

Waterwise checklist

Schools and Education Facilities



This checklist provides water efficiency options and aims to raise awareness of water issues. Specific information is available on our website in the Waterwise Business series of information sheets.

Getting started with user education/awareness

Schools and education facilities are excellent organisations to implement water conservation practices. Students can be an enormous resource for ideas on using less water in their daily activities. An added benefit is that students can apply the same water saving principles in their homes.

It is essential that the whole process is fully supported by teachers and staff at the school. Understanding the facility's water use and conducting a basic water audit will establish:

- Awareness of where and how water is being used around the facility.
- Actual water use (established through reading the water meter regularly).
- Opportunities for improvement.

Immediate low or no cost options

Initiate school-wide conservation campaign

- Make conserving water at your school an effort that affects students, teachers, administrative staff and even visitors and volunteers.
- Adopt a motto/slogan or character that represents the school's endeavours to reduce its water use.
- Get everyone involved; send home notices that explain the school's intent to conserve water.
- Publicise status of the program during the daily school announcements or in newsletters. Incorporate water conservation into the student curriculum.
- Feature a water-efficiency display in common areas to highlight the program.
- Track and measure water consumption and make everyone aware of usage and reductions accomplished.
- Specific information on setting up a water efficiency program is presented in the Waterwise Business Information Sheet- Water Efficiency Program.
- Become a Waterwise School and remain committed to the program.

Did you know that one leaking tap could waste around 200 litres of water per day?

Identify water usage and repair leaks

- Check water meter readings to monitor water use and determine periods of peak usage. Identifying patterns of water use may also help to identify any inconsistencies due to leaks or faulty water using appliances.
- Display posters and signs in bathrooms as water conservation reminders (stickers available from the Water Corporation) including who in your school students should report a leak to.
- Repair leaking taps, toilets, pipes, pumps and other water supply lines such as irrigation.
- Turn off any unnecessary flows and turn off water using equipment when not in use.
- Check valves and switches on all water using equipment and replace/repair as necessary.
- Ensure hot water supply lines are insulated.

Pool and spas

- Keep it covered! Use a pool cover to reduce water loss caused through evaporation.
- Repair any swimming pool leaks. A 25 mm/day leak in a 5 by 10 metre pool can waste around 450,000 litres per year!
- If heated, reduce your pool and spa water temperature. Warmer water evaporates more quickly.
- Evaluate filter back wash schedule; reduce back washing to minimum without compromising public health and safety.
- Shut down unnecessary fountains and waterfalls. Windy weather can lead to a significant amount of water wasted through evaporation.

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Food preparation areas

- Do not use running water to thaw food; place it in the refrigerator to defrost.
- Pre-soak utensils and other items in sinks rather than pre rinsing them under running water.
- Turn off dishwasher when not in use and only use when full. Ensure water flow rates are set at the manufacturer's minimum required levels.
- Practice dry cleanup by sweeping. Use squeegees to remove surface and floor residuals/debris before washing with water.
- Consider reducing or eliminating nightly hosing in kitchen areas where mopping will provide adequate cleanliness.
- Adjust ice machines to produce only the amount necessary.

Landscaping

- Adhere to water restrictions when watering gardens and lawns
- Water only when needed.
- Avoid wastage! Ensure sprinklers are directed to landscape areas and not to roads and paved areas.
- Plant native and drought tolerant plants and grasses.
- Hydrozone your garden, plant similar water using plants together so you don't have to overwater.

Long term options

Fixture and equipment retrofits

- Install flow restrictors and aerators on taps where appropriate.
- Install water efficient showerheads.
- Retrofit on-line (no cistern) toilets and urinals with water efficient valve replacement kits.
- If only replacing a limited number of fixtures, replace heavily-used units in high traffic areas first.
- For dish washing machines, replace spray nozzles with water efficient types.
- If using hoses, ensure they are fitted with high pressure, low-volume nozzles.
- Retrofit once-through water-cooled refrigeration and ice machines and incorporate into recirculating cooling loop wherever possible.

- Install high pressure/low-flow spray rinsers with automatic shut off for pot washing.
- For ice machines, install flow regulators to prevent excess flows through the icemakers.

Laboratory considerations

- Ensure all washing equipment have aerated spray nozzles equipped with shutoff valves.
- Eliminate once-through water cooling of lab equipment such as autoclaves and lasers by incorporating into a recirculating chilled cooling loop.

Water reuse and recycling and flow restrictions

- Adhere to WA Health Department regulations regarding water reuse.
- Ensure the final rinse water from the dishwashing machines is used for the initial rinse in the next wash sequence.
- Reduce water pressure to building and associated fixtures (sinks, toilets, showers, laundry and dishwashing machines) as appropriate.

Get the students involved in 'how' water could be used more efficiently or 'what' could be done to use less water in their day-to-day activities.

Consider the following:

- Repair leaks as quickly as possible, they waste water 24 hours a day, every day of the year!
- Educate and involve employees and students on water conservation
- Get input and ideas from staff and students; consider a suggestion box in prominent areas.
- Conduct student contests that seek ideas for posters, slogans and water conservation suggestions.
- Adopt a motto/slogan or character that represents the school's endeavours to reduce its water use.

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- Send home notices that explain the school's intent to conserve water. Publicise the status of the program during daily school announcements or in newsletters. Incorporate water conservation into the student curriculum.
- Feature a water efficiency display in common areas to highlight the program.
- Track and measure water usage (as above) and keep everyone informed of progress.

Water use awareness around the facility

Make a list of all the points around the facility (example below) to identify areas of water use and make note of any issues or follow-up actions. Where possible use a catch cup to check the flow rate of taps/showers (catch cups are available from the Water Corporation).

Area	Facility	Type	Issues	Action
Main building	Boys toilet block	urinal	No issues	n/a
		Toilet 1	Leaking cistern	repaired
		Toilet 2	No issues	n/a
		Wash basins	Flow rate = 15 litres/minute	Taps ordered
	Girls toilet block	Toilet 1	No issues	n/a
		Toilet 2	No issues	n/a
		Toilet 3	Leaking cistern	repaired
	Science room 1	Taps	Are taps water efficient, more investigation required	All fitted with aerators
Irrigation	Garden bet at entrance	Sprinklers	Water is going onto pathways	Sprinklers need adjusting

Record the water use through the meter:

- To identify water use patterns, take hourly readings over five or more school days
- To identify regular use, take daily readings for a number of weeks
- To monitor ongoing water use and consistencies, take weekly readings of the meter

Meter	Meter location	Date /time	Meter reading	kL used
BK001045	Next to tennis court	2/1/2011 2pm	24536	
		9/1/2011 2pm	24599	63kL
		16/1/2011 2pm	24675	76kL

References

DPPEA FY04-10 (August 2002) - North Carolina Division of Pollution Prevention and Environmental Assistance

Further Information

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