Water saving on ball at Melbourne and Olympic Parks

Akzo Nobel in the water saving sphere

Water recycling Schiavello’s water saviour
Looking back over the past year or so, it is staggering to see the difference a year can make. Midway through 2009, Melbourne’s water industry was facing one of the most challenging periods in its history. Storage levels reached their lowest point on record at around 26 per cent of capacity, a pattern of record low rainfall had persisted for much of the year, and harsher restrictions seemed all but inevitable.
We are now, thankfully, in a much better position. While good rainfall over the past 12 months and the first flows from the Sugarloaf Pipeline have helped boost water storages, it is by no means licence to undo the phenomenal achievements our customers have notched up in the area of water savings.

As we emerge from restrictions and enjoy the benefits of a diversified water supply, City West Water’s challenge is to encourage the community to continue to use water in an efficient and sustainable manner. Whether it’s in the home, in public space or in a large scale manufacturing facility, our goal is to ensure that water is used efficiently and not wasted, and treated as the precious resource that it is.

Ultimately, this means a permanent shift in how we plan and use our water resources. We’ve already made great gains in the area of water reuse, water recycling and water efficiency across a whole range of industry sectors. The rising cost of water over the coming years means that our work is far from over in this area and is only set to gather more momentum in the future.

In this edition of Liquid Assets you’ll see how businesses have allowed efficiency to act as a guiding principle in relation to their water use. You’ll also learn about our broadened Cleaner Production program – our newly named Business Resource Efficiency team will combine the benefits of our Water Conservation and Cleaner Production expertise with our growing knowledge of the relationship with energy efficiency. With water and energy consumption often inextricably linked, this is one area that we feel we can support our customers most effectively.

Enjoy the read.

Regards
Anne
Spanning 40 hectares on the edge of the CBD, the Melbourne and Olympic Parks precinct is one of Melbourne’s most recognised and most visited precincts. Home to Rod Laver Arena, Hisense Arena, the Westpac Centre (formerly the Glass House), and the new AAMI Park, the precinct plays host to hundreds of events, more than a million visitors, and thousands of sports men and women who use the world-class sporting facilities, every year.

With almost seven hectares of playing surfaces that must be maintained at world-class standards, efficient water use is high up the list of challenges. As Melbourne’s rainfall has headed downwards over recent years, Melbourne and Olympic Parks Trust (MOPT) have risen to the challenge and made significant reductions in their water use.

MOPT Horticulture Manager, Adrian Black, explained that over the past four to five years, the Trust has looked at numerous methods of minimising the use of drinking water at the site.

“We looked at a number of options when investigating the best way to reduce the amount of water used across the entire precinct – nothing was off the table, but of course it had to make sense from a financial perspective and had to deliver real water savings,” Mr Black said.

“We investigated extracting and treating water from the Yarra River, but when we realised this may impact the river environment, we looked to bore water which also proved unviable because of a lack of required flow and the risk of salinity.

“At the end of the investigation, rainwater harvesting stood head and shoulders above every other alternative as a cost-effective way to augment our water supplies while taking full advantage of the sheer size of the precinct.”

At Hisense Arena, water is captured from the roof and stored in a series of tanks with a 550,000 litre capacity, which is used for court washing, stadium washdown and irrigation of nearby landscaped areas.

At the precinct’s western edge, a series of tanks connected to stormwater pits over the site hold a further 350,000 litres of water, which is used for washing the outer courts, general maintenance and garden irrigation.

To maximise water use, irrigation was overhauled. All overhead and spray type irrigation not on playing surfaces was converted to drip or sub-surface irrigation, and mulching was increased to retain moisture levels. Plants that hadn’t survived the extreme of drought were replaced with harder varieties.

At the brand new AAMI Park, water sensitive design was built into the stadium. Water from its expansive roof area is captured and stored in
we’ve been able to reduce our drinking water usage by around 25 per cent which means that millions of litres have stayed in the dams and our water bill has gone down.”

The water conservation story at the Melbourne and Olympic Parks precinct is, however, only just beginning.

As part of the $330 million upgrade to Melbourne Park, a 4.5 million litre underground tank is being installed next to Rod Laver Arena. The tank will store rainwater captured from its iconic roof for use in toilet flushing, washdown and irrigation.

And, next to AAMI Park, plans are being finalised for a 13.5 million litre underground tank to capture stormwater to irrigate Gosh’s Paddock, which has just undergone a playing surface upgrade. Once full, these two tanks will store the equivalent to seven Olympic sized swimming pools.

The increasing popularity of events like the Australian Open tennis, A-League football and hundreds of other sporting and entertainment events will ensure the Melbourne and Olympic Parks precinct will continue to attract hundreds of thousands of visitors each year.

The commitment of MOPT to reduce drinking water use will ensure that those visitors enjoy the world-class facilities where drinking water conservation is a key priority.

200,000 litre tanks and is then used for toilet flushing and maintenance. Existing facilities within the venues also came under review. While it is often difficult to retrofit alternative water supply to existing buildings, a number of measures were implemented. Urinals were all converted to waterless models, flow restrictors were placed on all taps and all showerheads were swapped for three-star models.

The initiatives delivered water savings instantly, and despite the ongoing growth in events and visitor numbers to the precinct, water use across the entire precinct has headed downwards.

“The rainwater capture not only reduces the amount of drinking water we use, but it enables us to maintain the facilities to the required world-class standard using water that would otherwise flow into stormwater drains,” Mr Black said.

“From when we started these initiatives about five years ago, • Extensive rainwater harvesting initiatives have slashed water use by 25 per cent

• Expansion of rainwater harvesting is being developed with a capacity of over 19 million litres.
For Akzo Nobel it was an innovative, yet simple solution that helped dramatically reduce water use at their chemical manufacturing facility.

Akzo Nobel in the water saving sphere

Akzo Nobel is the largest global paints and industrial coatings company and a major producer of specialty chemicals in the world, including well known brands such as Sikkens, International and Eka.

The company’s Australian operations in Sunshine, which manufacture 27,000 tonnes of industrial coatings and polymers each year, use a cooling tower and cooling pond to control process water temperature of the manufacturing process.

The pond captures heated water used in the polymer manufacturing process and allows it to cool down before being recirculated through the cooling tower again. Measuring four metres deep and 15 metres wide, like any body of water, the pond can lose considerable...
David Grubits, Environment and Statutory Compliance Manager, said the company had looked at a number of options to address the evaporation from the pond but had to ensure the remedy wasn’t cost prohibitive.

"With a pond that size and the potential water savings we could achieve, some of the options we looked at such as a roof or shade cloth canopy would have required detailed engineering," Mr Grubits said.

"When you look at it from a pay-back perspective, we had to look at something that provided maximum effect for minimum cost because we didn’t have millions of dollars to spend."

With solutions costing tens and possibly hundreds of thousands of dollars, a site engineer undertook some research to investigate more cost effective methods to remedy the evaporation problem.

After doing some research online, the site engineer came up with a simple yet seemingly ingenious remedy — plastic balls!

The cooling pond is now covered with approximately 20,000 black plastic balls. Being hollow, the balls easily float on the pond surface and form a hexagonal honeycomb pattern that covers 91 per cent of the surface area, dramatically reducing evaporation by the same amount.

The remaining nine per cent of uncovered surface allows light and air into the water, minimising the risk of water turning stagnant. And, unlike permanent or engineered alternatives, the balls are flexible and can be easily removed for maintenance purposes and without interruption to operations.

"The plastic balls have provided an ideal solution to our evaporation problem, and we’ve been able to cut the amount of drinking water needed to keep the cooling towers operating efficiently.

“More importantly though, we’ve been able to achieve the water saving at 10-15 per cent of the cost of a conventional engineered cover," Mr Grubits said.
Engaging its tenants to be part of the water saving effort has helped turn a thirsty building into an example of water conservation.

When Exchange Tower was built in the 1970s, water conservation was a long way from the mainstream, let alone an overriding design principle. Nestled amongst the Melbourne CBD’s financial district on Little Collins Street, Exchange Tower is a 15 storey office complex that is home to more than 200 tenants – ranging from small one and two person offices, food court vendors and restauranteurs, to tenants that occupy entire floors.

Such a diverse tenant mix means that the building is operating, on one floor or another, for the best part of 16 hours a day. With 15 levels of tenants and a busy food court with restaurant-style kitchens, water usage had surpassed the 10 megalitres per year threshold that legally required a water management action plan (WaterMAP) to be developed.

Site property manager, Melbourne Facilities Management, used their waterMAP as a manual to bring their water usage down, with a long term goal of bringing consumption under 10 megalitres per year across the site.

Senior Facilities Manager, Paul Donnellan, said that while implementing water saving initiatives within an existing building does present its challenges, there were ample reasons to look at ways where they could save water.

“When dealing with an existing building, there are limitations when it comes to implementing water conservation measures, but we found there were plenty of sources of inefficient water use that could be easily fixed with a comparably small financial cost,” Mr Donnellan said.

“We looked at the water saving from two perspectives: firstly the mechanics of the building itself, and then, the mix of tenants and how they were using water.

“Importantly, this involved engaging the tenants to get on board with water savings, because at the end of the day, the cost of significant increases in water usage would eventually flow through to lease agreements.”

Melbourne Facilities Management quickly implemented a number of measures that each contributed to reduced water consumption. Cooling towers underwent extensive analysis and were optimised to minimise water consumption. Existing dual flush toilets were adjusted to use even less water, flow restrictors were placed on all taps, and showerheads in the on-site gym were replaced with three-star efficient models. Even the older style urns with continual weeping and ‘dump valves’ were replaced with new ‘hot taps’, saving hundreds of litres each week. With the help of a reliable plumber, leaking plumbing was fixed and a program of maintenance was devised to ensure that the building’s plumbing operated efficiently.

From there, the site managers looked to their tenants, particularly in the food courts where many commercial style kitchens were operating, some with wok stoves. Wok stoves can consume vast quantities of water as they require the constant flow of cool water to ensure the surrounding work surface does not overheat.

“We spoke to the food court tenants at great length to encourage them to adopt sensible water use practices in their kitchens, and I’m pleased to say that they’ve all risen to the challenge and contributed to the building recording a sharp drop in water consumption,” Mr Donnellan said.

“Since our first waterMAP, through a combination of changes to hardware and responsible water use by our tenants, we’ve reduced our water use by eight per cent, and we’ve come under the 10 megalitre threshold which is a fantastic achievement.”

Melbourne Facilities Management has no plans to rest on its laurels. It plans to implement more measures, in the short and long term, to continue the water saving achievements at the site. And, with another 14 properties under management across Melbourne, it plans to roll out the learnings from Exchange Tower across its portfolio.

Every little drop for Melbourne Facilities Management
• A multi-faceted approach to saving water across a multi-tenant commercial site

• Water savings have resulted in the site coming in under the 10 megalitre waterMAP threshold.

At a glance
• A water filtration system that recycles virtually 100 per cent of water used for vehicle washing

• Depot site is now largely water self-sufficient.
A water recycling initiative has helped turn a vehicle depot into an example of sustainable water use.

Each week, across the Brimbank City Council municipality, hundreds of thousands of bins are placed out for collection, and with tonnes of refuse whisked from kerbs by a fleet of trucks, it’s easy to imagine that transporting garbage can become a dirty job.

At Council’s Keilor Park vehicle depot, a fleet of trucks stand ready for the next collection, left clean and shining from a $200,000 investment in water recycling that has enabled the site to become mostly self-sufficient from a water perspective.

The Keilor Park depot held the dubious honour of being Council’s largest water consuming site, using water to clean garbage trucks and other service vehicles, including street and footpath sweepers.

In 2009, council workers investigated ways to reduce water use, and came up with a proposal for an onsite water recycling facility and stormwater connection system that has since helped reduce water consumption at the depot to a trickle of what it was.

Tom Razmovski, Manager Environment, said that with the site consuming considerable volumes of water, it was vital that a way be found to cut water use.

“Our fleet of 20 trucks empty garbage bins all over the municipality, and to maintain them for public hygiene means that they need to be washed regularly,” Mr Razmovski said.

“We looked at a number of options, but the water recycling system we’ve implemented here stood out from the rest, so once we received funding from Council and a grant from City West Water we set about getting the project up and running as soon as possible.”

The water recycling system works by collecting water in a drainage pit and then putting it through multiple filtration processes which treat it to Class B standard recycled water.

Minor water losses attributed to treatment and evaporation are compensated by the stormwater system catching water from the roof of the depot shed and sending it to the recycled water storage tanks.

The project, costing approximately $200,000, received an $18,000 grant from City West Water, and will result in up to 1.5 million litres of water being saved every year.

The water recycling system has been operational since mid 2010, with the aim of making vehicle washing water self sufficient at the site. And, during routine maintenance or the unlikely event of system breakdown, the system can be switched over to use drinking water.

With water use now slashed to a fraction of prior levels, Brimbank residents can look forward to seeing their fleet of service vehicles kept in pristine condition knowing that not one drop of water has been wasted.
Olex makes water saving cool

- Installation of variable speed drives on cooling towers that operate depending on ambient temperature
- The initiative has resulted in considerable water, electricity and greenhouse gas emission savings per year.
Olex is Australia’s largest manufacturer of electrical cables for the energy and infrastructure sectors. The company’s plant in Tottenham uses a water recirculation system to cool water from the various processes involved in cable insulating and sheathing. The system operates by using large fans to cool water and then recirculate the cooled water back through the system. The fans, measuring 1160mm in diameter, part of a cooling tower system, were run at 100 per cent capacity, regardless of the water temperature or ambient conditions which can vary the temperature of the cooled water considerably.

On top of consuming nearly 15 million litres of drinking water per year, through its lack of variability and adaptability, the system also used a great deal of energy with fans often running unnecessarily.

Olex decided to address this inefficiency and with a $20,000 grant from City West Water to contribute to the cost, installed variable speed drives that allow the cooling tower fans to operate at optimal speed, depending on the weather conditions and the degree of cooling required at any given time.

The results of Olex’s project have been outstanding. The changes have saved 4.8 million litres of drinking water per year by reducing water losses through cooling tower drift.

Additionally, there has been a significant reduction in energy consumption of 78.1 megawatt hours of electricity per year. This energy saving equates to greenhouse gas savings of 95.2 tonnes per year.

In addition to slashing the consumption of precious drinking water and lessening its carbon footprint, Olex’s commitment to implementing more efficient processes has brought the company’s annual operating costs down by almost $13,000.

The energy savings that have resulted from the project are a bonus towards further improving Olex’s sustainability.
Instant water savings
Princes Linen Services

A state-of-the-art water recycling system dramatically reduced water consumption for Princes Linen Services.

For the tens of thousands of hotel rooms and restaurants around Melbourne, laundry service providers are key suppliers. They make sure that sheets are washed and pressed, napkins starched and table cloths folded.

Princes Linen Services plays a big part in keeping the linen of hundreds of eateries and accommodation sites clean. Located in Altona North, Princes’ site processes around 100 tonnes of linen each week.

Plant Manager, Matthew Cefai, said that linen from accommodation and hospitality sites from all over Melbourne ends up at Princes Linen’s plant.

“It varies during the year, but over the year we wash, dry and prepare up to a staggering 5000 tonnes of linen,” Mr Cefai said.

It’s easy to comprehend that washing such large volumes of linen consumes vast quantities of water. It was this water usage that led

Princes Linen to investigate ways to reduce the water they used on site.

Princes Linen’s operations revolve around continuous batch washers – large industrial washing machines that wash through the tonnes of linen each day. It was these washers that presented the greatest opportunity to reduce water consumption.

After lengthy investigation and analysis, Princes Linen invested in a state-of-the-art onsite water recycling system that enables water to be reused continuously.

With the new system in place, once the linen has been washed, the wastewater is sent through a multi-stage recycling system.

Using a dedicated drain system, the water is first sent through a heat exchanger to be cooled down. Once cooled, water is then pumped through a series of coarse filters to remove large particles, then through fine filters to remove lint, and finally, through a series of superfine filters that remove anything that’s able to end up on the linen being washed.

From there, the water is sent to a holding tank where it is mixed with fresh water and then sent back to the continuous batch washers for reuse.

• A water recycling system utilising a series of filters to treat water for reuse in the laundering process

• Water consumption has dropped by 25 per cent despite an increase in volumes of linen being washed.
Mr Cefai, said the $200,000 investment, including $46,000 funding from City West Water, delivered water and cost savings instantly.

“The water recycling system cut water use at the plant by 80,000 litres on its first day of operation alone,” Mr Cefai said. “We take daily readings of our water meters which allow us to keep detailed records of our water use, so we were able to realise benefits straight away.

“Since the plant went live in October last year, we have reduced our water use by 25 per cent, even with greater volumes of linen being washed, which is fantastic.”
Drip irrigation and rainwater harvesting has underpinned a dramatic reduction in water use at Melbourne University’s Burnley campus.

Melbourne University’s School of Land and Environment, located at the University’s Burnley Campus on the banks of the Yarra River, is an oasis-like site surrounded by arguably some of the most densely developed areas in metropolitan Melbourne.

Comprising nine hectares of ornamental gardens just seven kilometres from the CBD, the former Department of Agriculture site is a dedicated facility that provides training across most facets of modern horticulture.

Gardens Coordinator Andrew Smith, said with approximately 300 students across fields of study that cover all aspects of horticulture including green roof research and bushfire prediction mapping, priority was given to managing water use at the campus.

“We’ve been monitoring water use for the best part of a decade, and even installed sub main check meters at various locations around the site to help identify exactly where water was being used and what it was being used for,” Mr Smith said.

“Our monitoring confirmed that irrigation was the major source of water consumption, and so it was the most important area for ensuring that water is used in the most effective way.”

The campus’ first move was to establish which garden areas could survive without irrigation and then convert necessary irrigation systems from overhead sprayers to drip irrigation.

Secondly, six above-ground rainwater tanks were installed, with a combined capacity of 173,000 litres. A dedicated water supply line enabled irrigation to be converted from sprayers to drippers or ‘pressure-compensated’ sub-surface irrigation.

A pond that had a clay base was relined with concrete to minimise seepage, and stormwater runoff is now harvested for reuse in ponds in the site’s native garden section.

With irrigation water sourced now mostly from rainwater supplies, focus was shifted inside, with toilets upgraded to efficient dual-flush models, and flow restrictors placed on all taps.
keeps growing at

At a glance

- A number of initiatives including extensive rainwater harvesting for irrigation, and upgrades to water efficient devices across the campus
- The campus has reduced its water use by 57 per cent.

"With the rainwater harvesting, upgrade of amenities and changes to the way we use water on site, we’ve been able to reduce our water use by almost 60 per cent per year since 2006,” Mr Smith said.

“Those water reductions have been achieved across all aspects of our water use – irrigation of cultivated areas, our nursery and water use in the buildings on site.”

The upgrade to the site has delivered staggering results. A 30 million litre usage figure has been slashed – down to 13 million litres, representing a 57 per cent reduction in water consumption, equal to almost seven Olympic sized swimming pools.

- The campus has reduced its water use by 57 per cent.
Fire sprinkler testing to go water smart

• Second phase of program aimed at minimising water used for routine fire system testing
• Focus on pressure setting adjustments by providing correct pressure settings tailored to each fire sprinkler system, reducing the incidence of automatic discharge of water.
An initiative to make the testing of fire sprinkler services more efficient is continuing, and delivering some significant water savings.

Since 2008, City West Water has been working closely with the Plumbing Industry Commission (PIC), the Building Commission, and the other metropolitan water retailers to investigate opportunities to reduce water used during fire sprinkler system testing.

As reported in a previous edition of Liquid Assets, fire sprinklers provide essential protection against fire, but routine maintenance of the systems consume millions of litres of precious drinking water each year. The PIC estimates that in Victoria alone, 500 million litres of drinking water is being discharged to stormwater drains annually as a result of the procedures and equipment used for maintaining fire sprinkler systems.

While the first phase of the PIC led program focused on the development of the Guide to Fire Sprinkler System Water Saving (identifying water saving opportunities and knowledge gaps amongst the wider business community), the second phase is focusing on fire sprinkler systems with pressure relief valves. This looks at optimising relief valve pressure levels and pump start procedures through engineering tune-ups and workshops aimed at educating fire sprinkler testers.

Phase two of the program is offering water assessments to customers to assess whether a pressure setting adjustment is appropriate for efficiency improvements.

While maximising water efficiency is the main driver behind the initiative, there is a commitment by all stakeholders to ensure fire protection capability is not compromised in any way by the water efficiency measures. And, the PIC is working with local fire protection firms and water retailers, to provide the expertise to safely implement water-saving ‘engineering tune-up’ pressure projects.

Despite this phase of the initiative being in its early stages, water savings have already been delivered.

QV, a retail, commercial and residential development occupying an entire city block on Lonsdale Street, undertook an assessment of their fire sprinkler pressure settings with the help of City West Water and a local fire protection firm.

The assessment led to the system’s pressure settings being adjusted and minor alterations to the system, costing approximately $4000. Initial expectations were that the changes would result in a 44 per cent reduction in water used for fire sprinkler testing, but the changes delivered a remarkable 57 per cent reduction in water use, which was equal to covering the cost of the upgrade.

City West Water will continue to advocate for change and communicate the benefits of an efficient fire sprinkler system to its customers. This includes support through provision of resources such as flowmeters for water usage measurements and water quality testing conducted on a site by site basis to deliver similar water savings.
Water recycling
Schiavello’s water saviour

Investing in a water recycling system has delivered 8 million litres in water savings for Schiavello in a short time.

Schiavello is one of Australia’s leading international designers and manufacturers of furniture products and interiors that enhance people’s work environments. Known across the world for their leading workspace design, it was decided that Schiavello’s sprawling manufacturing centre in Tullamarine would come in for a water efficiency overhaul aimed at cutting water use and its associated costs.

At its 87,000 square metre facility, Schiavello manufactures and installs commercial office furniture and interiors for customers throughout Australia and overseas, as well as upmarket retail outlets, executive lounges at airports, dealing rooms and call centres. Housing over 1100 employees, the Tullamarine site includes manufacturing plants, showrooms, corporate headquarters and sales offices.

Schiavello’s adoption of environmentally responsible business practice is nothing new. Since 1997, Schiavello has led the Australian furniture industry in the development of environmental practices, leading to the formation of its own Environmental Rating Tool. With water emerging as a growing overhead for the business, Schiavello looked at where significant amounts of water were being used and sought to see where usage could be reduced.

The site’s largest water user was quickly revealed – the metal powder coating facility. Considerable volumes of water are required in the metal powder coating process, primarily in the on line pre-treatment of the metal prior to powder coating, where the metal is cleaned by chemicals and rinsed with water. Investigation revealed that this part of the site alone used 10 million litres of water per year. While the volume of water required could not be reduced, the source could, and so Schiavello decided to invest in a water recycling system to reuse as much water as possible.

Schiavello sought expert advice on filter and re-generation technology, and after a $38,600 grant from City West Water contributing to its cost, a water recycling system was installed in December 2008.

In order to make water suitable for reuse, it passes through a thorough cleansing process. First, a high-volume particulate filter removes solid particles, followed by a carbon filter to remove chlorine. Finally, it passes through a twin bed de-ioniser to remove impurities in the water before being sent back into the powder coating facility.

With the system now in operation, once water has been through these processes it is returned and reused in the pre-treatment rinse of the powder coating lines. Some additional water is used to make up for water lost through evaporation caused by the heat of the filtration process.

After several months of fine tuning and adjustment, Schiavello gradually expanded the recycling facility to service both main powder coat lines, and the project has delivered phenomenal water savings – slashing water use by 8 million litres per year. On top of these water saving gains, the plant has also reduced the volume of chemicals used to treat effluent and the volume of trade waste discharged.

The rinse water recycling system is regularly monitored by Schiavello operations staff to ensure it continues to deliver the required water savings. With such successful outcomes and a ‘payback period’ of just over four years, it’s envisaged that in future, additional water saving initiatives will be implemented to further reduce water use across Schiavello’s site.
• A water recycling system that treats and reuses water in Schiavello’s metal powder coating facility

• A reduction of 8 million litres per year in water consumption, or 80 per cent of previous year’s consumption.
Restaurants, caterers, cafes, bars and commercial kitchens in City West Water’s service area are being encouraged to switch over their pre-wash rinse guns to a new super efficient six-star model that can help slash water and energy use and minimise trade waste.

The new pre-rinse spray gun has been designed to enable businesses in the food industry and other organisations with large kitchens to save water and cut down on their water, energy and trade waste disposal costs.

Like many businesses, many food preparation businesses have undertaken initiatives to save water, and by converting to the new pre-wash rinse guns, businesses can boost those water savings even further.

It’s no secret that food preparation in commercial and restaurant kitchens can use considerable amounts of water. Whether it’s for dishwashing, washing of food, cleaning, or laundry, commercial kitchens can use significant volumes on a variety of fronts, which makes this new pre-wash rinse gun a sensible and cost effective solution.

The six-star WELS (Water Efficiency Labelling and Standards scheme) rated spray gun only uses about one-third of the hot water of traditional spray guns, with a combination of pressure and innovative spray pattern used to rinse dishes quickly and properly in commercial settings.

Most commercial kitchens have a pre-wash rinse sink area designed to remove excess food scraps from soiled plates prior to washing, with some older spray gun models using up to 16 litres of water per minute.

The pre-rinse spray gun uses just four litres per minute – up to one-quarter that of traditional rinse guns. Naturally, City West Water recommends these be installed by a licensed plumber, who will ensure correct installation and optimal operation once fitted.

Feedback from businesses who have upgraded to new six-star models has been that the new pre-rinse spray gun are an easy way to save water, energy and waste in the kitchen, without any adverse impact on washing efficiency.

Businesses interested in upgrading their pre-rinse spray gun should contact Sam Shinwari at City West Water on (03) 9313 8717.

• 6 star WELS rated pre-rinse spray guns use only one quarter of the water of traditional spray rinse nozzles with no loss of pressure or cleaning power

• Given pre-wash spray rinse guns use hot water, they also result in immediate energy savings.

At a glance
Providing Business Resource Efficiency

To better reflect the changing landscape of non-residential water use, City West Water’s Cleaner Production team has been renamed ‘Business Resource Efficiency.’ When the Cleaner Production team was set up a few years ago, our focus was mostly on helping businesses reduce their water use and trade waste discharge.

Over that time, the team has grown and the needs of our customers have evolved, and we’ve often found an inextricable link between water efficiency and other natural resource efficiency, such as energy. Our extensive experience in helping business customers to save water has, in many cases, resulted in considerable energy savings.

Under the Business Resource Efficiency Program banner, City West Water will be better equipped to help our customers to improve their energy efficiency, while continuing to reduce water use and trade waste volumes. The program will combine the benefits of our Water Conservation and Cleaner Production expertise with our growing knowledge of its relationship to energy efficiency.

We are not working alone though. To ensure customers get the best resource efficiency advice, City West Water is working closely with peak industry associations, relevant stakeholders and government bodies to ensure we provide our customers with a comprehensive sustainability support program.

Learn more by contacting us
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City West Water Limited
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Email: enquiries@citywestwater.com.au

AIRAH Cooling Tower Efficiency Calculator

Could your cooling towers be more water and energy efficient?

Cooling towers consume up to half the water used in large office buildings, shopping centres and other major commercial facilities. The Victorian Government’s water efficient cooling towers program has assessed the efficiency of cooling towers and examined ways to reduce water use while maintaining or improving cooling performance.

To provide businesses with an ongoing indication of the water efficiency of your cooling tower relative to its operational capabilities, AIRAH (Australian Institute of Refrigeration, Air conditioning and Heating) along with support from a wide range of industry stakeholders, water corporations and the Victorian Government developed a cooling tower water efficiency calculator, which you can use as an indicator of cooling tower water efficiency at any time.

You should always discuss the calculator findings with your water treatment service provider before taking action to change operational practices. To access the calculator, go to AIRAH’s website at http://ctwec.com/.


Trade Waste and Resource Efficiency Seminar 2010

City West Water held its 17th annual Trade Waste Seminar on 24 March at the Clocktower in Moonee Ponds. More than 200 attendees heard from City West Water’s commercial and industrial customers including Australian Vinyls, Mobil and Moonee Valley Racing Club.

The seminar also included our Service Provider Expo, which gave service providers the chance to liaise with our commercial and industrial customers about the services and products that are available to assist with water conservation and resource efficiency projects.

The seminar concluded with a tour of the rainwater harvesting system at Etihad Stadium and a progress update on the salt reduction plant at the Altona Treatment Plant, which will produce up to 2.5 billion litres of Class A recycled water each year when operational.
Liquid Assets is produced by
City West Water Ltd
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Please note that City West Water does not endorse any of the products or services offered by the service providers mentioned in this publication. It is strongly recommended that you undertake normal diligence enquiries to select appropriate service providers. Estimates of financial savings in this publication are based on City West Water's charges as at July 2010 ($1.7125/kL for non-residential water usage and $1.544/kL for non-residential sewer disposal discharge). Savings are indicative only.

Photography by Philip Smith Photography (Photosmith). Design and print production by Edit Media Pty Ltd.

Liquid Assets is printed on 9Lives, a recycled paper which has achieved ISO 14001 environmental accreditation. The stock consists 80 per cent recycled fibre and 20 per cent virgin fibre mill certified FSC Chain of Custody and the bleaching process is totally chlorine-free.