

Victoria's Integrated Water Planning Framework – The Goulburn Broken Case Study

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ABSTRACT

The Victorian State Government through the Department of Environment, Land, Water and Planning (DELWP) released the Integrated Water Management (IWM) Framework for Victoria in October 2017. This Framework supports the delivery of Water for Victoria, the State Water Plan, by setting clear direction for collaborative planning and engagement for the water sector.

The Framework supports the establishment of IWM Forums across Victoria and provides details on the Forum area (see Figure 1 below), structure and governance to support the implementation of the collaborative IWM planning and investment to delivery shared community outcomes. IWM Forum members include regional stakeholders involved in the urban water cycle including Water Corporations, Local Government, Traditional Owner groups, Catchment Management Authorities and State Government agencies.

The intent of the following paper is to share with the industry the approach and key lessons learnt through the implementation of the IWM framework in the Goulburn Broken region.

The Goulburn Broken IWM (GBIWM) Forum is one of 15 IWM Forums established across Victoria and includes the following members:

- Goulburn Valley Water Corporation
- Goulburn Broken Catchment Management Authority
- Goulburn Murray Water Corporation
- Greater Shepparton City Council and the Shires of Campaspe, Mitchell, Moira, Mansfield and Murrindindi
- Department of Environment, Land, Water and Planning
- Parks Victoria
- Yorta Yorta Nation Aboriginal Corporation
- Taungurung Clans Aboriginal Corporation

The Goulburn Broken IWM Forum aims to provide clear strategic direction for urban water management. This is set out in a Strategic Directions Statement (SDS) which is being developed as one of the first Milestones for the Goulburn Broken IWM Forum and will become one of a suite of SDS developed for IWM Forums across Victoria. The Goulburn Broken IWM Forum is the first Forum in Victoria to develop and gain endorsement of the Strategic Directions Statement by all Forum members. The SDS outlines the regional vision, outcomes, objectives, key regional challenges and priority IWM opportunities that will be collectively delivered in the short and long term.

The Forums terms of reference:

- consider the collective community needs in the regional context and develop an overall strategic direction accordingly;
- complement and feed into existing water and land planning processes, collaborative networks, forums and associations;
- ensure multiple benefits can be delivered to the community and the economy;
- optimise investment in water management with a focus on urban water; and

- facilitate multi-party initiatives

In the Goulburn Broken IWM Forum area, the governance model is supported by stakeholder involvement at two levels within their organisations:

- *Executive level through quarterly forums, designed to maximise organisational commitment to identifying, developing and progressing collaborative IWM opportunities;*
- *Practitioner level through regular working groups, designed to build capacity and ensure focus on priority IWM opportunities*

The engagement process completed to date includes:

- *Early engagement – defining IWM in each organisation, champions and exploring IWM opportunities*
- *Testing IWM opportunities*
- *Endorsement of IWM opportunities*
- *Project refinement phase*
- *IWM opportunities refinement, exploring cofunding of projects and lessons learnt*

The results achieved to date through the GBIWM Forum include:

- *Twelve IWM projects that Forum members will use their best endeavours to deliver over the next 24 months, including strategic planning and engagement initiatives as well as design and delivery*
- *All stakeholders acknowledging value of the process, with demonstrated outcomes through projects that achieve multiple benefits, have investment from multiple organisations and have a reduced capital/whole of life cost*
- *The understanding of IWM and its potential is being demonstrated through learning by doing*
- *Organisational support and strategic focus is increasing with all organisations defining how best they implement IWM into their businesses*

The following conclusions summarise the success of the GBIWM Forum to date:

- *regional leaders who are willing to instigate change and who have built strong relationships over an extended period*
- *in the short to medium term regular engagement is required to build trust, create accountability and continue learning. Early implementation of IWM will require additional engagement (and resources) and support beyond current business as usual practice*
- *the ability to demonstrate good will and having some 'skin in the game' through project funding or the potential to gain efficiencies in project delivery of lifecycle costs will keep the process*
- *the longer-term success of the forum should be to assess how implemented projects are impacting resilience and liveability of cities and towns and the affordability of water services in the Goulburn Broken region.*

1. INTRODUCTION

The Victorian State Government through the Department of Environment, Water, Land and Planning released the Integrated Water Management Framework for Victoria in October 2017. This document followed the State Water Plan, Water for Victoria which sets clear direction on future planning and engagement for the water sector.

The Framework was created as a guidance document to increase integrated planning between all stakeholders involved in the urban water cycle including water corporations, local government, Traditional Owner groups, catchment management authorities and State Government agencies. The Framework supports the establishment of IWM Forums across Victoria and provides details on structure and forum areas (see Figure 1 below), governance and support in the implementation of the planning process.

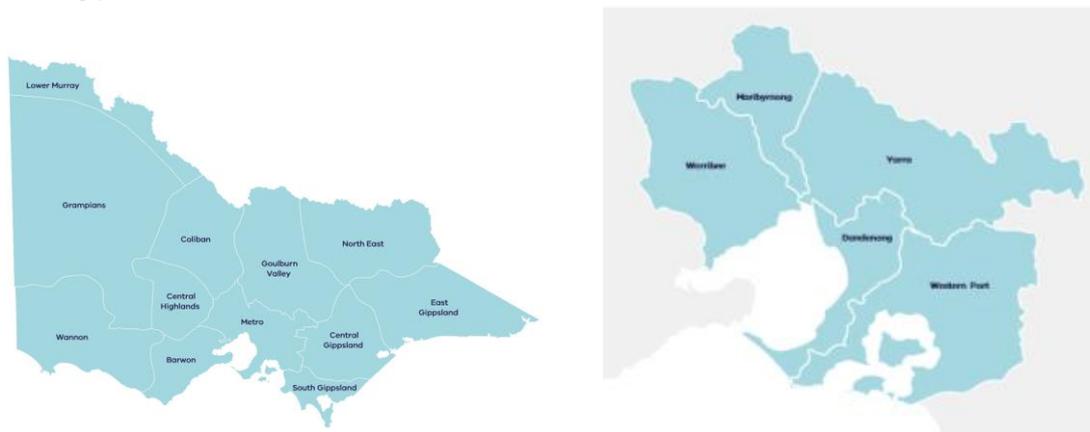


Figure 1 – IWM forum areas for Victoria and metropolitan Melbourne

One of the forum areas initiating the framework implementation was the Goulburn Valley region, which initiated the Goulburn Broken IWM forum in September 2017.

As the urban water authority for the region, Goulburn Valley Water became the designated forum lead organisation, required to facilitate the forum inception and stakeholder engagement.

In October 2017, the GBIWM forum appointed Foresight Advisory as the lead facilitator to coordinate the forum setup and engagement processes.

The GBIWM forum area includes the following stakeholders:

- Goulburn Valley Water – responsible for urban water and sewer services
- Goulburn Broken Catchment Management Authority – works with communities and government agencies to manage activities to protect and improve the Catchment's land, water and biodiversity
- Goulburn Murray Water – responsible for providing bulk water storage and supply services to communities of Northern Regional Victoria
- Six Regional Councils including Campaspe, Mitchell, Moira, Mansfield, Murrindindi Shires and Greater Shepparton City Council
- Department of Environment, Land, Water and Planning – Agency responsible for leading State Government Policy
- Parks Victoria - responsible for managing national parks, reserves and other land under the control of the state, including historic sites and indigenous cultural heritage sites
- Yorta Yorta Nation Aboriginal Corporation – The registered aboriginal party for the Goulburn Broken Region
- Taungurung Clans Aboriginal Corporation

2. OBJECTIVE

This Framework utilises the knowledge and experience of water sector organisations. This is the first time that the systematic application of collaborative IWM has been designed and promoted at a state-wide scale in an Australian context. The IWM approach complements and feeds into existing water and land planning processes.

The objectives of the IWM Framework are to:

- Provide organisations who manage the various aspects of the urban water cycle clear accountabilities
- Enable the allocation of benefits, costs and risks for integrated solutions
- Increase collaboration in the development of IWM solutions across organisational boundaries
- Clear line of sight for the water sector and government

The Forum's objective is to provide a clear strategic direction for urban water management which is set out in a Strategic Direction Statement (SDS).

The SDS outlines the regional vision, objectives, key challenges and priority opportunities that will be collectively delivered in the short and long term.

The Forum's terms of reference are defined as:

- consider the collective community needs in the regional context and develop an overall strategic direction accordingly
- complement and feed into existing water and land planning processes, collaborative networks, forums and associations
- ensure multiple benefits can be delivered to the community and the economy
- optimise investment in water management with a focus on urban water
- facilitate multi-party initiatives

3. METHOD

The GBIWM forum establishment was a two-phase approach which included:

- Phase 1 - Engagement with executive leaders within each stakeholder organisation, to build top down support for IWM planning and defining key strategic drivers for the region (outlined in the strategic direction statement)
- Phase 2 – Establishing an IWM working group with key organisational champions to build capacity and explore potential IWM opportunities

The overall GBIWM forum governance model is outlined in Figure 2.

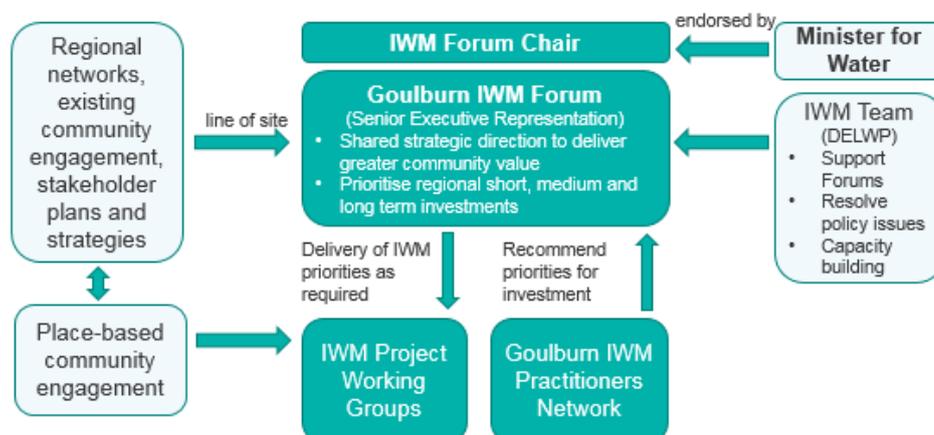


Figure 2 – GBIWM Forum Governance Model

3.1. Phase 1

DELWP and the GBIWM chair met with key organisational executives to define the intent and value of the IWM Framework. Through facilitated workshops the key regional drivers for the Goulburn Broken IWM were defined in a strategic direction statement.

The broad content of the strategic direction statement is provided in Figure 3.



Figure 3 – Strategic Direction Statement Contents

The key strategic drivers defined for the Goulburn Broken IWM forum are defined below.

Population growth

The population of the Goulburn Broken region is set to grow by 215,000 people by 2030, with the highest growth expected in Kilmore and Shepparton/Mooroopna.

Climate change impacts

Temperatures across the region are set to rise by an average of 1.7°C to 2.7°C by 2050. This temperature increase will further impact the urban heat island effect, leading to risks to environmental and human health. Ensuring the provision of fit for purpose water for the region's urban greening will be a key priority for liveability and resilience for the community and environment

Public Health and Wellbeing

The relationship between public health and wellbeing and the environment is becoming increasingly recognised as an area of importance. The region has above average indicators for both obesity and incidences of mental health.

Rainfall and Flooding

In the high country to the south east of the region, the annual rainfall is around 1600 mm, while in the north west of the region it is as low as 400 mm. This is predicted to decrease by 5 per cent by 2050, with the greatest reduction felt during autumn and winter. Despite this, extreme rainfall events will become more frequent, increasing the frequency of flooding events. With the major urban centres typically settled on rivers and floodplains, floodplain management and the implementation of appropriate planning controls will continue to be a priority for the region.

Waterway Health

The region's riverine assets support threatened species (including Murray Cod, Silver Perch and Macquarie Perch), contain important cultural heritage sites and provide consumptive water for agriculture and urban centres.

The riverine assets are also increasingly being embraced by the urban communities for their aesthetic, recreational, tourism and restorative appeal. An example of this is the multi-partner River Connect project undertaken at ???.

As a result of flow modifications, several tributaries of the Goulburn and Broken Rivers are flow stressed, impacting on riparian health and in stream habitat. Further streamflow reductions of 13.7%

for the Goulburn system and 16.8% for the Broken system may occur by 2065 under median climate change scenarios.

Water Supply & Sewerage

Potable water and sewerage services are provided to 54 cities/towns in the region, including 31 with reticulated sewerage services and water services to another 23. From an urban water supply perspective, the region is relatively secure. Driven by population growth, climate forecasts or asset age, there are several water and wastewater facility upgrades planned for the region over the coming decades 2018-2023. These are outlined in the Goulburn Valley Water 2065 Urban Water Strategy, including the water treatment assets at both Seven Creeks and the Broadford/Kilmore area.

Small towns wastewater is a common issue amongst the region's stakeholders, from both a technical, governance and financial perspective.

Water for Economic Growth

The importance of water for economic growth is realised through:

- The economic value of large industries and their reliance on a secure water supply
- The value of tourism and ensuring a high standard of presentation of key regional towns through urban greening and high amenity
- Creating a resilient community ensuring high value public spaces remain green during drought periods

3.2. Phase 2

Foresight Advisory led the practioner engagement approach which included:

- An introductory meeting to outline the IWM framework and explore potential IWM priorities
- Initial scoping of IWM opportunities with each stakeholder, including defining cross organisational support
- Practioner workshop to share organisational IWM opportunities, enable cross organisational feedback and rank them based on a simple prioritisation matrix based on impact and urgency
- Update the IWM opportunities, confirming cross organisational financial and in-kind support
- Submit the IWM opportunities for funding to cover funding gaps
- Prioritising projects based on short, medium and long-term timeframes

The following were key considerations when defining IWM opportunities for each stakeholder:

- The appropriate scale
- The project scope aligned to existing organisational priorities
- The project was aligned to the existing combined needs of regional stakeholders

These considerations were critical to ensure that the opportunities defined best aligned to the organisational capacity of the lead and supporting organisations.

The projects selected for funding were based on transferability, capacity building, alignment with existing policy and regional priorities.

4. RESULTS:

Over a six-month period, the GBIWM forum was able to provide several clear outcomes for the region including increased local capacity in IWM, increased cross organisational engagement and relationship building and twelve IWM projects forecast for delivery over a 24month period. Each of these outcomes are further defined below.

4.1. Capacity Building

During the forum establishment phase, capacity building was a large focus for the facilitation team at an Executive Management and practioner level.

Executive Management level

The capacity building at the organisational executive management level focussed on:

- Building an understanding of the framework principles and broader value of IWM
- Enabling organisational support for IWM planning
- Ensuring the correct organisational representatives were included in the practitioner working group
- Establishing a key strategic direction and key decision making

Practitioner Level

The capacity building at the practitioner level focussed on:

- Initial introductory meetings providing a practical and easy to understand explanation of IWM and its value, particularly for the community within the Goulburn Broken region
- Providing support to practitioners in the engagement with key organisational stakeholders, across departments and levels
- Working with organisations to build IWM opportunities based on existing organisational priority areas and strengths
- Working through the value of an IWM approach versus a business as usual approach, using real example opportunities in a learning by doing approach
- Ensuring practitioner workshops were engaging and sharing ideas around the opportunity development process and the value it can provide at an organisational and community level
- Transparency around the opportunities development and prioritisation

4.2. Cross Organisational Engagement

Early in the engagement process, there was a recognition that IWM planning has been limited due to the lack of cross organisational discussion around the urban water cycle at an early planning phase, which has fragmented responsibilities across organisations.

Sharing the insights into IWM success stories for the region fast tracked the cross organisational collaboration. In particular, projects including Eastbank Lake, the Kilmore Offsets Program and the River Connect Program were used as examples how IWM can provide value through:

- Community engagement and buy-in improving project outcomes
- Projects considering non-business as usual approaches to achieve improved economic, social and environmental outcomes
- Organisational collaboration resulting in increased capital expenditure

Sharing other relevant Victorian examples and learning from the facilitation team was also important to build confidence in the process.

4.3. Opportunity Creation

The following were key considerations when developing the scope of the IWM opportunities for the GBIWM forum, to maximise the potential for success:

- Organisational capacity and understanding of IWM when determining the scale and approach
- Cross organisational alignment. Where opportunities were priorities across organisations, this increased the potential for in-kind and cash support
- Timing of delivery
- Clearly defining multiple benefits across a projects' lifecycle considering economic, environmental and social value.

In total twelve IWM opportunities were defined and endorsed by the GBIWM forum, with the potential staged delivery over the 24months. The projects included:

- Four township scale IWM plans
- One whole of council strategic IWM plan
- Two precinct scale IWM project
- Two waterway management focussed plans
- One wastewater management focussed plan for the region

5. CONCLUSION

The following conclusions summarise the success of the IWM Framework implementation, in particular the key outcomes demonstrated by the GBIWM forum to date. These conclusions also provide

guidance to the industry for the successful implementation of IWM outcomes within a regional or precinct context.

The value of established regional leadership

The Goulburn Broken region is fortunate to have established industry leaders in IWM who have been advocating the value of this process for a number of years. In particular, Goulburn Valley Water and Goulburn Broken Catchment Management Authority have committed time and seed funding to support the industry leading projects in the region. These leaders are willing to instigate change and work together in a partnership approach.

Open dialogue and a focussed approach

Over a short period, with a clear view of the final outcome at a strategic and delivery scale, the GBIWM forum has leveraged open and honest dialogue across stakeholder groups, developing a common focus for success. In the short to medium term regular engagement has built trust, created accountability and continued learning.

Good will and having 'skin in the game'

Once the IWM opportunities were defined with clear common value across organisations, the good will across the stakeholder groups demonstrated a commitment to change and improvement. Once the legitimacy of opportunities was tested and scope confirmed, organisations committing funding to projects made the IWM opportunities real and implementable.

Multiple values of implemented projects

The longer-term success of the forum should be to assess how implemented projects are impacting resilience and liveability of cities and towns in the Goulburn Broken region. All opportunities defined through the forum process demonstrate a commitment to the future improvement of the region with strong community benefits. The IWM opportunities defined through the forum process achieve a number of the outcome areas defined in the Water for Victoria Government direction document. This is demonstrated in Figure 4 below, with each coloured bar representing an individual IWM opportunity rating against each outcome area.

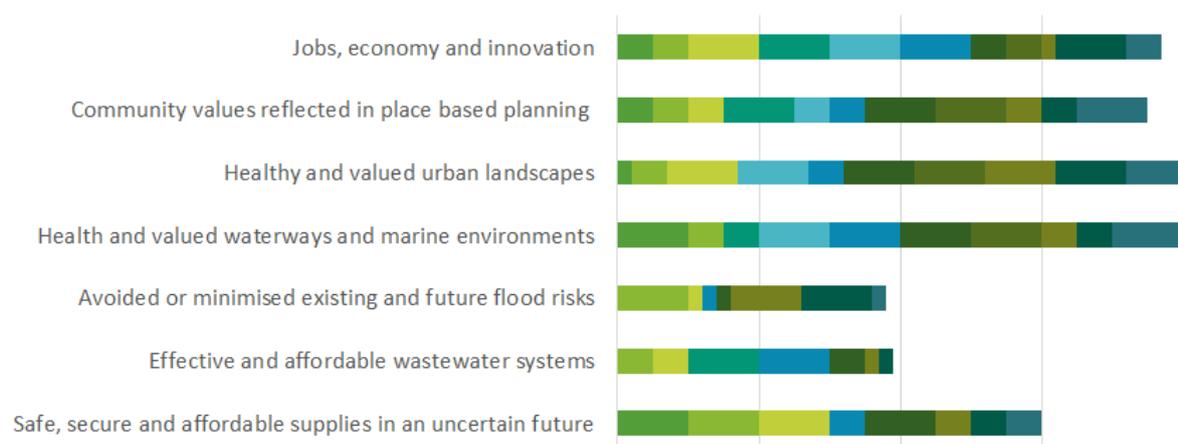


Figure 4 – IWM Opportunities mapping against IWM outcome areas

6. ACKNOWLEDGEMENT

In addition to the authors of this paper the following people have been key in the delivery of the GBIWM outcomes achieved to date:

- Steve McKenzie – GBIWM Forum Chair (Goulburn Valley Water – General Manager Technical Services)
- Alan Tyson (Goulburn Valley Water – Manager Strategy, Planning and Environment)
- Anna May (DELWP – Senior Manager Regional Integrated Water Management)