



# Water: a 'how to' guide

A resource for improving water efficiency in Victorian schools



**ResourceSmart  
Schools**

© Sustainability Victoria ENG063

July 2016

Publication co-produced with Victorian Department of Environment, Land, Water and Planning, SWEP, City West Water, Western Water, Melbourne Water, Goulburn Valley Water, South-East Water and WA Water Corporation.

Authorised and published by  
Sustainability Victoria,  
Level 28, Urban Workshop  
50 Lonsdale Street Melbourne  
Victoria 3000 Australia

#### Accessibility

This document is available in PDF and Word format at  
[www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)

While reasonable efforts have been made to ensure that the contents of this publication are factually correct, Sustainability Victoria gives no warranty regarding its accuracy, completeness, currency or suitability for any particular purpose and to the extent permitted by law, does not accept any liability for loss or damages incurred as a result of reliance placed upon the content of this publication. This publication is provided on the basis that all persons accessing it undertake responsibility for assessing the relevance and accuracy of its content.

The *Water Efficiency in Victorian Schools* guide should be attributed to Sustainability Victoria.

The *Water Efficiency in Victorian Schools* guide (excluding all trade marks and logos) is licensed under a Creative Commons Attribution 4.0 Australia licence. In essence, you are free to copy, distribute and adapt the work, as long as you attribute the work and abide by the other licence terms.

Go to <http://creativecommons.org/licenses/by/4.0/> to view a copy of this licence.



## Contents

Introduction	2
Step one: Understand water	4
Step two: Understand how your school uses water	6
Step three: Make a plan	8
Step four: Live your plan	10
Glossary	12
Further information	13

# Introduction

Building sustainability into every aspect of school life not only benefits our environment, it also helps schools reduce their costs and communities increase their quality of life.

We live on one of the world's driest continents and it's getting hotter. Air and ocean temperatures across Australia are now, on average, almost one degree Celsius warmer than they were in 1910, with most of the warming occurring since 1950. This warming has seen Australia experiencing more warm weather and extreme heat and fewer cool extremes. (Bureau of Meteorology).

Now is the time to act. Together we can make a difference and secure our precious water supply for years to come.

Sustainability Victoria has developed this 'how to' water efficiency guide for schools. The guide outlines the key steps to save water and best use the water that you do need.

The guide demonstrates how simple actions can result in significant cost savings. Between 2011 and 2105 Victorian schools reduced their water consumption by 1,438 megalitres which is the equivalent of 22 olympic sized swimming pools.

Water efficiency benefits your school in many financial, educational, social and environmental ways.

### 1. Reduces your water and energy costs

Water efficiency reduces your school's water and energy costs, meaning that you can do more with your current school budget.

### 2. Builds young leaders and provides learning opportunities

Water efficiency activities provide excellent leadership opportunities and practical learning activities for your students, as well as professional development for you and your colleagues.

### 3. Builds a strong school culture based on good communication and shared goals

Getting the whole school involved allows you to work together and share your successes.

### 4. Raises the school's profile

When the school is involved in water efficiency activities it connects with the community through partnerships and local networks. This is increasingly important for the reputation of schools as students, teachers and parents look for ways to combat climate change and other environmental issues facing our communities.

### 5. Contributes to a better environment through water efficiency

You will be doing your part in building a better and more sustainable planet now and into the future.

This guide reflects the fundamental principle of ResourceSmart Schools by encouraging a whole school approach to embedding sustainable practices across the school. The whole school approach is a more successful approach because the whole school is working together and celebrating the achievement of shared goals.

**This guide will give you key steps and actions, as well as tips, links to resources and policies and interesting case studies to help you apply the knowledge to your own school.**

Valuable assistance in developing this guide has been provided by Victorian Department of Environment, Land, Water and Planning, SWEP, City West Water, Western Water, Melbourne Water, Goulburn Valley Water, South-East Water and WA Water Corporation.



A ResourceSmart School re-using water on their gardens.

## Quick wins for your school

Make sure that your taps are turned off at the tap and not just with a timer. This is like turning off the standby power on electrical appliances.

Schools experience the most water loss in their 'wet areas' like toilets, showers and drinking fountains. This can often be quickly fixed by encouraging staff and students to report leaks or faulty appliances or fittings.

Create a log so that staff, students and cleaners can report faulty or leaking devices and appliances. Make sure there is someone responsible for fixing the leaks.

Keep your ResourceSmart Schools water billing data up to date so you can identify abnormal usage and watch your water use reduce.

## Become a ResourceSmart School

A Victorian government program managed by Sustainability Victoria helping schools benefit from embedding sustainability into everything they do.

Schools seeking to improve the biodiversity of their grounds are encouraged to take a whole of school approach to sustainability. A whole of school approach helps you build a constructive school culture and achieve greater environmental outcomes. In Victoria, this approach is available to all schools through ResourceSmart Schools.

ResourceSmart Schools is a Victorian Government initiative that helps schools reduce costs while giving students important and inspiring opportunities to learn about sustainability in a practical environment.

ResourceSmart Schools provides a framework that helps schools embed sustainability across learning areas, assisting schools to address the cross-curriculum priority of sustainability outlined in the Victorian Curriculum. The program also provides practical support to schools through a network of sustainability experts to help schools reduce their use of energy, water and waste and improve biodiversity.

Victorian schools have won ResourceSmart Schools Awards and international awards and nurtured productive relationships with their local communities.

For more information visit [www.resourcesmartschools.vic.gov.au](http://www.resourcesmartschools.vic.gov.au)

### Key features

Support	Sustainability experts support the school on their sustainability journey and schools track and measure their progress using the online system.
Recognition	Sustainability Certification and the ResourceSmart Schools Awards recognise and reward school activity.
Savings	Save on energy, water and waste bills – and greenhouse gas emissions.
Adaptability	Schools create a unique environmental management system and can work with any sustainability resources or organisation to progress through framework.
Learning	Students learn take-home lessons about sustainable actions as required by the Victorian Curriculum.
Environmental outcomes	Schools learn to operate more sustainably, reducing costs and minimising their impact on the environment through efficient resource use.
Community building	Practical support for schools and communities to live and work more sustainably and to support other schools and environmental partners along the way.

TABLE 1 – RESOURCESMART SCHOOLS OUTCOMES BETWEEN 2011 AND 2016

Activity	Measured Result	
Waste diverted from landfill	\$1.08 million saved	37,649 Cubic metres
Reduced electricity consumption	\$1.71 million saved	8,636 Tonnes CO <sub>2</sub> -e (GHG emissions) saved
Reduced water consumption	\$474K saved	KL 143,783 saved
Planted trees	52,117	
Total dollars saved	\$3,281,386.58	

\* As per data available in ResourceSmart Schools Online in June 2016

## Step one: Understand water

Increase your water literacy to become water efficient.

Water is a valuable resource, especially in our changing climate. If you and your students understand where water comes from and the processes involved in getting it to your school, you will better understand how precious it is. And then you will start to understand how best to use it.

### The water cycle

By the time water reaches your school's taps, toilets and rainwater tanks it has already been on a long journey. And this is not its last stop.

Water is in a constant cycle as it passes through four stages: evaporation, condensation, precipitation and transpiration. Learn more about the water cycle with our recommended education resources referenced in 'Useful resources'.

### Learn how water is processed

Talk to your local council, water corporation, or catchment management authority to learn more about water distribution and its uses in your area.

Learn about stormwater and sewage systems and how we can help protect the water in our rivers, lakes, bays and oceans.

Organise a visit to a water treatment plant with your water corporation to see how water is processed to make it ready for different types of uses.

### Different water sources

You don't need to use drinking, or potable, water for everything. There are different water sources that are appropriate for different uses. These water sources include reticulated water, stormwater, tank water, rainwater, bore water and recycled water.

There are different names that we give to used water, such as greywater and wastewater (check out the glossary at the end of this guide for definitions).

Your school might be able to draw upon several water sources for different purposes. You will start to consider alternative types of water when you complete your water audit in the next step.

#### TIP

Calculate how much rainwater you can harvest with this simple 1x1x1 formula; one millimetre of rainfall, on one square meter of roof, will give you one litre of water.

### WATER FACT 1

#### Fact – Schools can recycle water!

It's easy to spot a recycled water system because it uses purple pipes.

Recycled water goes through an intensive cleaning process at a treatment plant and can be used for garden watering, washing cars, doing laundry and toilet flushing.

### Develop your water skills

For your own professional development contact your local Waterwatch program to see how you can participate in community activities, such as a water animal census or a water quality testing event.

### Audit your curriculum

Audit your current curriculum to understand what water topics you are currently teaching. As you work through this guide you can consider where you can expand on your current teaching.

Get students excited about STEM (Science, Technology, Engineering and Mathematics) and STEAM (STEM with the Arts) to enhance student engagement in water education.

For fantastic science curriculum resources, visit the Australian Academy of Science website at [www.science.org.au/learning/schools](http://www.science.org.au/learning/schools).

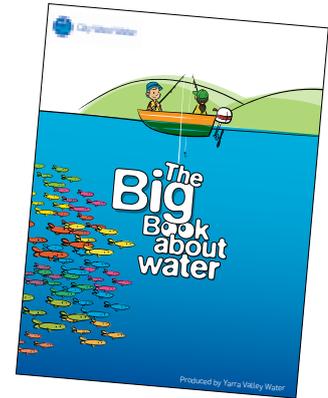


Image courtesy of City West Water

## Useful resources

Your local council, catchment management authority and water corporation have great information about water distribution and management.

- › Find your local council  
[www.dtpli.vic.gov.au/local-government/find-your-local-council](http://www.dtpli.vic.gov.au/local-government/find-your-local-council)
- › Find your catchment management authority  
[www.delwp.vic.gov.au/water/governing-water-resources/catchment-management-authorities](http://www.delwp.vic.gov.au/water/governing-water-resources/catchment-management-authorities)
- › Find your water corporation by looking at your water bill, or going to  
[www.depi.vic.gov.au/water/governing-water-resources/water-corporations](http://www.depi.vic.gov.au/water/governing-water-resources/water-corporations)
- › 'Water Learn it. Live it, an education resource for primary and secondary schools – Volume one' by City West Water, South East Water and Yarra Valley Water  
[www.citywestwater.com.au/our\\_community/teacher\\_resources.aspx](http://www.citywestwater.com.au/our_community/teacher_resources.aspx)
- › City West and South East Water have produced two EAL/CALD curriculum units  
[www.educationsoutheastwater.com.au/resources/ealcald-activities](http://www.educationsoutheastwater.com.au/resources/ealcald-activities)
- › Australian Water Association's Teachers Resources  
[www.awa.asn.au](http://www.awa.asn.au)
- › The sewage system and how it works  
[www.melbournwater.com.au/whatwedo/treatsewage/seweragesystem/pages/how-our-sewage-system-works.aspx](http://www.melbournwater.com.au/whatwedo/treatsewage/seweragesystem/pages/how-our-sewage-system-works.aspx)
- › Waterwatch's community activities for staff professional development and student activities  
[www.vic.waterwatch.org.au](http://www.vic.waterwatch.org.au)



## POLICY

### Australian Plumbing Standards

Plumbers need to follow the Victorian and Australian plumbing standards in all of their work. This is even more important for recycled water pipes as poorly managed plumbing can have serious health outcomes. The Victorian Building Authority will be able to help you to find a licensed plumber.

[www.vba.vic.gov.au/a-z-information/a-z-of-plumbing](http://www.vba.vic.gov.au/a-z-information/a-z-of-plumbing)

### EPA guidelines for collecting and using water

There are EPA guidelines on collecting and using water and how it must be stored and managed for health reasons. This includes greywater and recycled water.

[www.epa.vic.gov.au/your-environment/water/reusing-and-recycling-water](http://www.epa.vic.gov.au/your-environment/water/reusing-and-recycling-water)

## Step two: Understand how your school uses water

### Understand how your school uses water to create infrastructure and behaviour change.

It's important to get the support of the school's key decision makers before you continue. This step will help you gather important data to set your benchmarks and prepare to make a water efficiency plan. You can also use this step to develop water literacy for staff and students and start embedding sustainable water practices in the school.

The activities and resources in this step will help you answer some common questions such as:

- › Do we have any leaking taps, toilets, or drinking fountains?
- › Where, when and how do we irrigate? And how much water is required to irrigate our green spaces?
- › What kind of water sources do we use and what else could we use?
- › What size rainwater tank do we need? How do we connect it to toilets and gardens?
- › How efficient are our water devices?

### Study your bills

Look back on at least one, if possible two, years of bills to see how much water your school uses. This will be easy if you have entered your billing data in ResourceSmart Schools online. It is common to see variable water use over the year. Each water corporation has its own price structure, so you should contact your water corporation for help reading your bill. This includes help to understand the cost of providing your water, sewage, trade waste and recycled water services.

If your school is supplied from a non-reticulated water source, you may not have a meter and you won't be receiving bills. In that case for a small annual fee you can register with Schools Water Efficiency Program (SWEP) who can provide you with a meter and data loggers that monitor your water use.

Reading your water bills helps you to understand how you are using water and where you can save. Use your water bills to calculate:

- › The cost of water (cents/kL)
- › Your annual water bill (if you are billed quarterly add together the four bills for the year).
- › Average daily water use for the period in litres (back page of bill).
- › Average water use per person for the period in litres (take average daily water use and divide by number of people in the school).
- › If your school reduced water use by 10% how much you could save \$ \_\_\_\_\_ every year (multiply your annual water bill amount by 0.1).

#### Tips from ResourceSmart Schools

**ResourceSmart Schools recommend a water use target of 4Kl per student per day.**

**Create student water champions to help energise the school and put the plan into action.**

**Only use contractors, like cleaners, who are water efficient in their work.**

### Install a data logger

A data logger is a small device that attaches to the pipe to record the water flow. Schools can also add a data logger to their water tanks to record their consumption.

Accurately monitoring your water use helps in several ways. You can compare this data against your water bills, identify opportunities to save water and track down leaks.

You can sign up to SWEP for a small annual fee to get data loggers. By participating in SWEP benchmarking you can compare your school's per capita water consumption.

### Install sub-meters

Sub-meters allow you to understand how much water is being used in specific areas of the school, for example your sports centre, ovals, or science block.

Having a more detailed picture of your water use will help you identify where your school uses the most water so that you can find more opportunities to save water. For example, if you have a swimming pool you can find out how much water you are using to top it up.

Because sub-meters measure more defined parts of your school they can also help you locate leaks. Don't worry if you don't have sub-meters, we'll also tell you about other ways to find leaks.

### Conduct a water audit

Walk around the school with a water audit template to understand where and how your school uses water and what water sources you are currently using.

An audit will help you understand where there are opportunities and how to make structural improvements and change behaviour.

Get your students to help with the audit. Not only will this make the task easier, it will also develop their water literacy and give them practical and inspiring lessons. Getting as many people involved in this process will help embed the sustainable activity across the school.

An audit will look at your water use in two key ways:

#### 1. Infrastructure

These are all the fixtures, fittings and equipment that use or manage water in your school, including:

- › Toilets and urinals
- › Drinking fountains and taps
- › Hand basins and sinks
- › Hot water systems
- › Evaporative air cooling
- › Watering systems
- › Canteens and classrooms
- › Swimming pools, gardens and ovals
- › Gutters and rainwater tanks

#### 2. Behaviour

These are all the processes, practices and habits that people use with water, including:

- › Daily water use
- › Cleaning
- › Gardening and watering
- › Outside hirers
- › Water sources we choose to use.

For more information on water audits we recommend you read the by Water Corporation of WA and Cool Australia audits referenced in 'Useful resources'.

## Check for leaks

Schools should regularly check for leaks as part of their maintenance schedule or as a key task of their water 'team'. As you walk around see if the taps or toilet cisterns are leaking and not sealing properly after being flushed.

There is also a simple test you can do to check for major leaks. Take a meter reading at night and then in the morning before staff and pupils come in. Similarly, take a meter reading on Friday after hours and Monday before staff and students enter the premises. Generally water is not used out of hours. If you find that water is being used during these times then you may have a leak.

You can use your data logger to see if you are losing water unexpectedly after hours. Compare your watering practices against the data registered on your school's dedicated SWEF webpage.

You can also use the isolation valves on your water pipes to isolate the leak. Turn off the isolation valve and if the data logger shows a dramatic change in water use, it might be showing you a leak in that area. If you already have sub-meters, they can be used to identify specific areas that are using unusual amounts of water.

You can also get help from SWEF, your water corporation and the Department of Education and Training.

## WATER FACT 2

### Fact – Detecting leaks

Leaks don't always come to the surface. Use your data logger or water meter to look for unusual rates of water use.

A leaking toilet can waste up to 73,000 litres of water a year. Consider what else you could do with that wasted water!

### CASE STUDY:

#### Daylesford Secondary College

In 2008 Daylesford Secondary College participated in the Water Exploration Think Tank (WETT) with a focus on water-based cross curricular activities in the school and feeder primary schools. They established a wetland that harvested storm water runoff as well as installed three large rainwater tanks to harvest rain from the roof.



## Useful resources

**For more information on equipment and practices to use water wisely, including an audit, checklists and student worksheets:**

- › ResourceSmart Schools resources  
[www.resourcesmartschools.vic.gov.au/resources](http://www.resourcesmartschools.vic.gov.au/resources)
- › Water Corporation (WA) – 'School Water Audit, a step by step guide to improving water efficiency in schools'  
[www.watercorporation.com.au/-/media/files/teachers/save-water/school%20water%20audit%20teacher%20guide.pdf](http://www.watercorporation.com.au/-/media/files/teachers/save-water/school%20water%20audit%20teacher%20guide.pdf)
- › Cool Australia  
[www.coolaustralia.org/activity/school-water-audit-56](http://www.coolaustralia.org/activity/school-water-audit-56)
- › 'Water Learn it. Live it, an education resource for primary and secondary schools – Volumes two and three' by City West Water, South East Water and Yarra Valley Water.  
[www.citywestwater.com.au/our\\_community/teacher\\_resources.aspx](http://www.citywestwater.com.au/our_community/teacher_resources.aspx)

**Learn more about:**

- › How a toilet works:  
[www.visual.ly/how-toilet-flushing-works](http://www.visual.ly/how-toilet-flushing-works)
- › How evaporative cooling works:  
[www.wikipedia.org/wiki/Evaporative\\_cooler](http://www.wikipedia.org/wiki/Evaporative_cooler)
- › SWEF for data loggers, information, curriculum material and comparative data.  
[www.myswep.com.au](http://www.myswep.com.au)
- › Water Corporations' via their websites. (see the full list at the end of this guide).

## Step three: Make a plan

You are ready to make a plan to reduce your water consumption and use your water more productively.

Once you have completed your audit you will have a baseline that tells you how much you are using. You can set a target to work towards a benchmark that you want to achieve. For ResourceSmart Schools the benchmark is 4Kl per student per year. Now you're ready to make your water efficiency plan.

Don't do it alone. To be successful at embedding sustainable practice across the whole school it is important to build a team and involve the whole school – the principal, teachers, students, support staff and community members. Use this time to build further relationships with your community and get their help.

Let your key decision makers know that by spending money on water saving measures, you can get your money back through lower water bills.

### Set targets

Make sure the targets are SMART, which means that they are specific, measurable, attainable, relevant and time-bound. Don't forget to include targets that address behaviour change.

Think about how you can get the school community to change their habits to become more water efficient. To encourage contribution from the whole school, you could link targets to school-wide celebrations.

Before you go much further, get your plan approved by your school's key decision makers – the principal and school council.

### Identify the opportunities

Your audit should have shown you where are the best places to save water and use your water more productively. Where can you make efficiencies? Which areas use the most water? How can you engage the staff and students to make changes to their behaviour?

Your school's key opportunities are dependent on the audit results as well as your school's resources and geographical location. These opportunities might include replacing inefficient equipment, installing vandal proof taps, installing rainwater tanks, improving cleaning processes, incorporating a cleaning log to track faulty equipment and using drought tolerant planting.

Talk to experts who work everyday to get the most out of water like plumbers, sports grounds keepers and local council parks and recreation officers. Go to your local plant nursery for information on planting and gardening for water efficiency.

Make connections with other schools to see how they are being water efficient. You could share ideas and resources. Connect the work to your curriculum and learning opportunities where you can.

Inspire your colleagues to get involved by helping them understand how the increased savings and water efficiency can benefit everyone. Collaborate with staff to work out what changes will be achievable and effective.

Here are some popular water efficiency solutions that you could consider.

## 1. Infrastructure

**Toilets** – Install modern dual flush toilets. They only use three litres per half flush and either 4.5 or 6 litres for a full flush, compared to as much as 12 litres for an older style single-flush toilet.

**Drinking fountains and taps** – Place containers under school water fountains and use the excess water in the garden.

**Hand basins and sinks** – Fit the taps with aerators. They reduce the amount of water flowing from the tap by up to 50%, while maintaining the pressure.

**Hot water systems** – Adjust the thermostat or temperature of your hot water so that you are not overheating the water unnecessarily and wasting energy.

**Evaporative air-cooling** – Make sure that your system is regularly serviced so that it runs efficiently and that leaks are found and fixed.

**Watering system** – Install moisture sensors that only turn on the watering system when the garden needs it.

**Canteens and classrooms** – Reduce waste and save money by encouraging refillable water bottles instead of having bottled water in your canteen and at school events.

**Swimming pools, gardens and ovals** – Use a pool blanket when it's not in use. Plant native drought tolerant plants that are better suited to your local climate. Understand the water efficiency of your oval watering system.

**Gutters and rain water tanks** – Install rainwater tanks to collect water for use on the garden and/or flushing toilets. Make sure you maintain gutters by keeping them clear so that rainwater doesn't overflow and become lost from the collection system.

## 2. Behaviours

**Daily water use** – Turn off taps when they're not in use and only use what you need. Set up good systems and practices so that everyone thinks about the water they use everyday.

**Cleaning** – Use a broom to sweep away leaves and dirt instead of washing pathways. Wash paintbrushes in a bucket, or ice cream container, rather than under a running tap.

**Gardening and watering** – Watering more deeply and less frequently can be better than watering a little bit everyday.

**Other school users** – If other people also use your water you will need to educate and encourage them to follow your water plan.

### TIP

#### Use drinking quality water for drinking

There are alternative types of water that you can use on your gardens rather than drinking water. Consider using rainwater that's collected from your school roof and stored in tanks, or recycled water if it's available. Connect rainwater tanks to toilets and urinals so that water is used year round. This allows the tanks to be refilled more frequently in the wetter part of the year.

## Set, prioritise and assign actions

Develop a water efficiency plan that translates opportunities into actions on a timeline. You can use the ResourceSmart Schools School Environmental Management Plan (SEMP) template referenced in 'Useful resources'.

What are the easy wins that you can first do easily and quickly? Consider the everyday improvements that have significant impact, but not visible outcomes, as well as the one-off and dramatic changes.

Talk to students, parents and staff to find out what ideas they have. Working in partnership with your school community not only shares the workload, it makes it more likely to change behaviour and embed the sustainable practice across the school. Set a time to get back together and share each other's progress.

## Engage your community

Hopefully there is already a committed group of staff and students who have helped to create the plan. Now there is the opportunity to get the rest of the school involved. Go around to classes to tell students and staff about the water efficiency plan and get their commitment to participate in activities. Publicise the plan in school newsletters.

Connect and educate beyond the school gates to have deeper impact on your community's water efficiency and literacy. Building relationships with parents, local businesses and community groups can help you achieve your goals with sponsorship and hands-on support. SWEP has developed a widget that will enable you to show your data on your website and demonstrate to your community how you are progressing towards your targets.

## Seek funding

Contact your local council, water corporation, Department of Education and Training and Department of Environment, Land, Water and Planning to see if there are any funding opportunities to help you deliver your plan.

## Celebrate your achievements

Enter the ResourceSmart Schools Awards. For further information visit [www.sustainability.vic.gov.au/schoolsawards](http://www.sustainability.vic.gov.au/schoolsawards).

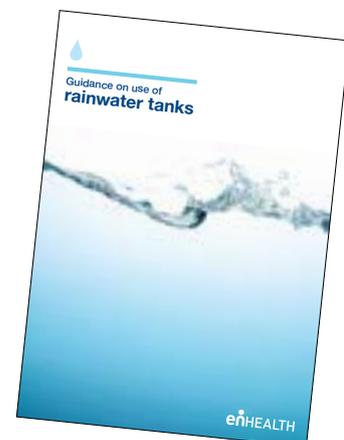
### CASE STUDY: St Monica's College



St Monica's College students are leaders in water saving initiatives. They pass on their knowledge of water conservation to the local community. This helps others to be mindful of their daily water use habits.

## Useful resources

- › School Environment Management Plan  
[www.resourcesmartschools.vic.gov.au/home/resources](http://www.resourcesmartschools.vic.gov.au/home/resources)
- › Learn how other schools have managed water and transformed their spaces as part of the School as a Catchment project  
<http://eev.vic.edu.au/resources/school-as-catchment>
- › Guidance on healthy water harvesting and rainwater tanks:  
[www.health.gov.au/internet/main/publishing.nsf/Content/0D71DB86E9DA7CF1CA257BF0001CBF2F/\\$File/enhealth-raitank.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/0D71DB86E9DA7CF1CA257BF0001CBF2F/$File/enhealth-raitank.pdf)
- › To help look after your school's green spaces  
[www.clearwater.asn.au/user-data/research-projects/swf-files/bpg-final.pdf](http://www.clearwater.asn.au/user-data/research-projects/swf-files/bpg-final.pdf)
- › The Water Efficiency Labelling and Standard (WELS) scheme can help you find good products  
[www.waterrating.gov.au](http://www.waterrating.gov.au)



## Step four: Live your plan

### Put your plan into action, review it, adapt it and celebrate your successes.

Measure your work as you go and, after a year, review your progress to adjust your plan and respond to the changes that you're making. Then keep going!

Don't forget to celebrate your achievements. This is important to build momentum and maintain enthusiasm across the school. If you sign up to ResourceSmart Schools using the online system, you can record the school's billing data, understand how to reduce your water use and be rewarded with Sustainability Certification. SWEP can help you understand the amount of water you've saved by identifying and fixing leaks.

Talking about the savings that you have made can help further engage the school and community in the plan.

### Implement your plan

In the first year of your plan you'll observe the impact of your changes and build better habits. If you've set up a student and teacher committee, make sure that you meet regularly to share your progress. Continue to build relationships with community partners to help with your work.

### Measure your progress

Use your bills and sub-meters to keep track of your water use. You can sign up to ResourceSmart online to track your water bills and to compare your water use against other schools in your region.

### Review your plan

After a year, review your activity to see if it's having the impact that you planned in your water management plan and, more broadly, your schools environment management plan.

Amend your plan if you need to, then keep going. This is a cycle to help you to maintain and improve your water efficiency performance.

#### CASE STUDY: Winter's Flat Primary School

At Winter's Flat Primary School in Castlemaine students are like water detectives and are always on the lookout for a drip or leak. The school has forged an ongoing partnership with Coliban Water which is helping students to learn about water management, collection, recycling, waste prevention, usage reduction and the importance of healthy waterways.

## Celebrate your successes

It's going to be important to harness the energy and enthusiasm in the school so that the good work can continue. One of the best ways to do this is to reward the school's great activity and progress.

So celebrate loudly when you reach a target! You can offer prizes and highlight great activity in newsletters, at assemblies and at other shared events.

You could consider entering your school's work into competitions, or joining with other local, state and nation-wide environmental activity. This will help to build your school's profile and potentially attract more partnerships.

Share your stories with the school council and share your successes with your broader community and partners. Sharing your knowledge can help other schools achieve their water efficiency goals.

Consider entering into national or state environmental awards and competitions, or joining in other local, state and nation-wide activities, such as Kids Teaching Kids.



Manchester Primary School, Mooroolbark, using a simple solution for capturing and reusing water.

## Enter your star project into a Victorian award

- › ResourceSmart Schools Awards  
[www.resourcesmart.e-award.com.au](http://www.resourcesmart.e-award.com.au)
- › Premier's Sustainability Awards  
[www.sustainabilityawards.vic.gov.au](http://www.sustainabilityawards.vic.gov.au)
- › Department of Education and Training's Garden Awards  
[www.schoolsgardenawards.org.au](http://www.schoolsgardenawards.org.au)
- › Junior Landcare Awards  
<https://landcareaustralia.org.au/news/landcare-awards>
- › Back to Earth Garden Awards  
<http://competitions.backtoearth.vic.gov.au>

or...

- › Showcase your activity at national events like Enviroweek  
[www.enviroweek.org](http://www.enviroweek.org)
- › Showcase your results on the international stage at the World Environment Day awards  
[www.unaavictoria.org.au/awards-programs/world-environment-day-awards](http://www.unaavictoria.org.au/awards-programs/world-environment-day-awards)
- › Provide your students with great leadership opportunities at the Kids Teaching Kids conferences  
[www.kidsteachingkids.com.au](http://www.kidsteachingkids.com.au)



Winters Flat, Castlemaine, winners of the ResourceSmart School of the Year Award for 2015

## CASE STUDY: Bentleigh West Primary School

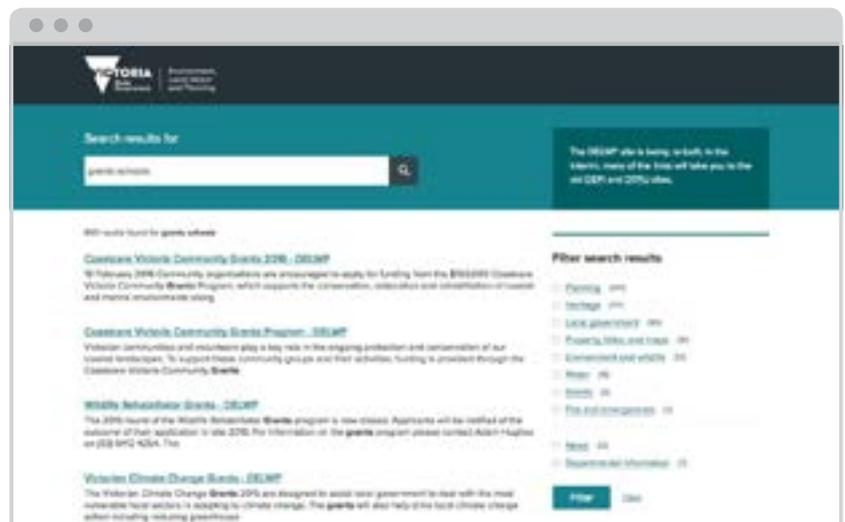


Bentleigh West Primary School has a Global Water Cooperation Project that involves four sister schools across Australia and Asia. They collect, compare and analyse water data from their sister schools. This Project was a finalist in the education category of the 2015 United Nations World Environment Day Awards. A movie they made to document their work was used to launch the 2015 Kids Teaching Kids Week.

## TIP

### Share with other schools

Connect with other schools to share your learnings, resources and successes. You could start a Facebook group to keep in touch!



Check the Department of Environment, Land, Water and Planning website regularly to see what grants are available to schools. [www.delwp.vic.gov.au](http://www.delwp.vic.gov.au)

## Glossary

**Bore water**, also known as **artesian water**, is water that has collected in aquifers, or natural underground wells, that can be accessed via a bore or well.

**Greywater** is used water from other domestic-like activities, like shower water and laundry and hand basins. Greywater storage needs to meet EPA guidelines. Greywater storage systems need to be managed in the same way as septic tanks.

**Irrigation** is the watering of land to grow plants, whether that's small areas like kitchen gardens and garden beds, or large areas such as grassy ovals.

**Potable water** is commonly known as drinking water. It is safe for drinking and food preparation.

**Rainwater** is water that has fallen as rain or has been obtained from rain and stored in tanks for different uses.

**Recycled water** is wastewater that has been collected and treated so that it can be used again for a variety of purposes.

**Stormwater** is surface run-off from rain and storm events that enters the drainage system. The water, pollution and debris flow untreated into our rivers, creeks, lakes and bays.

**Tankwater** is water that is stored in tanks having been collected via pipes and gutters for example from building roofs, or bought from water retailers.

**Wastewater** is produced by households, businesses and industry. It includes everything drained from the kitchen, laundry, or bathroom and anything flushed down the toilet. All wastewater goes into the sewer.

**Water harvesting** is simply collecting water to store for later use. Usually water is collected from buildings' roofs and stored in tanks.

**Reticulated** water refers to the piped-water network, more familiarly known as town water or mains water. And **Non-reticulated** water comes from sources other than the piped-water network, such as bore water or tankwater.

## Further information

Sustainability Victoria  
[www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au)

ResourceSmart Schools  
[www.resourcesmartschools.vic.gov.au](http://www.resourcesmartschools.vic.gov.au)

Department of Environment, Land,  
Water & Planning  
[www.delwp.vic.gov.au](http://www.delwp.vic.gov.au)

Schools Water Efficiency Program  
[www.myswep.com.au](http://www.myswep.com.au)

### Victorian Water Corporations

Barwon Water  
[www.barwonwater.vic.gov.au](http://www.barwonwater.vic.gov.au)

Central Highlands Water  
[www.chw.net.au](http://www.chw.net.au)

City West Water  
[www.citywestwater.com.au](http://www.citywestwater.com.au)

Coliban Water  
[www.coliban.com.au](http://www.coliban.com.au)

East Gippsland Water  
[www.egwater.vic.gov.au](http://www.egwater.vic.gov.au)

Gippsland Water  
<https://www.gippswater.com.au>

Goulburn Valley Water  
[www.gvwater.vic.gov.au](http://www.gvwater.vic.gov.au)

Goulburn-Murray Water  
[www.g-mwater.com.au](http://www.g-mwater.com.au)

GWMWater  
[www.gwmwater.org.au](http://www.gwmwater.org.au)

Lower Murray Water  
[www.lmw.vic.gov.au](http://www.lmw.vic.gov.au)

### National Water Organisations

Australian Water Association  
[www.awa.asn.au](http://www.awa.asn.au)

WELS  
[www.waterrating.gov.au](http://www.waterrating.gov.au)

Irrigation Australia  
<http://irrigation.org.au>

ACTEW  
[www.actewagl.com.au](http://www.actewagl.com.au)

Department of Education and Training Tools  
and Resources  
[www.education.vic.gov.au/school/principals/infrastructure/pages/sustainabilitytools.aspx](http://www.education.vic.gov.au/school/principals/infrastructure/pages/sustainabilitytools.aspx)

Cool Australia  
[www.coolaustralia.org](http://www.coolaustralia.org)

CERES  
[www.ceres.org.au](http://www.ceres.org.au)

Environment Education Australia  
<http://eev.vic.edu.au>

Melbourne Water  
[www.melbournewater.com.au](http://www.melbournewater.com.au)

North East Water  
[www.newater.com.au](http://www.newater.com.au)

South East Water  
<http://southeastwater.com.au>

South Gippsland Water  
[www.sgwater.com.au](http://www.sgwater.com.au)

Southern Rural Water  
[www.srw.com.au](http://www.srw.com.au)

Wannon Water  
[www.wannonwater.com.au](http://www.wannonwater.com.au)

Western Water  
[www.westernwater.com.au](http://www.westernwater.com.au)

Westernport Water  
[www.westernportwater.com.au](http://www.westernportwater.com.au)

Yarra Valley Water  
[www.yvw.com.au](http://www.yvw.com.au)

Sydney Water  
[www.sydneywater.com.au](http://www.sydneywater.com.au)

SA Water  
[www.sawater.com.au](http://www.sawater.com.au)

Water Corporation of Western Australia  
[www.watercorporation.com.au](http://www.watercorporation.com.au)

Sustainability Victoria  
Level 28, Urban Workshop,  
50 Lonsdale Street, Melbourne VIC 3000  
Phone (03) 8626 8700  
[sustainability.vic.gov.au](http://sustainability.vic.gov.au)

Published by Sustainability Victoria.  
Water efficiency in schools

© Sustainability Victoria, July 2016 ENG063

