

Rainwater Harvesting / Storage

Description

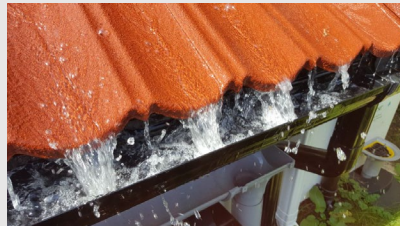
Large quantities of rainfall in Queensland can be utilised through rainwater harvesting. This collects and stores the rainwater from surfaces for later use.

Key Pointers

- Rainwater harvesting schemes run best when aligned with the seasons; infrastructure should be maintained and improved before each rainy season.
- Storage tanks on site should be included in the landscape.
- Appointing a consultant to design and prepare a maintenance plan and aid in monitoring the system can be beneficial.

Case Study

Woodside building at Monash, Vic



The roof of the Woodside building at Monash University contains a rainwater harvesting tank. The tank feeds flush devices and the university's irrigation system.

Source: [Monash Woodside Building for Technology and Design | ArchitectureAU](#)

Stormwater Treatment System

Description

Collecting stormwater for later use encourages local water usage, in turn reducing the cost of water bills. However, stormwater requires treatment for potable consumption.

Key Pointers

- Treatment may not be cost-effective and must be addressed against trade-off with using local water supply.
- Systems must be maintained even throughout seasons of low usage.
- Appointing a consultant to design and prepare a maintenance plan and aid in monitoring the system can be beneficial.

Case Study

Victorian School Building Authority (VSBA), VIC



VSBA investigated strategies for new schools to ensure their building and landscape design integrate environmental sustainability and enhanced learning environments. A key design feature recognised is integrated stormwater management solutions with rain gardens capable of serving both infrastructure and outdoor learning opportunities.

Source: [VSBA New Schools Building Projects - Outlines \(outlinesla.com.au\)](https://www.outlinesla.com.au)

Flood Management

Description

Flood management strategies help prevent the damage caused by floods. Reducing the impact of damage through land use planning and structural mitigation is essential to preserve the existing structures.

Key Pointers

- Flood awareness can be incorporated into educational lessons.
- Management strategies can be considered at the early design stage to increase climate-resilience.
- An external consultant can be appointed to assist in producing a flood management plan and reduce damage impact.

Case Study

144 schools closed in 2022 due to the Queensland floods¹.

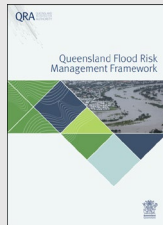
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FULL LIST: 144 schools closed as flood chaos continues

A total of 144 schools will remain closed on Wednesday as southeast Queensland's flood chaos continues.

The Queensland Reconstruction Authority² recognise the need for flood management and provide a framework to ensure effective plans are in place.



Sources:

¹[Qld floods: Schools closed due to wild weather | Full list | The Courier Mail](#)

²[Queensland Flood Risk Management Framework | Queensland Reconstruction Authority \(qra.qld.gov.au\)](#)

Irrigation Strategy

Description

Irrigation strategies save water while optimising water usage, which is vital for crop growth and agricultural systems.

Key Pointers

- Paired with green infrastructure, irrigation is crucial to maintaining vegetation.
- Maintenance of the system may require external experts.
- Irrigation systems can benefit the lawns of soft landscaping and can also be coupled with nature-positive incentives, such as crop gardens, to increase water resource management.

Case Study

Seaforth State School, QLD



The school has a Sports Field Irrigation System for use on its main oval. The system was integrated with the existing water supply facilities to successfully provide water to the sports field.

Source: [Sports Field Irrigation System for Primary School - Dowdens Pumping & Water Treatment](#)

Water Smart Awareness

Description

Raising water awareness through innovative strategies is a simple method that can be understood and adopted by a range of audiences.

Key Pointers

- Smart water meters can provide information to understand areas of need when reducing water consumption.
- Water smart awareness can be shared across all daily activities, and lessons learnt can be applied outside the school
- Understanding smart water readings and action plans to reduce usage may require the appointment of an external consultant.

Case Study

Hillbrook Anglican School, QLD

The school installed a digital water meter to track and improve its water processes, hoping to be 90% circular in its operations by 2030¹.



Wodonga Secondary College, VIC

The school benefitted from the installation of a data logger when it detected a leak in pipework, which resulted in losses of 20 litres per minute². This reduced system efficiency.

Sources:

¹ [The Australian high school teaching circular economy \(acehub.org.au\)](https://www.acehub.org.au)

² [Wodonga Secondary College - Case Studies - SWEP \(myswep.com.au\)](https://www.myswep.com.au)

Tap Water Wastage

Description

Reducing tap water wastage is a simple measure to educate and implement. This is done through manual action and the replacement of aged equipment.

Key Pointers

- Checks and maintenance of equipment is essential to maintain efficiency.
- Easy action to comprehend for students from a young age.
- Conserving water saves energy, in turn saving money.

Case Study

St Louis de Montfort, VIC



The school began a scheme whereby buckets were placed under taps to catch leaks¹; combined with a number of other sustainability practices they won the Resource Smart School of the Decade² award.

Source:

¹ [St Louis de Montfort's Primary School | Sustainability Victoria](#)

² <https://assets.sustainability.vic.gov.au/susvic/Report-2017-ResourceSmart-Schools-Awards-Booklet.pdf>

Alternative Resources for Non-potable Water

Description

Non-potable water doesn't require the same energy and treatment as potable water; therefore, where alternative resources can be utilised, it is encouraged.

Key Pointers

- Investigating innovative methods utilising local resources can bring recognition to QLD schools.
- Investment into independent systems may require financial support.
- Assessing the feasibility and safety of systems may require an external consultant.

Case Study

Santa Maria College, VIC



The school launched a scheme called Seek7 to enable students to tackle global water challenges. They delved into topics such as water conservation, the protection of WA marine ecosystems, and improving access to clean water, among other pressing issues.

Source: [Seek7: Empowering Students to Tackle Global Water Challenges - Santa Maria College](#)

Water Recycling

Description

Recycled water comes in the form of wastewater, stormwater and greywater. It can be used for various purposes depending on the level of treatment it undergoes.

Key Pointers

- On-site treatment facilities may not be a cost-effective strategy.
- Wastewater strategies should be prioritised, as schemes for stormwater will not be effective all year round.
- Appointing a consultant to design and prepare a maintenance plan and aid in monitoring the system can be beneficial.

Case Study

Orange High School, NSW installed a water recycling system to collect and treat the school's grey water in the bathroom (wastewater from non-toilet plumbing). The system treats the grey water to be reused as clean water for toilet flushing, significantly reducing the school's water usage.



Source: [Sustainable Schools Grants \(nsw.gov.au\)](https://www.nsw.gov.au/sustainable-schools-grants)