

WATER MATTERS

VICTORIAN WATER INDUSTRY ASSOCIATION NEWS

Volume 8 Issue 1 Summer 2007

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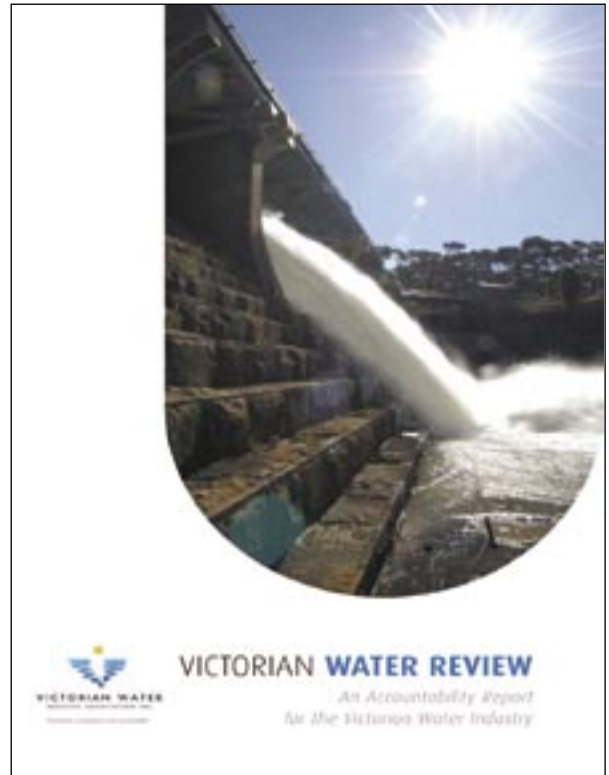
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2005/2006 VICTORIAN WATER REVIEW

The 2005/2006 edition of the Victorian Water Review is now available. For the first time the Victorian Water Review is available free of charge on the VicWater website at <http://www.vicwater.gov.au/?sectionid=659>

The Victorian Water Review continues to display how far the water industry has progressed, especially in the quality and level of service provided to its customers. Importantly the report also highlights areas of concerns for the industry and where improvements in performance need to be made and maintained.



Key industry performances in 2005/2006 include:

- 99% of the State's population received water meeting E. coli standards.
- Lost Time Injury Frequency Rate decreased to 7.7 (from 11.5 in 2004/2005).
- State average water consumption per residential property increased to 204kL/residential property (from 201kL in 2004/2005).
- 18.5% of the State's wastewater was recycled (from 15.8% in 2004/2005).
- The water industry spent \$738.4 M on capital expenditure programs (from \$792.5 M in 2004/2005).

This year the Victorian Water Review contains a reduced number of KPI's but has included Case Studies that provide important information on water businesses' performance throughout the year. Congratulations must be given to the Performance Measurement Task Group for their time and effort in producing this year's Review.

“from
the CEO’s
desk”



Welcome to the summer edition of Water Matters. I am sure that most people took the opportunity for a break over the Christmas period and have returned fresh and ready for an exciting 2007. There will definitely be a range of challenges to keep us all well occupied during the year. Unfortunately, the year commenced with extremely severe bushfires that have heavily impacted on many individuals and water businesses. Our sympathy goes to all those who have suffered from those events over recent weeks.

The start of 2007 sees a continued increase in the levels of water restrictions across the State as the traditionally dry summer months have an impact on the already low water storages. It is certainly

a difficult time for water businesses and their customers and has highlighted the importance of clear customer communication.

One very positive outcome has been the increased awareness of water efficiency and the very genuine efforts being shown by most Victorians to reduce their water consumption. I am sure that this increased education and reduced consumption will help us get through this critical period until inflows return to a more ‘normal’ pattern.

A quick reminder of the dates for the main VicWater conferences planned for this year:

- ◆ Finance Managers Workshop
31 May and 1 June 2007
- ◆ Sustainability Seminar
15 May 2007
- ◆ VicWater Annual Conference
13 and 14 September 2007

These three major events continue to grow and are a valuable source of information and networking within the industry.

I would also like to wish former VicWater staff member Jason Walker all the best for in his new role at the Plastics and Chemicals Industries Association (PACIA) as the Sustainability Manager. Jason has left after four years at VicWater and has made a valuable contribution to the industry during that time.

On a much brighter note, VicWater is pleased to welcome Leanne Cini who has been appointed to fill Jason’s vacancy. Leanne has been working at Coliban Water as a Project Engineer and will bring a range of skills to VicWater.

I look forward to meeting with many of you in our Task Groups and other activities during 2007.

GIPPSLAND WATER HELPS THE CAR WASH INDUSTRY GET THROUGH WATER RESTRICTIONS

Working with the Australian Car Wash Association (ACWA), Gippsland Water recently hosted a presentation about a new Car Wash Rating Scheme, inviting local car wash businesses to attend. The scheme encourages businesses and their customers to save water, and aims to educate the car wash industry to be water efficient and adhere to water restrictions that are currently in place.

Adam Stone and Dianne Ross from the ACWA spoke at the presentation to discuss the Car Wash Rating Scheme

with owners of car wash businesses. The voluntary scheme rates the amount of potable water used in an average car wash from one to five stars. The Car Wash Rating Scheme involves a thorough audit process, as well as providing signage so that the public can clearly identify which businesses are taking part in the water saving scheme.

For instance, premises with four star signage would mean that the business uses under 70 litres of potable water per car for a standard wash. Businesses also receive half a star if they take up

other water conservation measures such as using tank water instead of mains water.

Gippsland Water Chief Executive Officer John Mitchell said that Gippsland Water has been proactive by contacting car wash businesses and organising a presentation about the Car Wash Rating Scheme before water restrictions take full force. “We are taking a proactive approach, helping businesses meet requirements of water restrictions, and ensuring that it is fair and equitable across the board,” Mr Mitchell said.

UPCOMING VICWATER EVENTS

FINANCE MANAGERS WORKSHOP

Arrangements have commenced for the Finance Managers workshop to be held on 31 May and 1 June 2007 at Crest on Barkly in St Kilda. Planning for the event was a feature of the Financial Issues Steering Committee (FISC) Meeting of 6 February 2007.

SUSTAINABILITY SEMINAR

The Sustainability Seminar will be held on 15 May 2007 in Melbourne. The Sustainability Task Group met in December 2006 to start planning this annual event.

BUSHFIRES AND THE IMPACTS ON DRINKING WATER SUPPLIES

Water users in north eastern Victoria should be on the lookout for changes in water quality in streams following storms or rainfall events. The recent bushfires have removed protective vegetation from catchments. Even relatively small falls of rain can wash ash and sediment into streams and affect the quality of water supplies. With the very large

areas burnt in the recent bushfires the likelihood of this type of event is now quite high. A large rainfall event, or storm, could trigger a large flow of poor quality water into one of a number of water storages in the region. The consequences of this could include reservoir siltation, fish deaths or algal blooms. Goulburn Murray Water, North

East Water, Goulburn Valley Water, Catchment Management Authorities and government agencies are working together to monitor changes to water quality. People drawing water directly from streams are advised to monitor their supply source and make alternative arrangements if water quality deteriorates.

VERY DRY – VICTORIA IN 2006

The Bureau of Meteorology (BOM) has released its annual climate summary of Victoria. The key findings were:

- Victoria experienced a very dry year in 2006, with a number of places receiving record low annual totals and a number of other places receiving less than half their usual allocation.
- Day-time temperatures averaged mostly about a degree above normal, whilst night-time temperatures averaged about half a degree below

normal. There were some severe frosts during the year.

- A feature of 2006 was the frequency of intense anticyclones that affected Victoria's weather. When these anticyclones developed well to the south of the continent, they drove some very cold air across the State. By contrast, on other occasions they developed over the Tasman Sea, and drove hot air from the inland across Victoria.
- In Melbourne 2006 will be remembered for being the 10th

consecutive year with below normal rainfall. Both day-time and night-time temperatures averaged slightly above normal, although there were some notable individual extremes - for example, the earliest 30 degree+ day in Spring, the earliest 35 degree+ day in Spring, and the coldest Christmas Day on record.

- Record lowest yearly total rainfall was experienced at Nhill, Lake Eildon, Ballarat, Sale, Bairnsdale and Hamilton.

INFLOWS AT RECORD LOW LEVELS

The extreme drought currently being experienced in many parts of Australia is unprecedented in its duration and severity. Drought conditions throughout large areas of the Murray-Darling Basin are worsening with rainfall in some catchments, over the nine months March to November 2006, the lowest on record. According to the latest Drought Update from River Murray Water, an internal business division of the Murray-Darling Basin Commission, released in December 2006, higher than average temperatures and exceptionally dry catchments have kept inflows to the Murray River system at record low levels.

According to the latest update, inflows for the season June to November 2006 have been only 610 GL which is 56% of the previous recorded minimum of 1090 GL observed in 1902 and only 7% of the long-term average of 8400 GL for the same period. The Bureau of Meteorology has advised that the El Niño continues to strengthen and responds to the question "What does this mean in Australia?" with "Generally speaking, the main impact on rainfall is during winter and spring, with a switch towards wetter conditions having been common in January or February during previous El Niño events." Such a switch to wetter conditions is not guaranteed, however, and this is

reflected in the near-neutral rainfall outlook for the 3 months December to February 2006.

In Melbourne, the last 10 years has seen streamflows to the reservoirs being below average. For spring 2006 when reservoirs usually recover, rainfall in the catchment was 53% of the weighted average of the past 30 years. The best spring month was November, with 69% of the average rainfall, with October the worst, recording only one-third of the average rainfall.

HOLIDAY MAKERS AND WATER RESTRICTIONS

Over the summer period VicWater embarked on a major advertising campaign to increase the awareness of water restrictions that may be in place at holiday destinations. Holiday makers have the potential to place increased pressure on water

resources in regional Victoria during the holiday season. The campaign saw advertisements placed in Melbourne newspapers as well as VicWater Chairman, Dennis Cavagna speaking frequently to the media on the need to continue to save water whilst on

holidays. Information on the different stages of water restrictions and links to water businesses across the State can be found on the VicWater website www.vicwater.org.au.



Save water on holidays as well

All of our towns, especially in coastal areas are experiencing one of the driest years on record. Please check if water restrictions apply where you are staying. In some towns, watering gardens and lawns is banned and cars and boats cannot be washed.

Have a great time, but please don't take a holiday from saving water.

USE LESS WATER

For information on the different stages of water restrictions and links to water businesses across the State, visit www.vicwater.org.au

VICTORIAN WATER
INDUSTRY ASSOCIATION INC
The Water Corporation of Victoria

WATER EFFICIENCY TASK GROUP INFORMATION BULLETINS

The Water Efficiency Task Group has produced two Information Bulletins that may assist in better understanding water use, in particular water use in rural Victoria. The 'Water Efficiency in the Rural Sector' Information Bulletin provides an overview of water use in rural agriculture including surface water diversions, irrigation system deliveries and ground

water, and also identifies opportunities for water savings and available useful resources on water saving projects and initiatives.

The 'Virtual Water' Information Bulletin provides important information on the amount of water used to produce items and makes the link between consumption patterns and water use.

The Information Bulletins also contain useful links to relevant projects and research.

Both Information Bulletins are available on the VicWater website at www.vicwater.org.au. From the Home page go to: Task & Working Groups > Water Efficiency Task Group (WETG) > Information Bulletins

CONGRATULATIONS TO NATHAN AND ELIZABETH

Congratulations to VicWater staff member Nathan Smith on his marriage to the girl of his dreams, Elizabeth Fewchuk in a ceremony on the 6th January 2007 at Essendon Community Baptist Church. Nathan and Elizabeth have now returned from their honeymoon touring New Zealand.



NATIONAL AWARDS FOR GOULBURN-MURRAY WATER PROJECTS

Two Goulburn-Murray Water projects have been recognised for engineering excellence, taking out gold and silver at the annual Association of Consulting Engineers Australia Awards for Excellence in Sydney.

From entries all over Australia, for projects in metropolitan, regional and international locations, the judges presented a Gold Award to SKM for the Pyramid Creek Salt Interception Scheme in the environment category and a Silver Award to GHD for the Eildon Dam Improvement Project in the water category. The ACEA awards program is one of the industry's most prestigious recognising Australia's world-class engineering activities.

The Eildon project was undertaken by the Eildon Alliance, comprising GHD, Goulburn-Murray Water, John Holland and Hazell Brothers, and the Pyramid

Creek Salt Interception Scheme was managed by Goulburn-Murray Water on behalf of the Murray-Darling Basin Commission. The Pyramid Creek Salt Interception Scheme is a large-scale groundwater pumping scheme that

intercepts saline groundwater flows and pumps them to evaporation basins.

The scheme received more accolades last June when it won the Engineers Australia National Salinity Prize for



Salt Harvest

new technology and other practical outcomes tackling salinity. The prize was presented by the Governor-General, Major-General Michael Jeffery, at a ceremony at Parliament House in Canberra.

METHVEN ANSWERS AUSTRALIA'S WATER CRISIS WITH 90L OF WATER SAVING EVERY TIME YOU SHOWER!

Sitting as the flagship of Methven's commitment to luxury, water saving showers, the multi-award winning **Satinjet showers** offer a luxurious shower at a maximum rate of 9L per minute. Such is its careful engineering, and unique Twin-jet technology, some models will even work well at water delivery levels of just 7.5L per minute.

Based on Energy Australia's research, a standard shower running at 20L per minute will use 145.4L of water. Methven's Satinjet shower running at 7.5L per minute will only use 54.53L over that same time period – a massive water saving of 90.87L!

That's the equivalent of 45 two litre soft drink bottles! Every single time you shower.

For more information see www.methvenaustralia.com.au, www.satinjet.com.au or free call: 1800 035 330

Methven Satinjet's unique Twin-Jet technology directs two single jets of

water to collide, creating a 'flame of water' that is enveloping and gentle. It's luxurious, while operating effortlessly at watersaving levels of 7.5L per minute with a maximum of 9L per minute – easily attaining the maximum WELS rating of three stars. (Conventional showers operate at 22L per minute.)

Methven Satinjet is multi-award winning, collecting numerous national and international awards –including:

DesignEx –Best new Product, Bathroomware 2005

Chicago Atheneum - Good Design Award 2005

Australian Designmark Awards for Good Design 2005

Savewater Award – Highly Recommended in Product Innovation Category 2005



METHVEN

satinjet

Green Plumbers Award – Innovative Product of the Year 2005

New Zealand Best Wards – Highly Recommended 2005.

METHVEN SATINJET'S FEATURE WATERSAVING PRODUCTS:

Methven Satinjet Escape Hi-Rise Shower [RRP: \$300.00]

Methven Satinjet Genesis Rail Shower [RRP: \$330.00]

Methven Satinjet Futura Hand Shower [RRP: \$220.00]

Methven Satinjet Kiri Wall Shower [RRP: \$ 163.00]

TRAINING AND OH&S MATTERS

Steve Bird and Paul O'Brien made a presentation to the Office of Training and Tertiary Education (OTTE) on the training needs of the water industry just prior to Christmas 2006. Les Mathieson, CEO of East Gippsland Water and Chair of the VicWater Training Consultative Committee was to have been part of the presentation team but he unfortunately needed to remain in East Gippsland that day because of the bushfires.

The presentation focussed on the effects of climate change and the skills shortage on the water industry and the training-related implications of those effects. A text based report will be provided to OTTE by the end of February 2007.

The next meeting of the OH&S Network will be held in April 2007 at Phillip Island and will be sponsored by the Gippsland, East Gippsland, South

Gippsland, Westernport and Southern Rural Water Authorities. The meeting will address the issues of the new Consolidated OH&S Regulations and enhancements to the OH&S Benchmarking Project which the Network has been refining.

FIRST MILDURA IRRIGATION TRUST'S 17TH STREET SUB-SYSTEM REHABILITATION

Since late August 2006, when the First Mildura Irrigation Trust (FMIT) Board approved the works program for the high-pressure pipe lining of FMIT's 17th Street's sub-system, significant progress has been made. Pipe laying tenders were called and the successful contractor commenced pipe laying in late November. The new pipeline is a high-pressure system and replaces 20 kms of gravity distribution system, comprising 4 kms of earthen channel, 2 kms of concrete channel and 14 kms of ageing concrete pipes.

Complementing the new high-pressure system is a new pumping station, with 5 variable speed drive motors to achieve cost effective pumping. Works on the new pumping station are complete except for testing, which will occur

once the new 600-ML water storage is finished. Works on the water storage are nearing completion and water will be introduced by mid February 2007 so as to allow for formal commissioning of the new pump station. Pipe laying is scheduled to be completed in late May and this will allow the contractor to install the new irrigator connections in time for the new irrigation period. Irrigator connections will include magnetic flow meters capable of measuring low flows used for drip irrigation, up to the higher flow rates required by irrigators using overhead sprays.

Once operational, the rehabilitated distribution system will provide high-pressure water to 750 hectares of irrigable land and its 120 irrigators. In addition, domestic and stock consumers

and irrigation ratepayers will no longer rely on individual pumps to achieve pressurization. Subject to drought conditions, water availability will be 24 hours a day, 365 days of the year because of facilities provided by the 600-ML water storage.

FMIT has engaged Sinclair Knight Merz (SKM) to independently assess and determine the water savings from three separate water saving measures initiated by the Trust. Their recently completed report has identified a total of 5.906 GL of claimable permanent water savings from these measures.

The Trust acknowledges the assistance provided by the DSE's Water Sector Group in the assessment process undertaken by SKM. The FMIT Board has approved for portion of the proposed water losses, identified through the bulk entitlement process, to be made available for sale through the National Water Initiative tender process.

In addition to the savings identified by SKM in the earlier measures, the Trust is also confident that further water savings of 2.0 GL are potential as a result of the 17th Street rehabilitation project. As this project is entirely funded by the FMIT, all water savings recovered through the bulk entitlement process will be retained by the Trust.

The FMIT is currently completing the formal process of having these savings recognised pursuant to the bulk entitlement procedures and receiving Ministerial approval for the changes.



A View of the new pump station

DAMS WORKING GROUP

- The Dams Working Group is a proactive forum for discussion and development of all aspects of dams including planning, construction, risk assessment and safety upgrades. Dam owners outside the water industry are also encouraged to attend. Representatives from AGL Pty Ltd (Hydro Electric Power Generation) regularly attend group meetings. DSE is also a major participant in the Group. The Dams Working Group recently identified a gap in the National Water Training Package in regard to dams management and operations practice and sought and received funding for the development of a course in High Hazard Dam Emergency Management Exercising
- Following extensive development and negotiation, the course has been accredited within the Victorian system. Registered training organisations will be contacted to encourage delivery of the course. The aim of the course is to equip operators and emergency response co-ordinators with the knowledge and training to better manage their roles in a dam emergency response.
- Following the decommissioning of several dams in Victoria, the Group also saw the need to develop a Dams Decommissioning Guideline. Through funding from DSE and work undertaken by consultants URS, the Decommissioning Guidelines have been finalised and will be available in the near future. These Guidelines have been prepared to raise awareness of potentially relevant issues and not as a prescriptive process of how to decommission a dam. This approach allows a Project Manager to develop an accurate model of their real world context rather than assuming conditions are favourable or adverse to the proposed works.
- The prolonged dry period presents its own risk to earthen dams as the moisture content of the dam's clay core can lower, thereby potentially

altering the water tightness of the structure. Dam owners should pay particular attention to this issue when a dam commences to refill. The refilling of dams should be undertaken as slowly as practical, with vigilant monitoring of seepage and cracks.



*A parched Sunday Creek Reservoir near Broadford
– Currently holding 17% of storage capacity*

VICTORIA AND NEW SOUTH WALES FINALISE WATER TRADING

Permanent interstate water trade between Victoria and New South Wales commenced on 1 January 2007. Both Victoria and New South Wales have accepted the Australian Competition and Consumer Commission (ACCC) recommendation that exit and termination fees, which apply when water permanently leaves a district, should be separate from the sale of water. As an alternative to paying a termination fee, the states have also agreed that sellers of water can continue paying annual access/delivery fees on an ongoing basis. The States have committed to the implementation of permanent interstate water trading as follows:

- Access fees and termination fees will be calculated and implemented by 1 July 2007 and exit fees will also be removed by this date.
- During the period up until removal of exit fees, exit fees may be avoided by buyers and sellers contracting to use temporary trade processes followed by a permanent transfer.
- The factor used for the calculation of termination fees will be set at a maximum multiplier of 15 times the access fee. This ensures sufficient funds to maintain water supply infrastructure over a suitable period and for structural readjustment so that remaining users are not required to absorb these costs.
- A review of termination fees will be completed by 1 January 2009. The review will include an assessment of the multiplier used in calculating termination fees. The ACCC will be asked to contribute to this review.
- The details of costs to be included in access fees and the possibility of ongoing usage of shadow access fees are to be clarified by March 2007, with the ACCC being asked to contribute to this work.
- Irrigation businesses will be allowed to offer other options for permanent trading to suit their businesses, provided they also implement the ACCC recommendations, to enable the buyer to choose.
- The arrangements will be included in a protocol to Schedule E of the Murray-Darling Basin Agreement by March 2007.
- An independent body or bodies will be commissioned to monitor, assess and report by August 2007 on compliance with the agreement.

MILLIONS OF LITRES SAVED WITH NEW REUSE IRRIGATION SCHEME

Warrnambool Golf Club is now using reclaimed water to keep their greens in shape thanks to a new joint venture reuse irrigation scheme with Wannon Water and Fonterra.

Wannon Water, Fonterra and the Warrnambool Golf Club have worked together to introduce this new and innovative water conservation scheme that will replace use of the city's drinking water and the need to use bore water to irrigate the course. The scheme is the first of its kind, pioneering the use of condensate water on a golf course.

Condensate water, water evaporated off milk to create dried milk powder, from the Fonterra dairy factory in Dennington is being diverted from Wannon Water's Water Reclamation Plant directly to the Warrnambool Golf Club. The water is

collected and stored in a lagoon at the Golf Club and is used to irrigate the course via a new pump and automated delivery system. This has required a major upgrade with the Club investing around \$720,000 and will result in millions of litres of potable water being saved.

Wannon Water Chairman, Harry Peeters said; "The new reuse irrigation scheme means less treated water from the city's drinking water supply is being used by the Warrnambool Golf Club, a major saving in treating water to drinking standards." The new scheme also means the Golf Club now has a secure fit for purpose water supply year round to keep the course in top condition. The bore water previously accessed to augment supplies of potable water was highly saline and was damaging to the greens;

the new scheme eliminates this problem.

Warrnambool Golf Club Secretary Manager, Garry Parsons said; "80 megalitres of reuse water will be used via this new irrigation scheme, that means there will be a huge saving for our city's water resources and we will be able to access suitable water to keep the greens in top condition year round."

Fonterra Site Production Manager, Rob Howell said that in a drought environment Fonterra is constantly seeking new ways to reuse the water required for everyday factory production. He said: "The reuse of this water is beneficial to Fonterra in several ways, but most of all we are pleased to be a part of an innovative water saving scheme that has practical benefits for the Golf Club, Warrnambool residents and the environment."

PROMOTING THE WATER INDUSTRY

Western Water's Gareth Ryan is one of only two people selected to feature in a Federal Government promotion of career opportunities in the water industry. The 27-year-old operator at Western Water's Melton Recycled Water Plant spent a day before the cameras for a video that will target secondary school students across Australia. A camera crew from the Adelaide-based Government Skills Australia flew to Melbourne to interview and film Gareth at his Surbiton Park workplace.

The government agency has been established to identify skills shortages, emerging trends and labour market information and develop resources to attract young people into key industries. The promotional video will be pitched at students in Years 8 to 12 with the aim of raising interest and awareness of job opportunities in the water sector. Team Leader of the Melton and Bacchus Marsh recycled water plants, Rod Curtis, said Gareth's selection recognised his skills and commitment to delivering an essential service to the community. "The video also highlights

the variety of work available in the water industry, promotes Western Water and its employees and showcases the Melton area," he said.

Gareth is completing a diploma in conservation and land management. He is part of the team responsible for the new multi-million dollar Class A recycled water plant at Surbiton Park, which will serve Eynesbury and future development at Melton South. Rod also was recognised recently, winning the prestigious Australian Water Association Operator of the Year award from candidates across Victoria.

WATERAID AUSTRALIA AND VINIDEX NATIONAL GOLF DAYS

Vinidex and WaterAid Australia are pleased to announce a new series of Golf Days to be conducted in 2007 following on from the success of the AWA National Golf Days which has raised over \$88,000 for our projects in Papua New Guinea. Golf Days will be conducted from March to November by WaterAid Australia Member organisations.

WaterAid Australia has just recently opened an office in Dili and has gained government approval to work in

Manatuto and Liquica Districts of Timor-Leste. WaterAid Australia has now completed two major school-based water and sanitation projects in Papua New Guinea and about to begin the third project.

It's first community water and sanitation project in the Eastern Highlands is progressing well.

Local PNG Community celebrate the opening of their Atloos funded from the AWA Golf days

