



## Submission to Parliament of Victoria

### Environment and Natural Resources Committee

I am writing to make comment on the merits of various options for Melbourne's future water supply. My submission consists of two main points; the first is that further water savings need to be made by increased conservation and efficiency efforts and the second that desalination plants should be a last resort as they damage the environment more than other options.

#### **Increased conservation and efficiency efforts:**

- Despite reductions in water use in recent years Melbourne still uses a large amount of water per capita in comparison to cities of similar size and type.
- All new houses and homes for sale or rent should be required to reach minimum water efficiency benchmarks. This system could be similar to the mandatory energy efficiency ratings for new homes.
- The government should set up an auditing department with personnel to visit households to provide water efficiency advice and hardware (such as flow restrictors). Households with excessive use would be the first targeted and incentives could be given to households that achieve savings.

#### **Small locally based desalination plants:**

- Water desalination is the most energy intensive method for procuring water. This has two major problems, the first being that the energy used would have resultant greenhouse gas emissions. In this age of global warming this fact alone should be enough to remove desalination as an option. The second problem is that large energy consumption results in high costs for energy bills. With carbon trading beginning in coming years the cost of energy use will only continue to rise.
- Desalination plants are noisy. They create industrial levels of noise often in pristine environments such as coastlines.
- Desalination creates pollution and waste. Sediment that builds up in filters and membranes must be disposed of in environmentally responsible ways and hypersaline by-product must also be returned to the environment. Port Phillip Bay does not have an adequate level of flushing to allow hypersaline liquids to be safely returned into it.
- The assumption that Melbourne needs a rainfall-independent source of water is a fallacy. Melbourne's enormous water storages provide an insurance policy during times of drought. The worst drought in history during 2004-2006 failed to dry up the storages. Storages will slowly refill in the years following a drought to provide storage for the next dry period.

In conclusion, Melbourne's future water supply needs to come from increased conservation and efficiency measures. Supply could also be increased by reuse of treated waste water and stormwater. Desalination should be the last resort as it is costly, results in the release of excessive greenhouse gas emissions and produces by-products that can be difficult to dispose of.