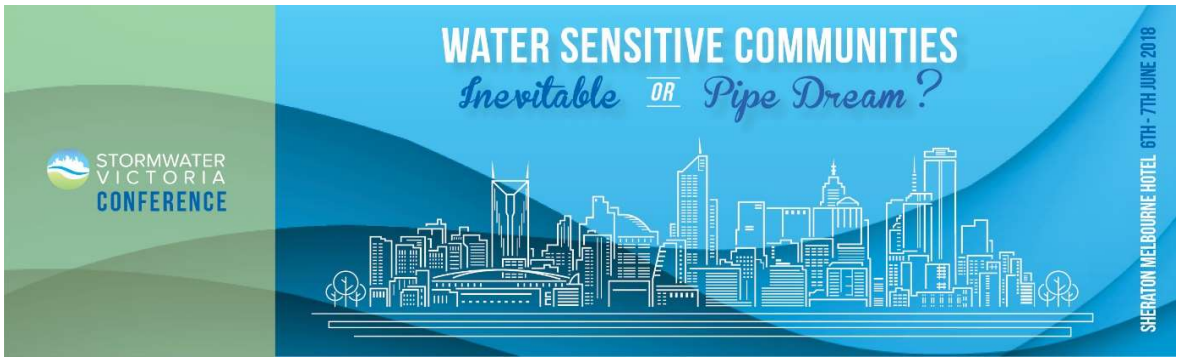

The Business Case for IWM: Ballarat IWM Planning

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E2Designlab and RMCG assisted stakeholders in developing a IWM plan for Ballarat City in Central Victoria. This plan considers the whole urban water cycle, including management of stormwater, wastewater, water supplies and waterways as well as broader liveability and community benefits that can be delivered through stakeholder collaboration and an integrated approach to water management.

This paper considers the economic costs and benefits of the engineering options to determine the feasibility of each, and a business case can be made for IWM investments in regional cities.

Projects were chosen to meet the four IWM objective themes identified for Ballarat of: 1. Protect health of receiving water environments; 2. Provide secure and sustainable water services; 3. Support liveable communities, and 4. Deliverability.

In identifying and quantifying project benefits, we have adopted a Total Economic Value (TEV) framework. The benefits identified include: avoided cost of water supply, changes in productive capacity of agriculture, waterway health improvements, non-use values of recycled water and stormwater, value of increased street tree canopy coverage and public open space. We used a cost benefit analysis methodology to determine the Benefit Cost Ratio and Net Present Value of each project. The team used the Cost Allocation Framework for IWM projects that it developed with the Department of Environment, Land, Water and Planning to determine the distributional impacts on each party – CHW, council, developers, CMA, households and the whole of community.

The outcome was that a suite of options were economically beneficial to whole of society. A project is economically beneficial to the community Benefit Cost Ratio (BCR) greater than or equal to 1, this is where if $1 is invested at least $1 is return to the community through monetised benefits. If we had done a straight financial assessment where we considered the avoided costs only, then we would have only 9 projects to pass the BCR test. However, by including values for other benefits, including non-market ones, were can show that 16 projects would produce a net positive benefit to the Ballarat Community. These included: projects with managed aquifer recharge through avoided potable water costs, waterway restoration, provision of alternative water were viable, irrigation of public open space and increased tree canopy.

The project was able to show that a variety of benefits exists for IWM investments, and that by undertaking an economic evaluation of all benefits we can provide a sound business case for investment.