



210 Healthy Urban Waterways through Innovative Stormwater Technology

Frances Charters, Tom Cochrane and Aisling O’Sullivan, University of Canterbury

A resilient, sustainable city requires healthy waterways. We need great science and technical solutions to guide our management of stormwater infrastructure, to future-proof waterway health. Come hear the latest stormwater research – relevant for strategic planning of stormwater services, operations and maintenance of stormwater infrastructure, consent auditing and more.

Healthy urban waterways are the lifeblood of our cities and one of our primary assets in creating a resilient, sustainable urban area. Yet untreated stormwater runoff from urban surfaces is a major source of degradation to these waterways. We need to tailor our approach to stormwater infrastructure development and management to ensure our urban waterways thrive, while accounting for future climate change effects on stormwater.

The new knowledge and technologies generated via research can guide our stormwater infrastructure planning and strategic decision making, and support environmental stewardship. This presentation covers the latest modelling technology to effectively identify sources of pollution and the research-led development of a new treatment technology to address the thorny pollution problem of ecotoxic dissolved metals.

211 Bundaberg Regional Council Stormwater Management Strategy – A New Path for Council’s Long-standing Challenges IPWEA Queensland Best Paper 2021

Dwayne Honor & Jordan Maultby, Bundaberg Regional Council

The Bundaberg region has typically developed areas where communities are exposed to overland flood risk. The community has varying levels of tolerability and expectation, resulting in Council receiving a large volume of stormwater complaints every year. Currently, Council’s management of stormwater infrastructure is driven by the “loudest voice”, leading to highly reactive investment decisions and potentially unsustainable solutions that are not coordinated.

To break out of this unsustainable regime, Council engaged in a collaborative partnership with AECOM to create an overarching Stormwater Management Strategy (BRCSMS) for the Bundaberg region. The strategy seeks to define a clear level of service and employ risk-based decision making to inform long-term investment decisions. It also brings a holistic vision for stormwater management in the region by increasing awareness and education within the community, capturing social and environmental values, and identifying critical infrastructure needs.

To achieve this, the project team engaged with community leaders and an inter-department working group to achieve consensus through workshops – a foundation of the strategy’s success. Key stakeholders compared local

Water & People

Concurrent Sessions

knowledge against patterns of complaints and flood damage. This information was used to define clusters of risk and inform new capital projects which could then be prioritised using a multi-criteria assessment tool. The strategy saw the commencement of a condition assessment programme which inspected asset condition and evaluated those most at risk. Utilising this data, Council was able to create a 10-year pipeline of stormwater investment projects.

The strategy further addressed the need for a level of service framework based on community values and Council's strategic intent. Using this framework, Council can justify an agreed level of stormwater investment and manage community expectations. The strategy delivers an immediate way forward for Council to address wide-ranging challenges and is currently reshaping Council's service. The BRCSMS project highlights the value of collaborative partnerships and sets the precedent for the management of stormwater in the region.

212 Practical Diversity – Attracting and Retaining Talent through Creating Vulnerability in an Engineering Business

Warner Cowin, Height Project Management

Love, compassion and empathy are not words typically associated with engineering. However, they form the basis for attracting talent, genuinely engaging with stakeholders, and running great workshops. In this presentation, Warner Cowin will share his experience on operationalising values, targeted recruitment, and frameworks for team members to take risk, be customer-focused and personally accountable.

In this session, Height CEO and Chartered Professional Engineer Warner Cowin (Ngāti Porou), talks about his own experiences of growing a business in the traditionally male-dominated engineering and construction sectors.

He'll share practical tips on growing your team and business by being vulnerable, including:

- Senior staff demonstrating vulnerability
- Recruiting by values
- Valuing diversity
- Loving your customers – the Naked Service Model
- Giving away your knowledge
- Discipline of regular values stories/being open about challenges