

City of Casey Integrated Water Management Plan

Realising best practice stormwater management through IWM Planning & Development of an IWM Business Case
City of Casey, Victoria



Key Messages

- With support from Living Rivers the City of Casey has developed a Citywide Integrated Water Management Plan with commitments to targets and appointed a dedicated Water Champion
- Established a business case for IWM that assisted Council to take a proactive approach to Water Management asset maintenance and renewal to improve water quality and enhance liveability
- Invested in water demand management and alternative water supply projects towards a more cost effective and integrated water management approach for the Casey Community.
- This approach and partnership will help the city move towards a healthier, greener and more liveable future

Project Overview

The City of Casey inherits a large number of WSUD assets from developers under statutory planning provisions. To assess options for the ongoing management of these assets the City of Casey, with support from Melbourne Water's Living Rivers program, has developed an IWM Plan that outlines Council's vision to create a Water Efficient City.



An example of a water stormwater asset in the City of Casey

Outcomes

The Business Case for IWM – Demand management and water supply

In addition to significant cost savings (approx. \$2.1 million net present value over 30 years at a 5.5% discount rate) the demand management and alternative supply scenarios offered additional benefits to Council such as reduced stormwater pollutant loads entering two Bays and water availability during drought periods, improving liveability outcomes.

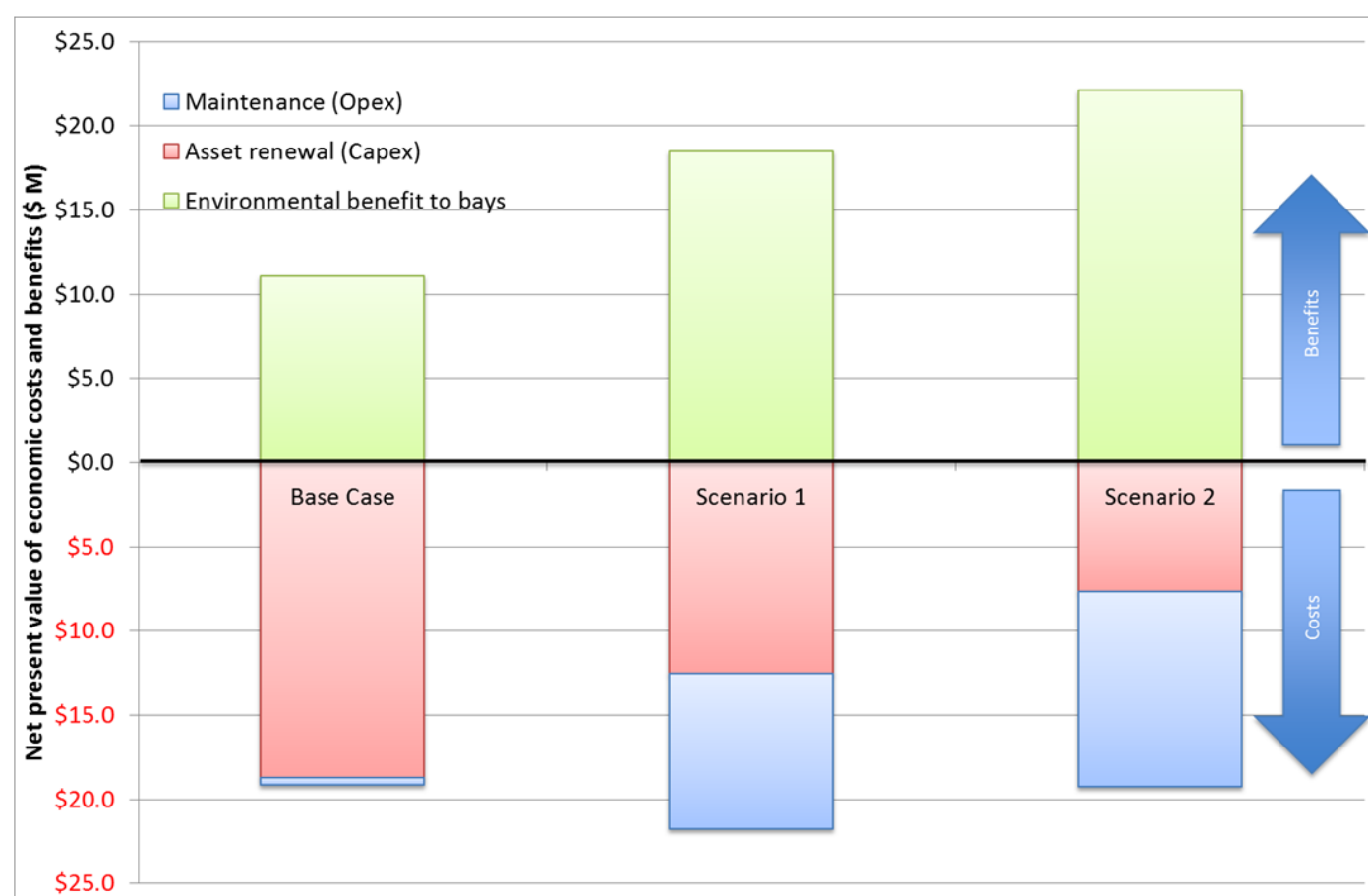
The Business Case for IWM – Maintenance and renewal of stormwater assets

The City of Casey has over \$16 million worth (2013-14) of stormwater management assets. Lack of maintenance could result in the premature failure of many of these assets and therefore proactive annual budget allocation for renewals was required to deter future failure of assets.

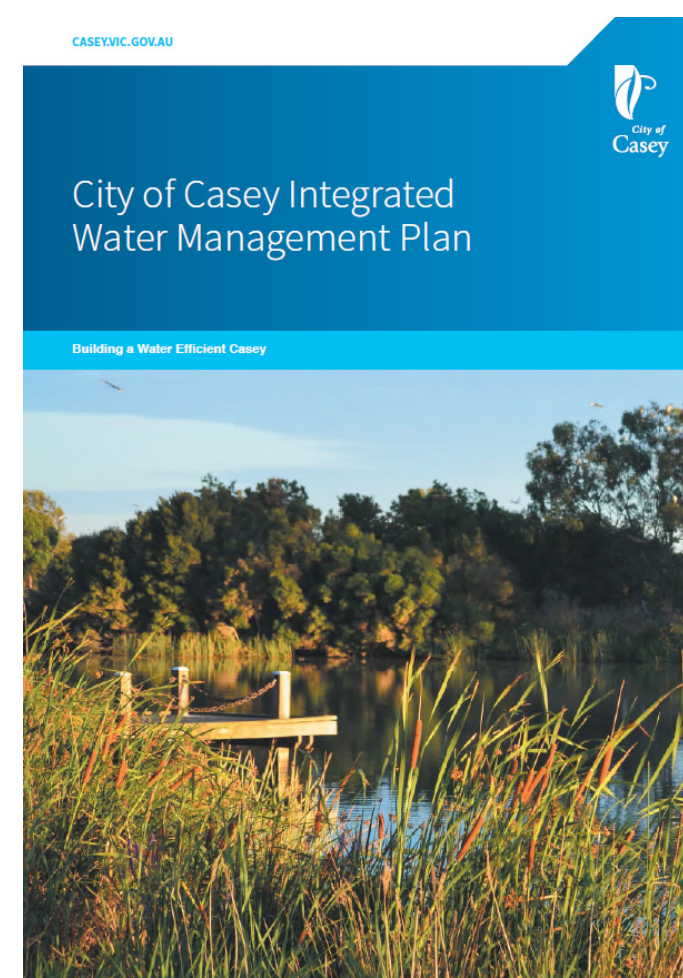
The business case explored the lifecycle costs (for tangible and non-tangible benefits) over a 30 year timeframe for different maintenance and asset renewal options:

- Base case (business as usual with minimal maintenance and accelerated renewals)
- Option 1 (full maintenance of all existing and future gifted assets within 10 years)
- Option 2 (full maintenance undertaken immediately)

Option 1 was recommended as the preferred way forward. A business as usual approach is expensive in the long term and the assets' functionality are compromised. It was more financially realistic to gradually increase investment than allocating a significant upfront investment as outlined in Option 2. This allows Council the flexibility to build upon learnings and experience as it expands its maintenance program and realises greater efficiencies.



Economic costs and benefits of asset maintenance and renewal
Source: E2Design, RMCG and City of Casey



Casey's Integrated Water Management Plan

Integrated Water Management Plan Targets

The IWM Plan commits to ensuring that all new residential developments comply with best practice requirements and all new assets built by developers comply with Council asset handover requirements. The Plan also sets out targets for establishing alternative water sources and substituting the rising cost of potable water and its use.

Implementation Plan

An implementation plan was developed for structural and non-structural actions to be delivered to achieve Council's IWM targets. With funding from Living Rivers, the City of Casey has begun to deliver key innovative projects supported by business cases for IWM.

Employment of a Water Project Officer

With funding support from Living Rivers, the City of Casey appointed a dedicated water champion as a Project Officer to oversee development and implementation of the City's IWM Plan. The officer has also worked across the region to strengthen the business case for IWM by reviewing and updating Council's water policies, evaluating the budget required for improvement and maintenance of Council's water management infrastructure.

Future work

The actions recommended in the IWM Plan include strategically identifying opportunities for Integrated Water Management, delivering upgrades or retrofits to facilities to minimise potable water use and delivering infrastructure that improves the quality of stormwater runoff. It also recommends better management and maintenance of assets and strategic planning through business cases, modeling and mapping. Through these actions the City of Casey is successfully implementing the IWM plan.

Lessons Learnt

- Without maintenance and renewal, WSUD assets will become a liability rather than an asset, making Council vulnerable to community complaints and legal exposure.
- Managing water in an integrated way benefits the environment and whole community.
- In the absence of pro-active management and a champion ecosystem protection, water saving and integrated water management objectives to enhance liveability cannot be realised.



Examples of proactive WSUD renewal and maintenance WSUD projects in the City of Casey.

More Information
For more information visit <https://www.melbournewater.com.au/livingrivers>

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