



Sustainable stormwater harvesting

We help clients transform stormwater risk to a resource through an integrated approach to stormwater management.

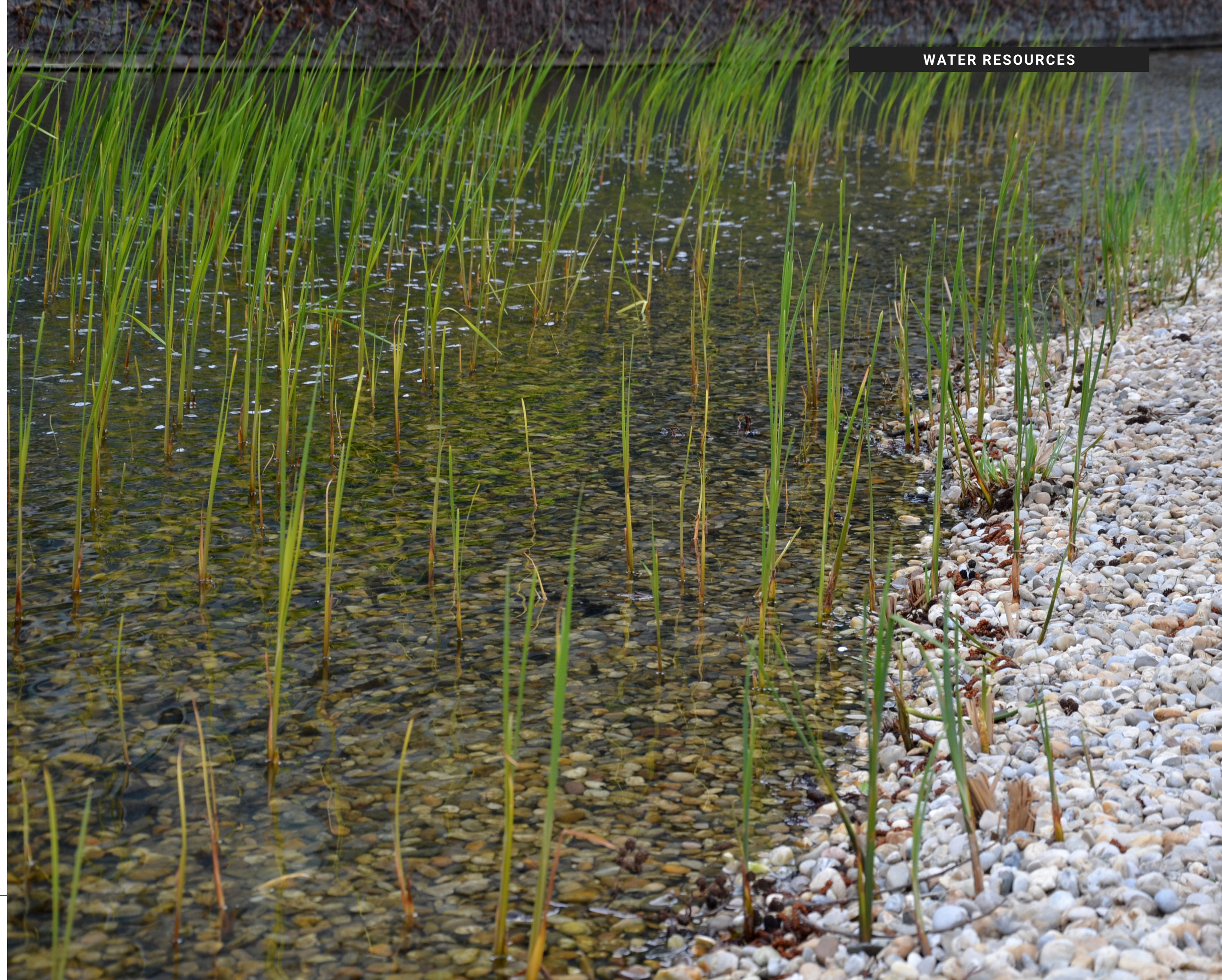
With larger wet weather events and growing urbanisation comes increased stormwater flows, causing significant flooding and pollution concerns for communities. Our team provides planning and design services to simplify stormwater management and the impacts on communities through our innovative Stormwater Harvesting techniques.

Stormwater Harvesting is the capture of urban area stormwater runoff to reuse for irrigation, industrial and residential not-potable purposes. At Stantec we can develop a

Stormwater Harvesting Scheme from initial feasibility to design and implementation. An important benefit of stormwater harvesting providing a sustainable source of water while reducing damaging runoff and pollutants entering our waterways.

Designing a Stormwater Harvesting Scheme to support the environmental outcomes, improving residential, industrial and mixed-use development planning can be achieved at the very beginning of any project, large or small.

Our team have extensive experience and knowledge in stormwater, reusing, recycling and how to reduce the longterm effects on the natural and built environments.





Our project experience

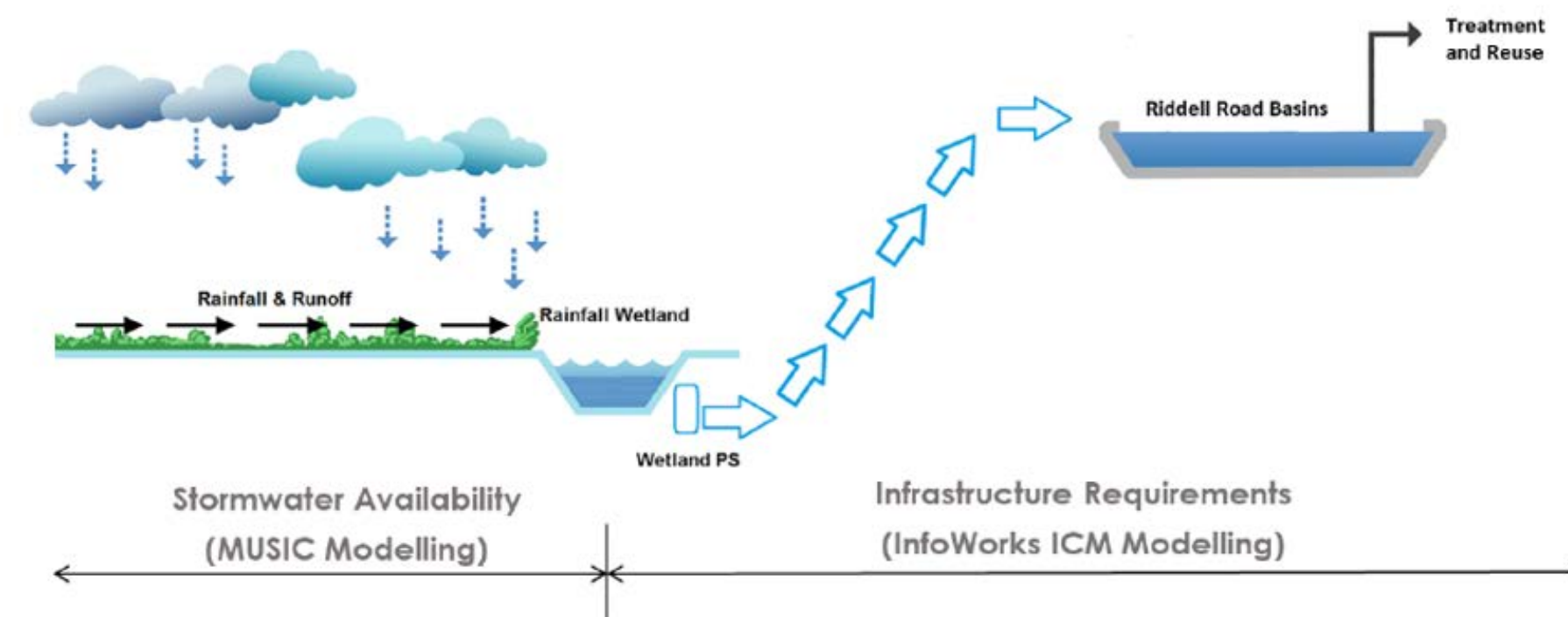
We have extensive experience in the use of innovative Stormwater Harvesting Schemes. From planning, design and implementation, our teams gather data, liaise with local authorities, government agencies and councils to design a solution with community in mind.

MELBOURNE WATER

SUNBURY STORMWATER HARVESTING SCHEME

This project featured the technical challenge of developing a harvesting scheme to capture stormwater from 37 wetlands, reducing urban runoff by 80% and providing an alternative water supply for the region. Our team developed a new hydraulic modelling method to replicate the wetlands, simulate the collection and transfer of stormwater. This provided crucial data to understand hydraulic constraints and pump stations during large rainfall events.

Sunbury Stormwater Harvesting Scheme



FRASER PROPERTIES AUSTRALIA

BRADMILL DEVELOPMENT STORMWATER HARVESTING

Our team developed a large-scale stormwater harvesting system design to meet the non-potable demands of a major infill development and flood mitigation systems. The harvesting system would store underground the untreated stormwater while slowly pumping water through a raingarden to a treated stormwater tank. This design has flood mitigation benefits and improves waterway health by sending overflow treated water into the local drainage system.

OUR SERVICES

Feasibility

At Stantec, our Water Resources Stormwater team can help with scoping opportunities to harvest stormwater based on known water demands at a local community level.

We have multi-disciplinary engineering and design services in water resources, water infrastructure, mechanical, electrical and automation to support any project. We can provide water balance modelling to determine the sizing and reliability of a proposed harvesting system to inform costing and design.

Detailed Design

We can develop a concept into reality. After undertaking a feasibility assessment, we have the in-house team to design a complete harvesting system.

Stormwater Off-take Structures

We can customise a stormwater offtake to minimise impact on existing assets and the environment while maximising water yield.

Pump Stations

We know how pump stations work, where they work best and how many pumps a Stormwater Harvesting Scheme may require. Planning at the

start for the optimal pumping stations is critical to the success factors of a project.

Treatment Solutions

After capturing the stormwater, our designs of treatment solutions come in to play. Whether the project is using a sediment basin or gross pollutant traps, wetlands/biofiltration or any other means, we work hard to develop the right pre-treatment solution, so the next stage is simple.

The secondary treatment design puts the natural environment and community at centre stage. Wetlands and bioretention are natural filtrations that can have a positive result, and look good too.

Pipeline Design

Stable pipeline design considerations include gravity and pressure of the stormwater runoff, collection, pumping, treatment and storage.

Storage Design

How to store the stormwater runoff? Below or above ground tank design, or basin are key factors in designing a Stormwater Harvesting Scheme. We take the time and effort to work with our clients, and their communities on the long-term solution.

Plan Design

With our team of civil, mechanical and electrical engineers, we can provide a bespoke pumping, treatment and control system tailored to your site and specific needs. This allows you to monitor and control the system from the site, a remote computer or even a mobile phone or tablet.

More services:

- **Stormwater Management Planning**
- **Quality and Quantity Modelling Management**
- **Water Sensitive Urban Design**
- **Low Impact Development**
- **Integrated Water Management**
- **Mine Water Management**
- **Catchment Action Plans**



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Stantec office locations:



Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That’s why at Stantec, we always **design with community in mind**.

We care about the communities we serve—because they’re our communities too.

We’re designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe. Stantec trades on the TSX and the NYSE under the symbol STN.

Stantec Australia

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