

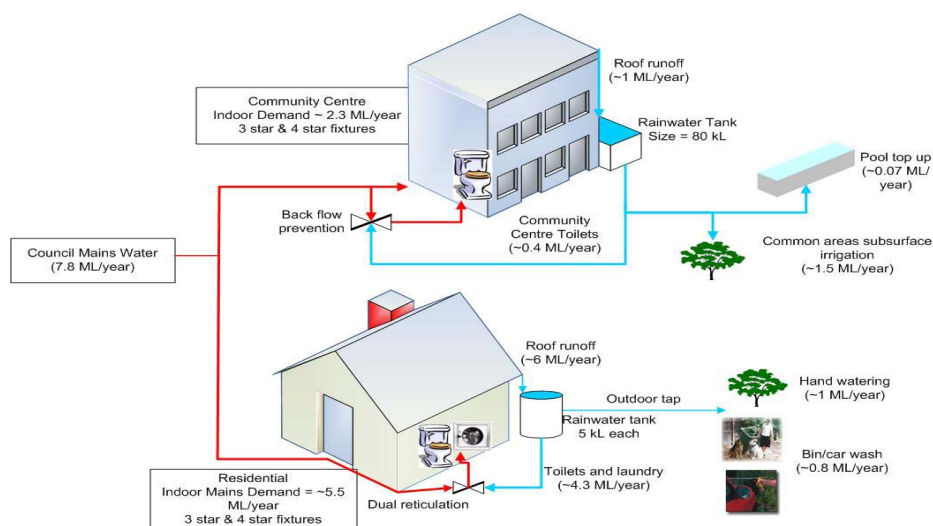
Water restrictions and supply shortages are becoming more pronounced in Queensland, resulting in developers and industry looking closely at the water demand of their sites. Changes to the Queensland Development Codes require that all new commercial and industrial buildings must include alternative water sources.

Water Demand Management Plans (WDMP) offer the opportunity for developers and industry to accurately quantify the water demands of their site and how best to meet those water demands. Water efficiency measures and alternatives to mains water supply are investigated to provide the site with the lowest mains water consumption that can be feasibly achieved.

The benefits of a WDMP include not only reduced water inputs and reduced reliance on mains water but also reduced wastewater discharge and potential increases to profitability through production efficiencies and reduced costs.

SSI are supporting our clients in industry and development by preparing WDMPs which:

- Estimate how much water a new development will use under standard conditions, or accurate water balance of an existing site;
- Develop water demand management options which deliver reduced site water demands
- Calculate savings in water consumption
- Evaluate alternative water sources for the site, including rainwater, stormwater, council recycled water, on-site treatment and reuse options and alternative supply from dams, groundwater or other water sources;
- Estimate how much mains water may be substituted
- Estimate reductions in wastewater discharge from the site
- Provide water saving recommendations
- Investigate economic feasibility of options presented
- Provide regulatory background (i.e. Queensland Development Code, water restrictions) and requirements, ensuring those requirements are met.



Water demand for a simple residential development

## Sustainable Buildings

All new buildings in Queensland are now required to be water efficient, and to include alternative water sources such as treated greywater, rainwater collection or other alternatives to mains supply.

The development of a WDMP will identify various options available for reducing overall water demand and supplying as much of that demand with alternative sources as is feasible.

Buildings which include a variety of sustainability features and exceptional water efficiency may receive the added benefit of being eligible for a Green Star rating.



*A small waste water treatment plant at the Currumbin Ecovillage allows all waste water produced on site to be treated and re-used on site.*

## Sustainable Industry

Industry is now facing tight water restrictions in Queensland and businesses are required to reduce their mains water consumption by 25% by November 2008 or face penalties.

With water costs rising, managing water demands within a business is becoming more cost imperative. By reducing total water demand and securing alternative water sources business are able to safeguard production processes from rising water costs and potential supply shortages.

Businesses showing initiative and innovation with regard to water resource management many also be eligible to become an ecoBiz partner or apply for an ecoBiz rebate.

### SSI can assist developers and industry through:

- Preparing Water Efficiency Management Plans
- Data logging and reporting on water usage rates
- Water Auditing and Water Demand Management Plans
- Managing compliance with water restrictions
- Green Star assessment and applications
- ecoBiz audits and rebate submissions
- Future Proofing water demands
- Recycled Water Safety Plans
- Hazard/ Risk Assessments (HAZOP & HACCP)
- Integrated Water Management Plans
- Treatment plant design, specification, and maintenance



*Boral—Washing out cement trucks with recycled water and high pressure hoses to reduce water usage. Wash-down water is collected in settling pits for further treatment and reuse*

**We deliver sustainable water management strategies which do more than meet regulatory requirements, they add value to your business through the application of the triple bottom line principles of environmental, social and economic outcomes.**

## Project List

SSI has prepared WDMPs for numerous residential and mixed use developments, as well as for a variety of industrial sites, including:

### Brisbane Square

Brisbane Square, a 40 story office building located in the heart of Brisbane's CBD, will be the new head office for Brisbane City Council and Suncorp. Brisbane Square is set to become Brisbane's showcase sustainable office development.

SSI devised a sustainable water management scheme for the building that incorporated rainwater reuse and on-site wastewater treatment and recycling for toilet flushing, irrigation and water feature top-up. SSI provided ABN-Amro with a feasibility investigation and the schematic design of a Membrane Bioreactor recycling plant that will be installed to treat the building's wastewater and provide recycled water for reuse.



### Australand Commercial Industrial (Coles/ Myer Distribution Centre, Goulburn)

### Highfields Village Shopping Centre

### Sydney Water Head Office Building

The proposed Sydney Water head office building is located in Parramatta CBD in Sydney's west. The proposed building will be 15 stories high and support a population of 1725 office workers. The client's requirement is for the formulation of an environmentally sustainable office building concentrating principally on a water management strategy in-line with the principles of triple bottom line economic evaluation and environmental sustainability. SSI is currently preparing a sustainable water management strategy looking at rain water reuse for potable water supply and onsite wastewater treatment and reuse to supply water for toilet flushing and irrigation for this project.



### Murrumba Downs Retirement Village

### Meadbrook Mixed Development, Dutton Park

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