

Integrated Water Cycle Management in the Barwon Region

Barwon Water



Utilities, councils, developers and other key stakeholders in the Barwon region have a keen interest in adopting good practice Integrated Water Cycle Management (ICM) particularly in the context of prolonged water stress and population pressures and the opportunity to influence the design of new urban developments.

Barwon Water realised that for a system as complex as the urban water cycle, collaboration with key players is critical to achieving greater system resilience. In 2012, they spearheaded the establishment of the Barwon Region IWCM Network with local government and the Corangamite Catchment Management Authority to commit to a more integrated approach to urban and water planning. Through collaborative projects the Network have developed clear processes and tools to help facilitate implementation of IWCM in practice.

Implementation

The Geelong region is one of the fastest growing in Australia and experienced considerable water management challenges during the millennium drought. New urban landscapes are being planned and designed at a rapid rate. A key challenge for urban planners, developers and governments is how to design and build new urban landscapes which are more liveable for residents and more resilient to external pressures like climate change.

While utilities, councils, developers and other key stakeholders share an interest in adopting good practice, integrating urban and water planning can be complex and difficult meaning opportunities are missed and/or inefficiencies arise. All participating stakeholders have recognised the need and opportunity for greater cross agency collaboration to help ensure the water cycle is considered as early as possible in the design stages of new

developments. Barwon Water led the creation of Victoria's first Integrated Water Cycle Management Network. Established as a partnership between the water corporation, Catchment Management Authorities and Local Government, the Network commits the agencies to working towards a more integrated approach to urban and water planning. The partnership assists to coordinate, raise awareness, and build knowledge and confidence in tools around IWCM. The Network has initiated various projects across the region pioneering a more integrated approach. These include:

- Colac IWCM Plan – a whole of city water cycle-based masterplan. This was developed in collaboration with key agencies in Colac to deliver a broader community vision.
- Urban Water Cycle Planning Guide – an online resource to help urban developers, consultants and planners embed the concept of IWCM into the design of new urban subdivisions. This includes built and natural infrastructure as well as water servicing options.



- Atlas of alternative water opportunities – a detailed database describing all existing, planned and potential demands and supply nodes for alternative water for use in all serviced areas across the region.

In the past five years the region has continued to push the boundaries of integrating water and urban planning with Barwon Water leading the preparation of IWCM plans at various scales, (township, precinct and sub-precinct). The utility has created an online guide to help consultants negotiate the integration process (www.urbanwaterplanner.com.au). Key members also developed an innovative process to better integrate the water cycle considerations in urban masterplanning and developed a peer reviewed paper with presentations at various state and national forums (Overman et al, 2016).

Benefit / Outcome

- Cross agency collaboration and relationship building.
- Capability building in Integrated Water Cycle Management.
- Efficient city planning and decision making.
- Better solutions for resilient communities.

Further References

For more information please go to the Barwon Water online guide (urbanwaterplanner.com.au).



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