Noro water source, reducing water supply interruptions due to high tide events for 5000 residents and 3 major commercial customers (cannery, port and national fisheries development). Additionally, reducing financial losses for Solomon Water due to increased capability to provide continuous supply.
2. Climate resilient water management: reducing physical water losses from the water network, reducing pipe bursts, improving water supply reliability and pressure for customers, and improved pressure management capabilities.
3. Improved business resilience: improving financial position re-designing the meter to cash (billing) process, through improving cash flow, revenue process efficiency and decision making, and reduction in overdue accounts.





## Association Partnerships

In addition to the utility-utility partnerships, AWA is 'twinned' with the three associations taking part in the Program. The associations are the principal partners in the Program, working with AWA to initially identify strong utility candidates to take part, and then working with AWA to support the implementation of action plans, and sharing of Program learnings amongst their members and networks. As with the utility partnerships, AWA has developed action plans with each of the participating associations to identify areas that AWA can support association capacity building. These focus areas are outlined below.



*Leaders of AWA partner associations VWSA, PERPAMSI, PWWA, and the Cambodian Water and Wastewater Association (CWA) participating in a panel at Ozwater'23 on the importance of partnerships to build climate resilience, facilitated by Katharine Cross, Strategy and Partnerships Lead at AWP, with Sally Armstrong, Head of International and Industry Programs at AWA.*

## AWA & VWSA:

The continuing partnership between VWSA and AWA, cultivated over nearly a decade, has reached a high level of trust, with the two associations engaging in collaborative efforts to facilitate knowledge sharing activities among the four water utilities from Australia and Vietnam. Together, AWA & VWSA have identified the following three priority areas to work on during the Program:

1. Enhancing VWSA's capacity to generate member and water sector insights to represent Vietnam's water sector with key decision members through improved two-way member communications.
2. Enhancing VWSA's capacity to drive a more inclusive water sector through the development of GEDSI programs including Women in Water and Vietnam YWP network.
3. Creating opportunities and providing the platforms for Can Tho WASSCO and Hoa Binh Clean Water Company to share their learnings on climate smart and resilient water management from their partnerships with Urban Utilities and Cassowary Coast Regional Council with the wider water sector.

## AWA & PWWA :

AWA has an ongoing relationship with PWWA, having worked together in several capacities for several years. However, since this Program has begun, the relationship has strengthened, with the two associations having identified clear pathways to work together to build PWWA's capability to support its members to achieve a resilient and climate smart water sector. AWA & PWWA have identified the following three priority areas to work on during the Program:

1. Develop PWWA's communications for impact capacity, strengthening trust in PWWA and increasing momentum for a resilient and climate smart water sector.
2. Building business resilience in both associations by improving member value through new and existing member offerings to drive a resilient and climate smart water sector.
3. Increasing the impact and inclusivity of PWWA's climate resilience knowledge exchange activities, including at the annual PWWA conference.

## **AWA & PERPAMSI:**

Through the collaborative planning and preparation of the outbound study tours to Giri Menang and Tirta Musi, and the time spent together during the study tours, the trust and relationship between the two associations has strengthened as the Program has developed. The association-to-association action plan, whose focus areas are outlined below, has been successfully co-designed, with both organisations committed to achieving clear outcomes over the next 12 months:

1. Building business resilience in both associations by improving member value through new and existing member offerings to drive a resilient and climate smart water sector.
2. Improving data collection processes to generate member and water sector insights to enhance PERPAMSI's capacity to represent Indonesia's water sector with key decision makers.
3. Creating opportunities and providing the platforms for Tirta Musi and Giri Menang to share their learnings on climate smart and resilient water management from their partnerships with Yarra Valley Water and TasWater with the wider water sector.

***If you or your organisation are interested in supporting work like this with AWA's international partners, reach to us via [international@awa.asn.au](mailto:international@awa.asn.au)***

## ADB-PWWA Pacific WASH Webinar Series

During the quarter, the second webinar for 2023 was held on 17 May touching on groundwater assessments to support planning and resilience. The webinar was opened by the ADB Pacific Department Deputy Director General, Mr Hideaki Iwasaki, and Mr Fuimaono Dominic Schwalger as Deputy Chairman of the PWWA Board.

Groundwater is increasingly seen as an alternative resource where surface water is becoming more vulnerable to droughts and other climate-related impacts. Groundwater assessments are critical to utilities in diversifying their sources or expanding groundwater abstraction. Understanding groundwater resources is central to building resilience in water supply systems. As water supplies in Pacific urban centers become scarce and increasingly stressed by climate change, being able to assess the potential of groundwater becomes even more important.

The webinar explored groundwater assessment concepts, tools, and data used, and how they are applied to water supply planning. Samoa Water Authority and Water PNG shared their experiences with developing groundwater assessments, well-field expansion, and how analyzing data was helpful in their planning and development.

The **third Pacific WASH** webinar in this series is scheduled for 5 July 2023 and will focus on the role of utilities in supporting rural WASH. Case studies will be presented from the Water Authority of Fiji and on a Village Water Committee pilot in Tonga, along with insights from other international case studies.

The image is a title slide for a webinar. At the top left, it says "Pacific WASH" in blue, with "WEBINARS" in smaller blue letters below it. A horizontal line separates this from the main content. The main content on the left side includes the title "Role of Utilities in Supporting Rural WASH" in large blue font, followed by the date "5 July 2023" in a smaller blue font. On the right side, there is a colorful illustration featuring a water tap, a water truck, a person holding a glass of water, and a hand holding a water tap handle. The background of the slide is a light blue gradient. At the bottom left, there are two logos: the ADB logo and a circular logo with a water drop and a person.



## Water Authority Fiji

### **Commissions of New Vunidawa Water Treatment Plant**

*(source Water Authority Fiji)*

Residents of Vunidawa in Naitasiri now have access to clean and improved water supply following the commissioning of the new water treatment plant by Minister for Public Works, Hon. Ro Filipe Tuisawau, on June 29<sup>th</sup>, 2023.



The Minister stated “We are all gathered by this state-of-the-art raw water packaged treatment plant. This is a symbol of the commitment of your Government to you, the people of Naitasiri. I need not remind us that access to clean water and improved sanitation is the constitutional right of every citizen, and as a Government, we will continue to uphold and work with a commitment on that with our statutory authorities and leadership,”.

Minister Tuisawau said that water is crucial to the achievement of Fiji’s commitment to Sustainable Development Goals (SDGs) as it plays an important role in the development of Fiji’s infrastructure. “I note that 98% of Fiji’s urban population and 58% of our rural population have access to water, and our Government will ensure

that we continue to prioritise rural water schemes and those who do not have access to safe and clean water.” Minister Tuisawau encouraged the people of Vunidawa to get connected to the new and upgraded water supply scheme and apply for their respective water meters to realise the benefits of the new water project. “We are also working on our first-ever water sector strategy 2050 plan.

The Water Sector Strategy 2050 will outline Fiji’s



water sector priority projects and programs over the next three decades aimed at transforming how services are delivered, responding to climate vulnerability to services, renewing our ageing water and wastewater infrastructure, contributing to the circular economy and enhancing the natural environment,” Minister Tuisawau explained. Meanwhile, the previous Vunidawa water treatment facility was a rural water supply scheme with a partial water treatment system that was established over 60 years ago. “This new Vunidawa packaged water treatment plant has a treatment capacity of

500,000 litres per day and can handle high turbidity levels that will guarantee safe, potable and improved water quality and supply during unfavourable weather conditions. This plant also has a 33KVA backup Genset that has been mobilised and connected to the Vunidawa Treatment Plant to build resilience in WAF's water production and supply scheme in the Vunidawa," said Minister Tuisawau. The new packaged water treatment plant and the reservoir has been constructed with a cost of \$3.3 million and fully funded by the Government of Fiji. The new treatment plant will serve the Vunidawa Government Station, Vunidawa Hospital, two schools, shopping centres and nearby villages and communities, benefitting a total of 1,100 Fijians in the area with the provision for more new connections for future demands.





## Pacific Engineering Projects Ltd

---

*(source Pacific Engineering Projects Ltd)*

Project: Sadog Tasi Wastewater Treatment Plant  
Client: Commonwealth Utilities Corporation  
Contractor: Pacific Engineering Projects Limited



The Sadog Tasi Wastewater Treatment Plant (**WWTP**) clarifier upgrade project located in Puerto Rico Drive, Saipan, Northern Mariana Islands (**CNMI**) is currently one of the major projects in the US commonwealth. This project was secured by Pacific Engineering Projects Ltd (**PEP**) in October 2022 after an international competitive tendering process conducted by our client, Commonwealth Utilities Corporation (**CUC**).

The main clarifier mechanisms were no longer in use due to its condition and age. This project is for the replacement of the Sadog Tasi WWTP clarifier. The main scope includes the decommissioning of the main clarifier, the dewatering of the clarifier and the aeration basin number 1, demolition and removal of the existing circular clarifier mechanism including the fixed bridge, suction arm, counter-balance arm, suction head, torque cage, central platform, drive mechanism, skimmer arm, scum box, and other miscellaneous items. The work also includes the installation of new sloped concrete with sludge pit. All the removed and demolished mechanisms will be replaced with new mechanism supplied by **PEP**. This project is funded by United States Environmental Protection Agency (**USEPA**) with contract number CUC-WW-22-C040.

The project is led by **PEP** Regional Manager Mr. Ranites Singh. The management team lead by him and the New Zealand based office is playing a major role in the success of this project.

The replacement of the Sadog Tasi **WWTP** Clarifier is progressing well and is expected to be completed on time later this year. Dewatering of the circular clarifier, aeration basin number1, demolition and removal of circular clarifier and its mechanisms including the fixed bridge and backfilling of the floor has already been completed. Reinforcement steel installation is on-going and pouring of the new sloped concrete floor with new sludge pit is underway.

This project is being undertaken within an operational **WWTP**. And as will be seen from the pictures the all the new work is surrounded by operational process. While the project is in progress, **PEP** has thus far ensured there has been no disruption to **WWTP** operations. **PEP** will continue to ensure that the operations is not disrupted in the future as well.

**PEP** Project Manager, Mr. Earl Bidos noted that the project has been progressing well. This is not just due to the efforts of the **PEP** team, but also that the **CUC** team. **PEP** has established a harmonious working relationship that with its client **CUC**. **CUC** is being represented by its Project Manager Mr.

Kennet Jann R. Bernardo with the guidance of their Chief Engineer Mr. Larry Manacop. Both have been instrumental in establishing and maintaining this harmonious relationship. In keeping with its motto "**Entrust it to us – we will Deliver**", **PEP** will ensure this project is also delivered safely on time and in accordance with the technical specifications.



*The current aerial photo of the main circular clarifier. **PEP** is working in the centre part.*



(source Moerk water)

Moerk Water has had a busy start to the year, designing and constructing renewable energy powered water treatment systems for clients across the Asia Pacific. One of Moerk Water's latest projects has been supplying a farming community in Kiru, Central Province, Papua New Guinea with a source of clean water for drinking and agriculture. In late 2022, **Barbara, our Director of International Business Development, visited the community in Kiru to discuss potential treatment options.** The wells in Kiru, which are the main source of water for the community, are contaminated with sediment and bacteria. A collection of not-for-profit organisations, including the Mercy Reach Foundation, Hope Foundation and Infuse Café raised funds to cover the capital costs of the water treatment system for Kiru. The community will use the proceeds from agricultural sales to cover the maintenance cost of the machine. They also will build facilities to host guests. **For the first time in history, they will have safe drinking water from groundwater on their property.**



*Pic: Farmers at Kiru "Healing The Land Ministries HTL" with First and Second Secretary of Hon Sir Ano Pala, Minister for Mining and Member for Rigo, Central Province.*



**Moerk Water has designed a containerized, solar powered, plug and play solution which uses a combination of media filtration and UV LED disinfection technology to treat the well water in Kiru.** Moerk Water decided to use UV LED for the disinfection process to ensure the system was chemical free. UV LEDs have several advantages over traditional mercury lamp UV systems including that they do not require warmup time and can instead instantly sterilize water, UV LEDs are more durable than traditional quartz sleeve mercury lamps and the LED UVs do not contain heavy metals. **The containerized system designed and built for Kiru consisted of 2 x 4500 L storage tanks, a self-cleaning filtration system and 2 x UV LED based disinfection systems.** The contaminated Kiru well water is filtered and disinfected before being pumped to the storage tanks within the container. The water is then pressurized for distribution and disinfected a second time for use as drinking water. The containerized system is currently on its way to Kiru and will be installed in the coming months.

Over the last few months, the Moerk Water engineering team have also been hard at work redesigning our community scale seawater desalination plant based on our customers' feedback and our ongoing in-country experiences. **Moerk Water believes that the community seawater desalination unit, which has been designed to be robust, reliable, and easy to use, has an important role to play in solving the water crisis being faced by many Pacific Island Countries.** Central to the Moerk Water design philosophy is constantly improving our products to



**make sure they are fit for purpose and represent the best value for money.** The new iteration of the 250 L/hr seawater desalination system includes the replacement of some components with parts which are easier to procure locally. The system has also been redesigned to make the pressure switches easier to service and the size of the electrical enclosure has also been increased.



Upon completion of the design, Moerk Water engineers began the construction of the new prototype machine. Although the new desalination system is slightly longer than its predecessor, it is still man portable which is an essential consideration for our community scale units. The system is also equipped with remote monitoring and control capabilities allowing our clients or the utilities who administer these machines to remotely monitor the system and determine when servicing or maintenance will be required. New renewable energy systems have also been designed to power the community scale seawater desalination system allowing it to be powered by either solar, wind or a combination of solar and wind energy. This has come about due to requests from our clients to supply wind systems and to provide units with longer daily operating hours.

Moerk Water will be attending the **PWWA conference in Palau** in August this year. **Our new general manager Richard Ashley** will be attending along with our **Director of Water Chemistry Dr Mat Francis**. **Come visit us at booth number 1 and have a chat with us about sustainable water treatment solutions.**

Please reach out to us, we are based in Perth, Western Australia: [www.moerkwater.com.au](http://www.moerkwater.com.au)



## Pacific Region Infrastructure Facility – PRIF

(source Pacific Region Infrastructure Facility)

### Strengthening Asset Management in the Pacific Water Sector

PRIF and the Pacific Water and Wastewater Association (PWWA) are working as partners to strengthen institutional capacity in the Pacific water sector for asset management, planning and execution.

On 29 June 2023, PWWA council met with the PRIF team to discuss the expected outcomes and to identify water supply utilities that will participate in certified training and mentoring program.

The program will build skills for assessing asset management maturity, strengthening asset registers and developing tactical asset management improvement plans.

The project is led by Lusía Sefo Leau PWWA CEO, and PRIF's Lorena Estigarribia, Christine McCormack, the project Team Leader, assisted by Talatalaga Mata'u, regional coordinator and the training institute APOPO (formerly known as IPWEA NZ) will work together with PWWA members to deliver this unique program.

For further information, please contact [enquiries@theprif.org](mailto:enquiries@theprif.org)





## Ministry of Natural Resources and Environment Samoa

(source Ministry of Natural Resources & Environment Samoa)

### COMMEMORATION DAY FOR WATER, FORESTS, WETLANDS AND SANITATION IN SAMOA 2023 – APRIL 4, 2024

Every year on February 2nd, International Wetland Day is observed to raise awareness on the importance of wetlands to our planet and highlight their vital role for both people and the environment while International Forest Day which is commemorated on March 21st, aims to inform people about the value of forests in sustaining life on Earth.

Sustainable forest management and resource use are crucial to halting climate change and promoting the prosperity and well-being of both present and future populations. Additionally, forests are essential to reducing poverty and achieving the Sustainable Development Goals (SDGs). Water Day on the other hand is celebrated annually on March 22nd to bring attention to the value of fresh water supplies. As part of the 2030 Agenda, the world agreed to SDG 6 in 2015, which calls for everyone to have access to and responsibly handle water and sanitation by the year 2030.



The Government of Samoa through the Ministry of Natural Resources and Environment has chosen to support quarterly commemoration days as part of the Government's efforts to align its national environmental initiatives with global strategies. With the aim of enhancing understanding on the significance of natural resources and climate, this year's National theme is "Accelerating Actions to Restore Wetlands, Forests and Water Resources for a Healthy Samoa" which aims to promote complex interaction among the government, communities and all key stakeholders which will allow for informed actions and strategies to address the current issues with natural resource management.



As part of the event, the 3 million National Tree Planting Campaign 2022–2028 Logo together with the Groundwater Resources information poster and a number of educational materials specific to water and forest resource management were launched as part of the commemorative activities. According to Toeolesulusulu's remarks he stated that, "in the past we witnessed the effect of climate change, cyclones and flash floods have had major impacts on the economy of Samoa, as these extreme events caused major damages to infrastructures, water, hydroelectric, and transport systems. These statistics of past events are essential to our national policy and planning work, to help address the adverse pressures on our natural environment. They help bring to

light the reality of issues so that we are better able to adapt and act.

As such, the Government of Samoa together with its development partners have strategically invested into natural resources and climate change programs, including tree planting campaign, sustainable land-use initiatives to ensure the protection of critical upland forest areas, so as to maintain ecological services such as water supply, natural flood control, native species habitats, and many others”. The Vaipu Baseline Survey Report and Management Plan were also launched as a commendable effort towards understanding, conserving, wise use and restoring these vital habitats. These report showcases the current status of the Vaipu Swamp Forest, providing insights into their ecological and socioeconomic importance.

The Ministry wishes to acknowledge the continuous support from our development partners and the local community for their unwavering support and continuing cooperation with water and forest resources management, wetlands conservation and sanitation services in Samoa.





**Registrations are now open.**

**Please visit our website to download registration form.**

**PACIFIC WATER AND WASTEWATER ASSOCIATION SECRETARIAT**

P.O. Box 868  
L4 FMFMII Building  
Eleele-fou, Apia  
SAMOA

PH: +685 30326

E-mail: [info@pwwa.ws](mailto:info@pwwa.ws)  
Website: [www.pwwa.ws](http://www.pwwa.ws)