



WAI NEWS



ISSUE 5

THE OFFICIAL NEWSLETTER OF WATER AUTHORITY OF FIJI

NOVEMBER/DECEMBER 2014

Crisis management at emergency meeting

AN emergency meeting of the Water Authority of Fiji (WAF) executive management and engineers took place early on Sunday morning December 7th where the Honourable Pio Tikoduadua, Minister for Infrastructure and Transport, was briefed by the WAF CEO Mr Opetaiia Ravai on the collapse of the main wastewater trunk line carrying all untreated waste from the greater Suva area to the Kinoya Wastewater Treatment Plant.



WAF Chief Executive Officer, Mr Opetaiia Ravai and Chief Operating Officer, Mr Laxman Attanayake, brief the media on the extent of the emergency. (Inset) WAF CEO (foreground) and WAF Acting GM Production, Mr Sosiveta Turagaviu, inspect Cunningham Creek.

completed. The total cost for repairing the damage will be known soon.

"This is an example of the deteriorated state of the country's water infrastructure," said Mr Ravai. "We are grateful to the Government for recognising the state of the water infrastructure that will now enable us to begin upgrading our systems to protect against these types of setbacks."

Because of the attendant health and environmental implications, WAF consulted the relevant Ministries regarding the hazards through DISMAC and WAF's line Ministry.

Working all night

Engineers worked all through the night of the 6th to design a temporary solution after the pipe collapsed as result of the storm that pounded Fiji on December 5th and 6th with strong winds and driving rain, severely impacting the Suva water and wastewater trunk lines.

Because of the storm, floodwaters may have caused the break in the pipe, with wastewater being discharged directly into the Cunningham Creek at the four miles bridge and flowing in the Laucala Bay area.

Consultation with utilities

The Fiji Roads Authority and MWH Global were consulted to investigate structural solutions and the Fiji Electricity Authority assisted by removing live, overhead wires at the work site so the repair work could begin.

The repair works have been

Further disruption

The storm also caused a further disruption in the Tamavua Water Treatment Plant, impacting some 112,000 customers in Tamavua-i-Wai, Delainavesi, Lami and Veisari to Togalevu when two major trunk lines supplying Tamavua Water Treatment Plant were washed away in a landslide, decreasing water intake by 60%. Water carting was immediately implemented to assist these customers.

Water Authority of Fiji needs addressed in Budget

IN thanking the Government for its allocation of \$239 million to the Water Authority of Fiji, CEO Mr Opetaiia Ravai, said that this recognition of the importance of improving infrastructure "will go far towards helping Fijians receive consistent and sustainable access to water."

The budget reflects the WAF Master Plan that focuses on the next 20 years, with its primary objective, the provision of consistent, quality water and wastewater services, 24 hours a day, seven days a week.

"Over the years, WAF

has managed with budget constraints that have not allowed it to sufficiently address its problems. This budget allocation will allow us to work towards satisfying the needs of not only our customers, but also those of people living in the more rural areas of the country."

"There is also an important need to upgrade our current water treatment, distribution and storage systems and to improve our current wastewater system," said Mr Ravai.

There will be opportunities



There is an important need to upgrade the water distribution system. Here WAF employees work around the clock to repair the trunk lines washed away by a landslide.

for both local and overseas companies to participate in WAF projects, as there will be multi-million dollar development

in the construction of dams and reservoirs, large pipe laying, as well as numerous smaller projects.

From the CEO's desk

AS the Christmas season is upon us, it is timely to reflect on the year that is drawing to an end.

It has been a year of challenges: the aging infrastructure inherited by the Water Authority of Fiji (WAF), insufficient funding to adequately and definitively address these shortcomings, a prolonged dry spell that seriously impacted our capacity to supply potable water to both WAF customers and rural dwellers who are reliant on alternative water source schemes.

Then, just as we looked ahead to the holiday season, a storm has caused serious disruption to the supply of clean water to parts of Suva and the provision of wastewater services to the greater part of the city.

Despite these emergencies it has also been a year of progress. We are beginning to enjoy the benefits of technical training with Fukuoka City Water Works Bureau.

Our twinning programme with Hunter Water is resulting in relevant, up-to-the-minute training for WAF staff members,

which in turn has contributed to the finalisation of the WAF 20-year plans, in itself, no mean feat. And a similar programme with Sydney Water is also beginning to bear fruit.

We have reduced intermittent supplies by 61.91% and are on the verge of the roll-out an innovative, customer-friendly billing system.

We are grateful to Government for the funds allocated for 2015 that will eventually make the cry of 'outdated infrastructure' a thing of the past. We must meet the demands of spending this funding wisely, for the best possible



Mr Opetai Ravai.

outcome for the people of Fiji, while exercising due diligence and good governance.

To the Board, the management team and every WAF staff member, Season's Greetings. Return from a safe, happy holiday ready for the exciting year that lies ahead.

Electro-magnetic meters for accurate measurement

THE first of 93 electro-magnetic flow meters have been installed by the Water Authority of Fiji (WAF) Projects Team.

Mr Masimino Raga, WAF Project Manager, Intermittent Supplies, said that the installations followed on from the three-day training and familiarisation conducted by Mr Reuban Witt of Siemens (N.Z.) Ltd, suppliers of the meters and attended by 30 WAF personnel from the Central/Eastern, Western and Northern Divisions.

There are two types of electro-magnetic meter being installed. The first is mains-powered and is used at reservoirs.



Siemens Technical Sales Executive, Mr Reuban Witt, demonstrates the correct installation of an electro-magnetic meter.

The second is type powered by batteries that have a minimum 10-year life expectancy,

making them suitable for use in even the more remote reaches of the water reticulation system.

"Unlike the old, mechanical meters that rely on the flow of water to function and are prone to becoming blocked, that can get blocked the new sophisticated meters give a more accurate reading.

"They are being installed with one at the reservoir, one in each main conduit and then one in each of the District Metering Areas (DMAs) in order to better detect, analyse and remedy intermittent water supply," said Mr Raga.

Action plan to improve effluent quality

AS part of his training in Fukuoka City, Japan, in the Operation and Maintenance of Sewerage System, Water Authority of Fiji (WAF) Team Leader Wastewater Central & Eastern, Mr Matapule Finiasi, was expected to prepare an action plan based on what he had learnt that would address a current existing challenge in waste water treatment within the context of Fiji.

"The theme of my action plan is to implement the disinfectant treatment at Kinoya wastewater treatment plant, as at present our processes are up to secondary level only.

"The benefits that would result from its implementation would include the reduction of faecal coliform in the effluent water discharged into Laucala Bay, thus improving its quality. This is also in line with the WAF mission statement of being environmentally focused," said Mr Finiasi, who has presented his action plan to senior management for approval.

Faecal coliform is bacteria found in wastewater or sewerage that can pose a risk to human and marine life if not properly treated.

Mr Finiasi was able to attend



Mr Matapule Finiasi (standing 3rd from left) with fellow participants and trainers at the Operation and Maintenance of Sewerage System training in Fukuoka, Japan.

the training conducted by the Fukuoka Department of Roads and Wastewater Bureau thanks

to the sponsorship of the Japan International Cooperation Agency (JICA) Training and Dialogue

JICA pilot programme to reduce leakage

WORKING with Japan International Cooperation Agency (JICA) a minimum of 15 Water Authority of Fiji (WAF) workers from its Western operations in Nadi and Lautoka who are engaged in maintenance and management of water pipes will receive technical training at the Fukuoka City Water Works Bureau in Japan thanks to a major three-year pilot programme to upscale the training of workers to reduce the 49% loss of water that the country now experiences primarily due to leaks.

Each of the workers would spend 1½ weeks in Japan receiving technical training but much of their work will be on the ground at the pilot project.

On their return they would work with Japanese experts from the Fukuoka Bureau in the implementation of their training.

“The Bureau is one of the best in the world in ensuring minimum water leakage with an annual loss rate of 2%. We are convinced that with proper training of our technicians we can reduce the water leakage in Fiji to 20% over the next two years - that would be a huge savings in both money and water. It will also mean that WAF will now have a number



(From left) Mr Ilisoni Saladua, WAF Regional Manager West, Mr Taitusi Vakadravuyaca, WAF GM Projects and Mr Mosese Rawaqa, WAF Team Leader Operations, Nadi/Lautoka with JICA Training Coordinator Ms. Satoko Nisikawa.

of experts in leak detection at a level not previously available in the country,” said Mr. Opetai Ravai, WAF CEO.

He said that WAF has benefited from its relationship with JICA and the Fukuoka City Water Works Bureau that has already trained four of its staff in water and water related disciplines.

Mr. Ravai said the Fiji Government is working closely with WAF in supporting programmes to train staff overseas to gain international experience.

HR vision-gold for WAF



Mr Ravinesh Shankar, HR Manager.

WHEN training is on an ad-hoc basis, fees are paid, the participants attend external training but often there is no measure of the return on this investment. In contrast, when an organisation has a systematic training plan, it becomes possible to take better advantage of the training levy paid to the Fiji National University (FNU).

Newly appointed Water Authority of Fiji (WAF) Human Resources Manager Mr Ravinesh Shankar is already working on the plan and guidelines that will enable WAF to see the return on its training investment with FNU.

“We pay fees, we send the participants but what is our return on that investment? I want to introduce four levels of evaluation in all training: reaction, learning, behavioural and result evaluation to gauge the learning outcome and ensure that the training was effective and remedial action has been taken for improvements. This is my first priority,” said Mr Shankar.

His second priority is to introduce the Quality Circle concept at WAF. Quality Circles are formed of employees who meet at intervals to identify, discuss and solve problems related to their own jobs. The circles are small, autonomous in nature, usually led by a supervisor or manager and they present their solutions to management.

There is an annual Quality Circle competition facilitated by FNU and Mr Shankar is keen to see WAF compete.

As part of building “a mindset of inclusion,” he is also keen to encourage the members of the HR Team to compete in the various categories of the annual competition conducted by the Fiji Human Resource Institute.

“My vision is for WAF to win gold at both competitions and also to win the Fiji Excellence in Business Award. To achieve these goals we need the support of all staff and teamwork at all levels,” said Mr Shankar.

WAF represented at Caribbean Workshop



Cyclones and extreme weather events impact water supplies in Pacific Island nations.

CYCLONES, floods, droughts, earthquakes, tsunamis, volcanoes all have an impact on Pacific Island nations, and now extreme weather events are being exacerbated by climate change. In turn, these events have an impact on the supply of fresh, clean, safe water to the citizens of these nations.

Set within the Pacific context, the forward planning by the Water Authority of Fiji (WAF) to mitigate such impacts on the supply of water and wastewater services in Fiji took centre stage recently in the Bahamas when Water Authority of Fiji (WAF) CEO Mr Opetai Ravai made his presentation at the “Risk Management and Natural Disasters Workshop” held on Paradise Island, 6th -10th October.

Risk management measures

WAF’s risk management measures to mitigate against climate change, drought, cyclones and flooding include appropriate provisions made within the Master Plans,

water modeling for the simulation of hydraulics, the building of cofferdams at existing water sources, the identification of a new water source and the Collaboration annual review of the Water Safety Plan for all Water Treatment Plants.

Collaboration

The measures also include collaboration with stakeholders such as DISMAC and the Fiji Meteorological Office, the establishment of water conservation programmes, a Water Conservation Committee and a Disaster Risk Management Committee. A Water Supply Management Plan is being developed and the Authority anticipates the establishment of a National Water and Sanitation Committee.

National forum

This will include NGOs and a technical secretariat tasked to assist the committee and Government in the development of comprehensive water legislation under the National Water Resources and Sanitation Act, as well as serve as a national forum for the discussion of water resources issues in general.

The workshop was co-organised by the regional platform of Water Operators’ Partnerships in the Caribbean (Cari-WOP) and Water Operators’ Partnership in Latin America and the Caribbean (WOP-LAC) to provide a platform where knowledge and best practices from a management and planning perspective could be shared.

Gentrack to improve service



To access improved communication customers can update their information at Customer Care Services.

FOLLOWING the week-long discovery workshop in September conducted by the Gentrack specialists, it is expected that the Water Authority of Fiji (WAF) will 'go live' with its new Gentrack billing system in early in 2015.

"This so we can improve how we interact with our customers and should also have an immediate impact on our revenue streams,"

said Mr Sekove Uluinayau, WAF Team Leader, Billing.

"Our customers can expect improved billing services and quick repair and installation service turn-around-time as the Gentrack system allows for a strengthened monitoring system.

"WAF customers will also enjoy the benefits of e-billing, being able to check their accounts on-line via the web portal and SMS alerts for accounts due and for any major disruption to the supply of water," said Mr Uluinayau.

To access this improved communication with WAF, customers can update their information at any WAF Customer Care desk or by downloading a form at <http://www.waterauthority.com.fj/en/forms/>

CEO re-elected



FOLLOWING the successful 7th Pacific Water Conference & Expo held in American Samoa recently, Mr Opetai Ravai, CEO Water Authority of Fiji (WAF) has been re-elected for a second three-year term as Chairman of the Pacific Water and Wastes Association (PWAA).

PWAA was established in 1994 to support the Pacific region in meeting its water challenges. Comprised of 24 water utilities and 52 allied members made up of Government ministries, it also includes Australian, New Zealand and other regional suppliers.

Water Authority of Fiji better connected with MPLS



WAF ICT Manager, Mr Ronal Nair and his team lend their expertise to all WAF divisions.

RESPONSIBLE for 29 sites across Fiji, the IT Division at the Water Authority of Fiji (WAF) keeps more than a thousand users connected to the organisation's network.

the other 28 sites connected via fibre-optic telecommunication links called Multi Protocol Label Switching (MPLS). Getting the sites up and running took about nine

months of hard work," said Mr Nair.

"The user is not directly connected into one site, but connects to an overall structure laid out by the Internet Service Provider (ISP) vendor.

"With MPLS all sites find the shortest route to communicate with other sites. Should an exchange point be off-line for any reason, it does not impede the communication of any other sites," said Mr Nair.

The IT Division is on call 24/7 because IT becomes the core

of all WAF's Strategic Business Units (SBUs).

"If IT goes down, so does the Finance Division, which affects the Production Team and that affects our customers. Likewise, if IT goes down, so does the Billing system and Customer Services, also affecting our customers.

"The upgrade to MPLS has been one of IT's biggest achievements as we are eliminating 'down' time and increasing the internet speed at the same time," said Mr Nair.

A grateful customer



Primary school poster winners

WITH a total of 200 poster entries, 88 Central/Eastern Division primary schools responded to the Water Authority of Fiji's (WAF) 'Importance Of Water Conservation' poster competition.

In awarding the prizes, WAF CEO Mr Opetai Ravai thanked the participating schools and all the children who entered this first WAF poster competition for the high standard of their entries and



The winning artists with WAFFY and CEO Mr Opetai Ravai.

for their efforts to help educate the public about water conservation through the contest.

The prizes were \$100 first prize, \$50 second prize and a WAF gift hamper for third prize for all categories.



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