

AUSTRALIAN WATER REFORM ROADSHOW



TRANCHE 2 CURRENT STATE OF WATER
REFORM IN AUSTRALIA

MODULE 2 METROPOLITAN WATER
SERVICES IN VICTORIA

- Please note **this session will be recorded**
- The recording and slide pack from this webinar will be made available to you following this webinar
- For the Panel Discussion please send your questions through the **Q&A** function
- Select to **“All Panellists”** when you are posing your questions
- SPICAE will provide written responses for unanswered questions
- SPICAE are happy for participants to contact us directly for clarifications or further information
- SPICAE have done individual sessions for councils in the past when they have asked us to
- Please provide SPICAE with feedback – this is important for us to continually improve future webinar sessions

Rules of Engagement / Code of Conduct

- SPIACE & our panel are cognizant of the NZ Reforms.
- These sessions are on the Australian Reforms & aimed at enabling a reference point for attendees to draw comparisons to the current reforms in New Zealand.
- SPICAE & our panel will endeavour to provide an **Unbiased View** of the Metropolitan water services in Victoria.
- **Please align questions to the Module Topic.**
- While this is being done for the DIA & 3 Waters Steering Committee, please do not ask us question for either of them.

TRANCHE	TRANCHE THEME	MODULE TOPIC
1	REFORM & GOVERNANCE	WATER REFORM JOURNEY (VIC)
		WATER REFORM JOURNEY (TAS)
		GOVERNANCE (BOARDS, OWNERSHIP & LEGISLATION)
2	CURRENT STATE	CURRENT STATE OF WATER SERVICES - REGIONAL & IRRIGATION (VIC)
		CURRENT STATE OF WATER SERVICES - METRO VICTORIA
3	STORMWATER, ENGAGEMENT & THE FUTURE OF WATER	CURRENT STATE OF WATER SERVICES - TASWATER
		STORMWATER MANAGEMENT (VIC & TAS)
		THE FUTURE ROADMAP FOR WATER (VIC & TAS)
		COMMUNITY ENGAGEMENT & CUSTOMER EXPERIENCE
4	COUNCILS	INDIGENEOUS ENGAGEMENT (WA and VIC)
		THE COUNCIL REFORMS (VIC)
		THE CURRENT STATE OF LOCAL GOVERNMENT
		THE FUTURE ROADMAP FOR COUNCILS



Pat McCafferty

- Managing Director, Yarra Valley Water
- Director of WaterAid Aus
- Chair of Thriving Communities Partnership
- Former GM Strategy & Comms, and Customer Operations at YVW



Charlie Littlefair

- General Manager Liveable Water Solutions at South-East Water
- Former GM Asset Creation and Capital Delivery, SEW
- Former GM Assets & Investment and Infrastructure Services at Metrowater (NZ)



Jeff Rigby

- Chief Executive Adviser at Greater Western Water
- Former MD of Western Water, Coliban Water and Grampians Wimmera Mallee Water

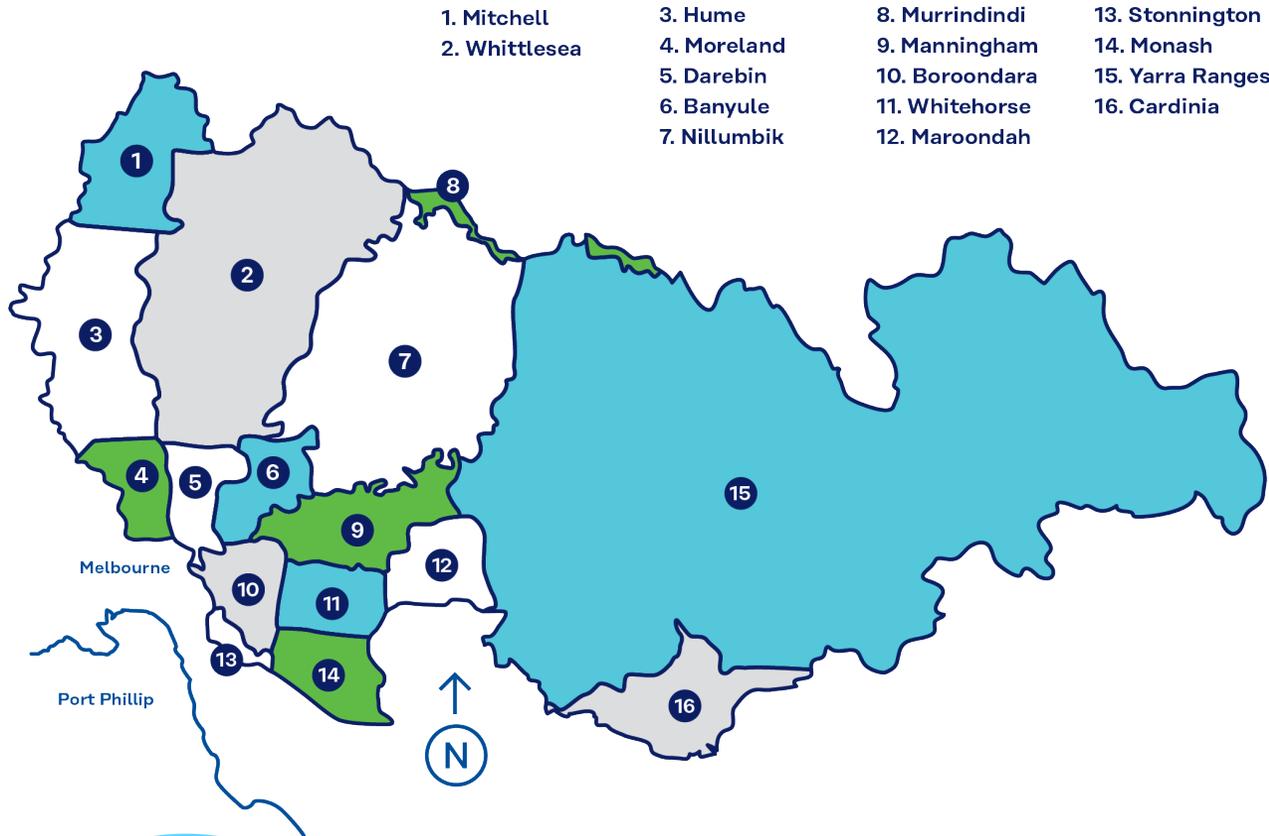


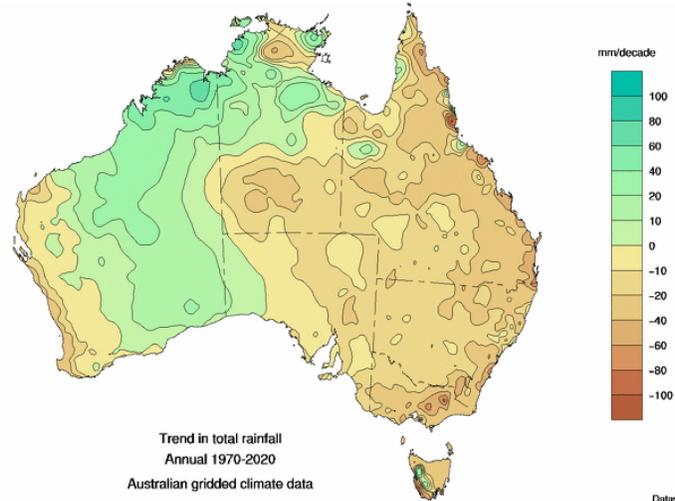


Metropolitan Water Services in Victoria

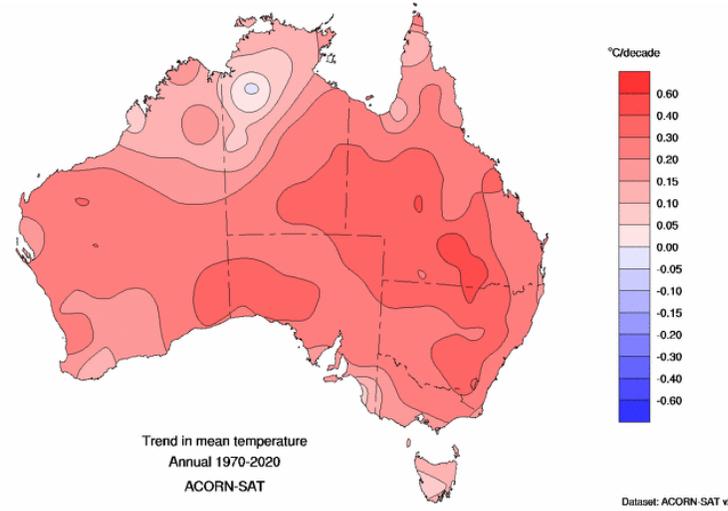
Pat McCafferty

Managing Director
of Yarra Valley Water

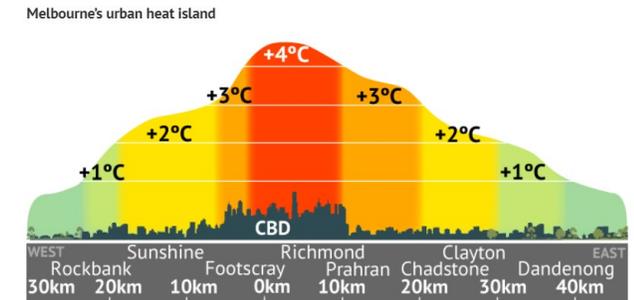




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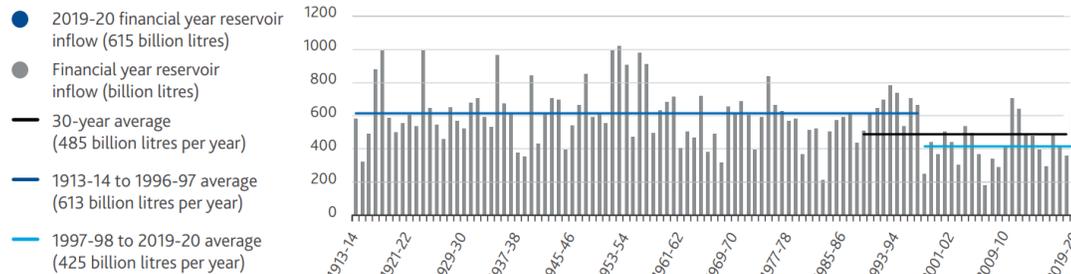


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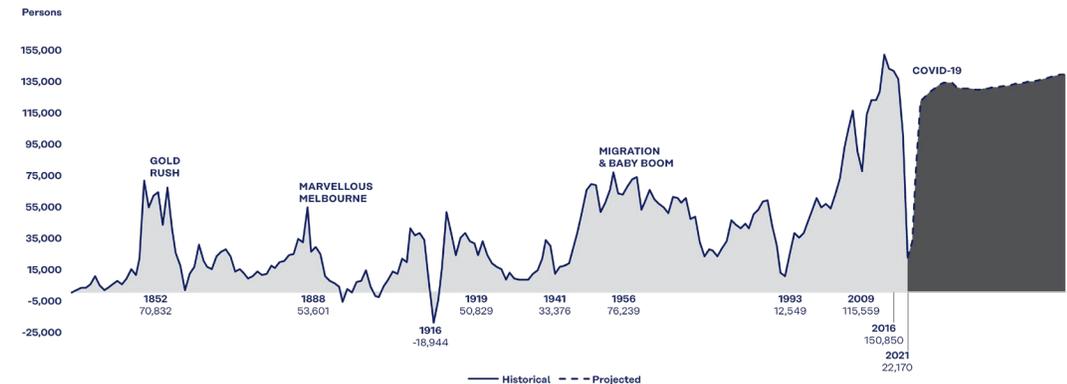


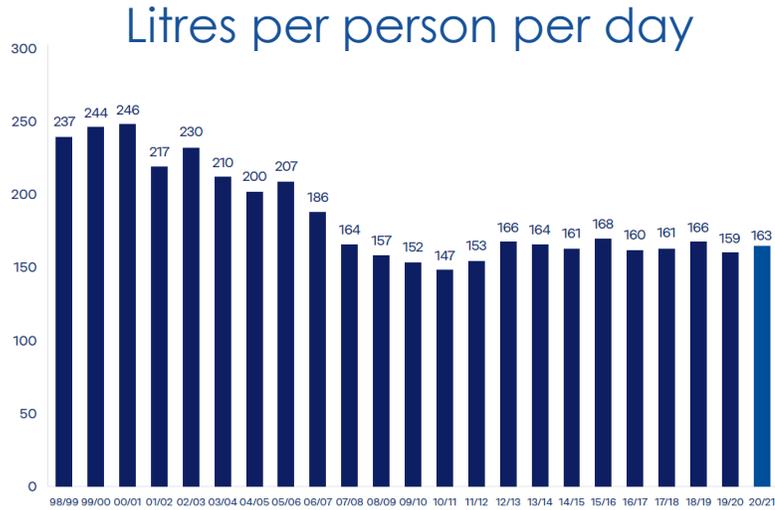
Source: Adapted from Victorian government / Planmelbourne, 2017

Long-Term inflow to Melbourne's major harvesting storages (Thomson, Upper Yarra, Maroondah and O'Shannassy reservoirs)



Victoria – Population Growth From 1836





MAKE EVERY DROP COUNT

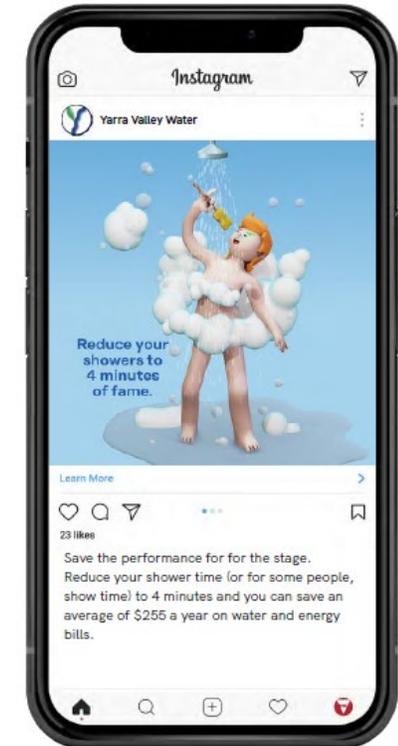


Isaac, 6, Asher, 5, and Zoe, 9 with water watcher devices. Picture: REBECCA MICHAEL

WATER GREAT WAY TO SAVE

SPLISH SPLASH, these critters are coming to the rescue to save a swash of water wasted by unsuspecting school students. The eye-popping rubber characters, named Welly, Washy, Wavy and Wade, sit on the faucet to remind children to turn off the tap.

Yarra Valley Water expects the little crusaders, teamed with a digital miniseries, will help children save 14 litres of water every day. More than 400 schools across the Yarra Valley are eligible for the Water Watchers primary school education program.





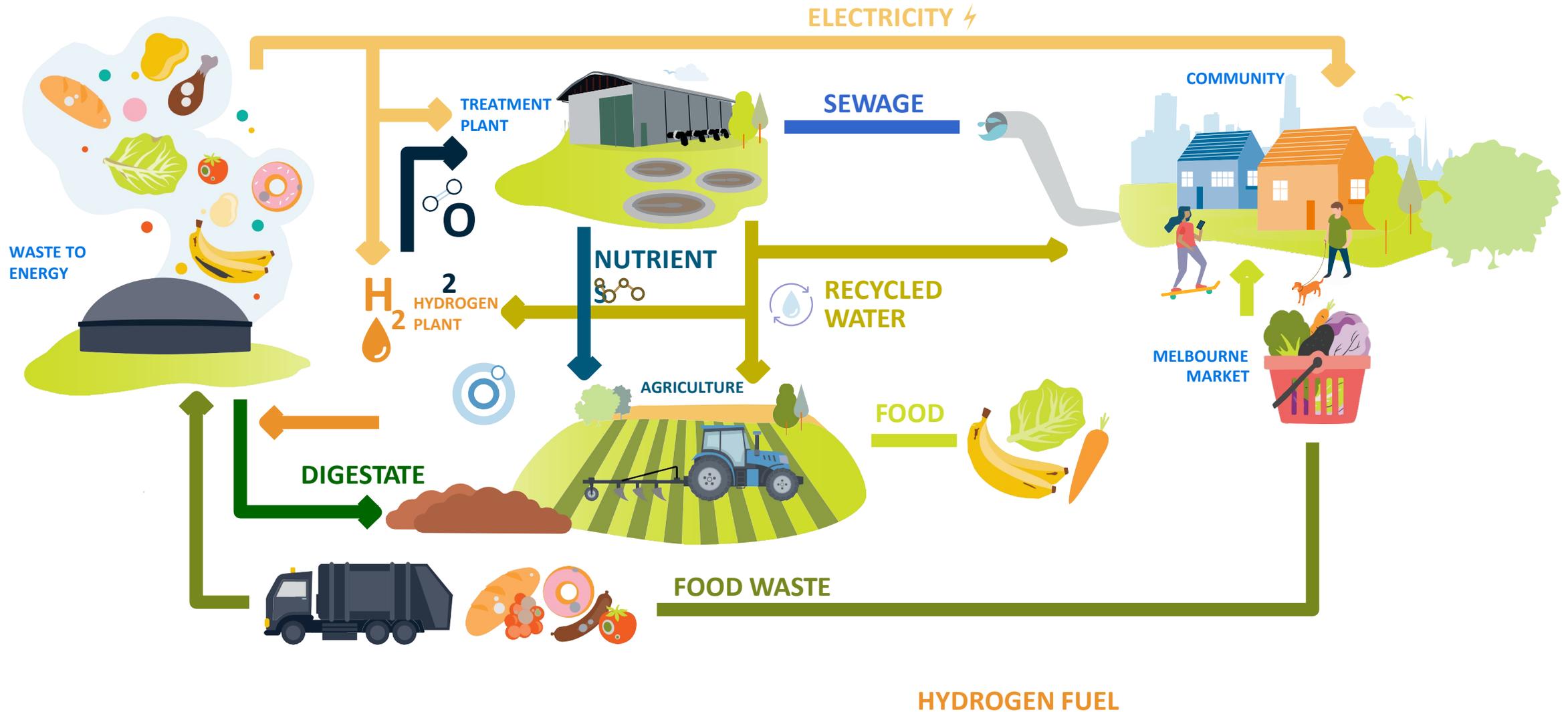
Infill Recycled Water
Doncaster Hill
- 5000 properties

Greenfield Recycled Water
Northern Corridor
- 100,000 properties





Green Hydrogen and circular economy





Metropolitan Water Services in Victoria

Charlie Littlefair

General Manager
Liveable Water Solutions
at South-East Water

Where we are



Who we are



We deliver

water, sewerage and recycled water services

1.91

million people

3,640

service area

square kilometre

365

pump stations

26,600

Kilometres of pipeline



\$4.8 billion assets

8



water recycling plants

- Population growth/Urban Intensification
- Water Security & Resilience
- Climate Mitigation/Adaption
- Customer Affordability & Hardship
- Changing Customer Expectations
- Incorporating Traditional Owner Values
- Inclusion & Diversity
- Digital Transformation
- Ageing Infrastructure
- Social Procurement

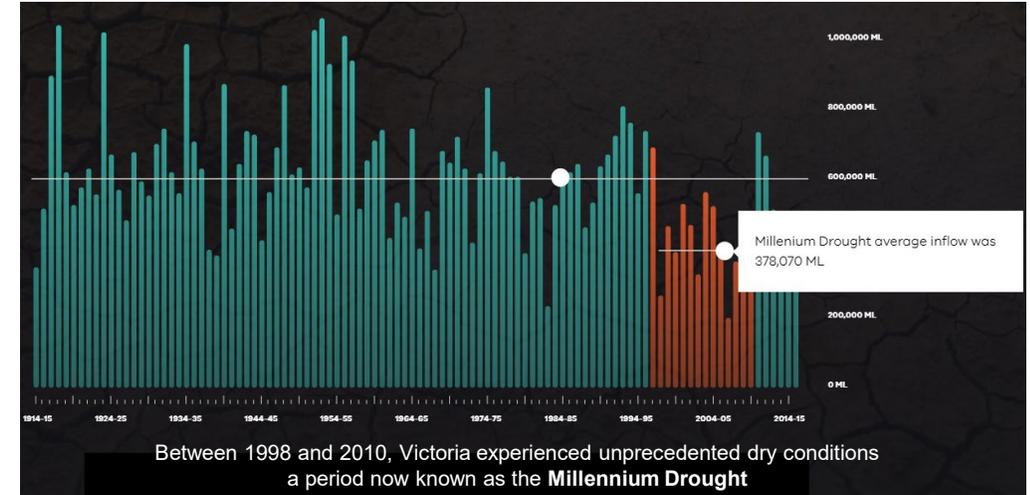
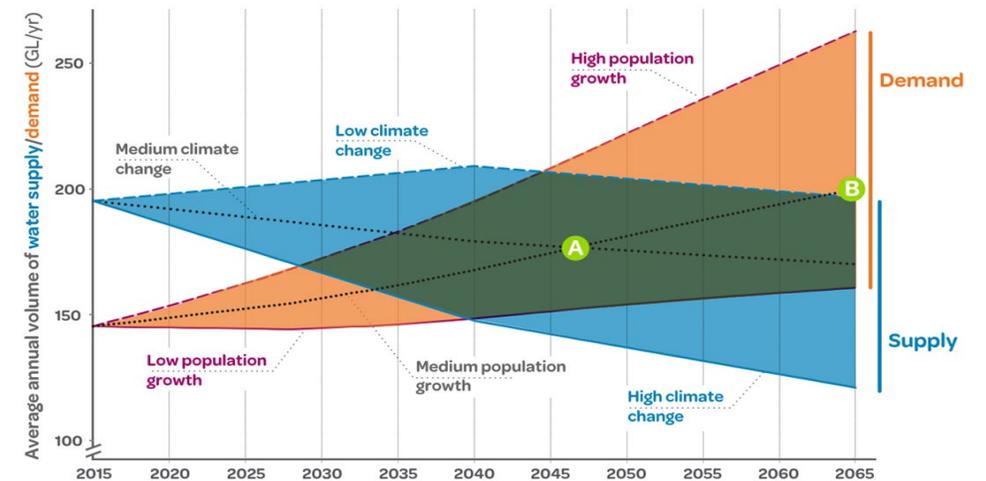


Figure 2: South East Water's water supply and demand balance to 2065



A = Under medium climate change and medium population growth scenarios, we will have enough water until 2047

B = Forecast water demand by 2065 is 200 GL

Fishermans Bend





Fishermans Bend

2.5^x size
Melbourne CBD

80,000
residents

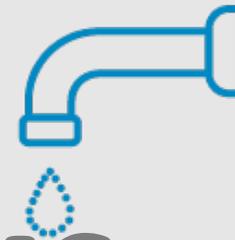
80,000
jobs

Building
a water sensitive city

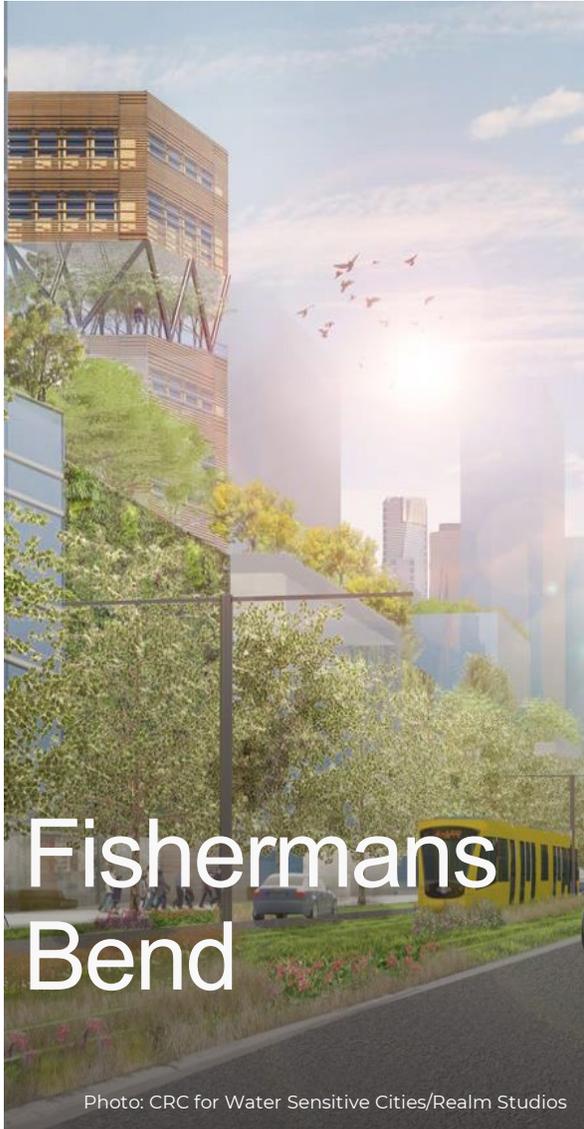


Green star
communities rating

Water
pivotal to design



Opportunity
spanning
generations



“A thriving place that is a leading example for environmental sustainability, liveability, connectivity, diversity and innovation”

The Task Force

What does this mean for South East Water?

- An opportunity to change how we provide services to our customers.

Our Plan for Fishermans Bend:

- Be leaders in supporting Green Star Communities.
- Provide secure, efficient and fit for purpose water services to Fishermans Bend.



Water targets for Fishermans Bend



45 per cent reduction in drinking water demand



50 per cent reduction in treated wastewater discharge

a more climate resilient community with **reduced flooding** of roads and community

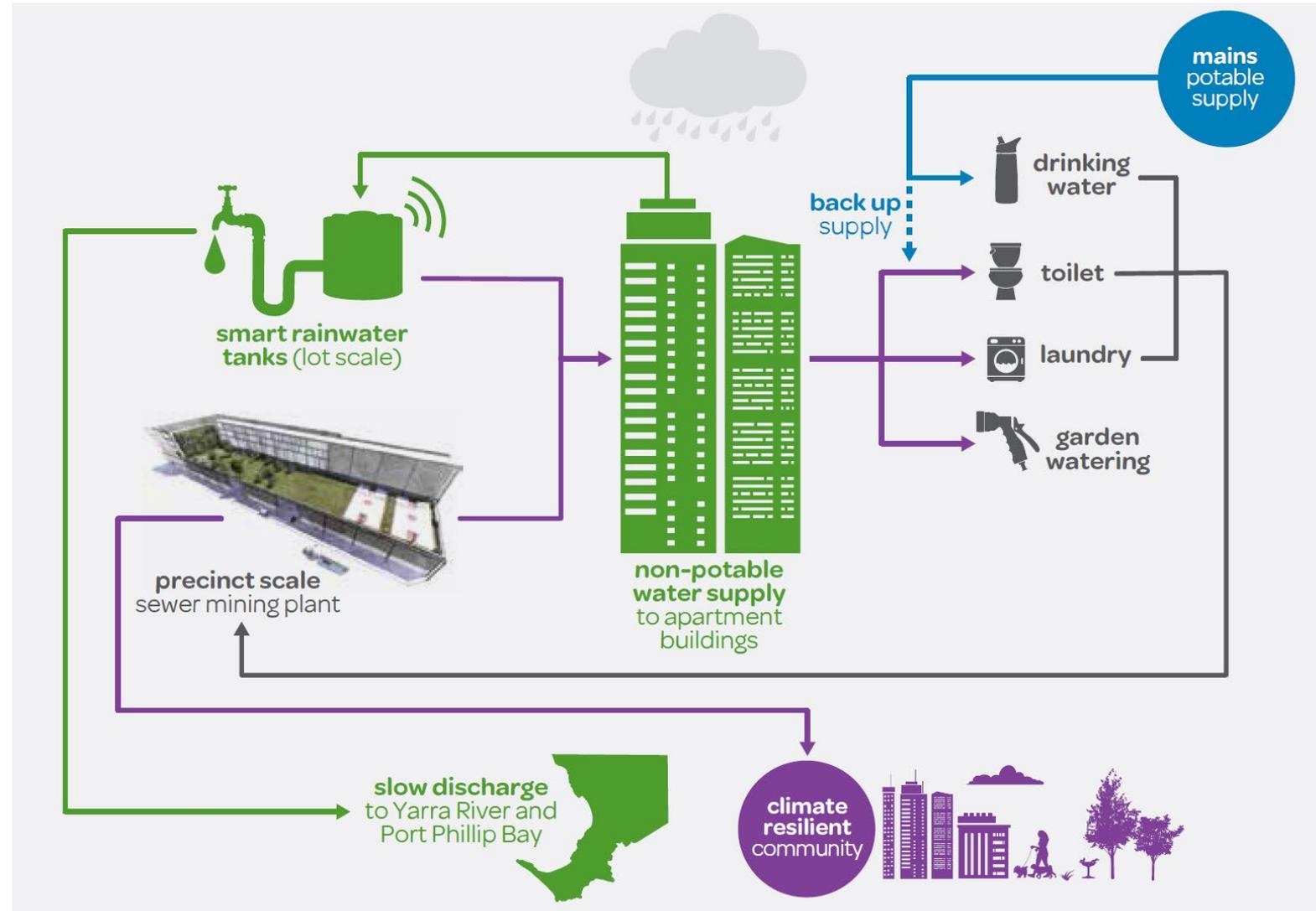


a **drought proof** recycled water supply to support a green, cool landscape

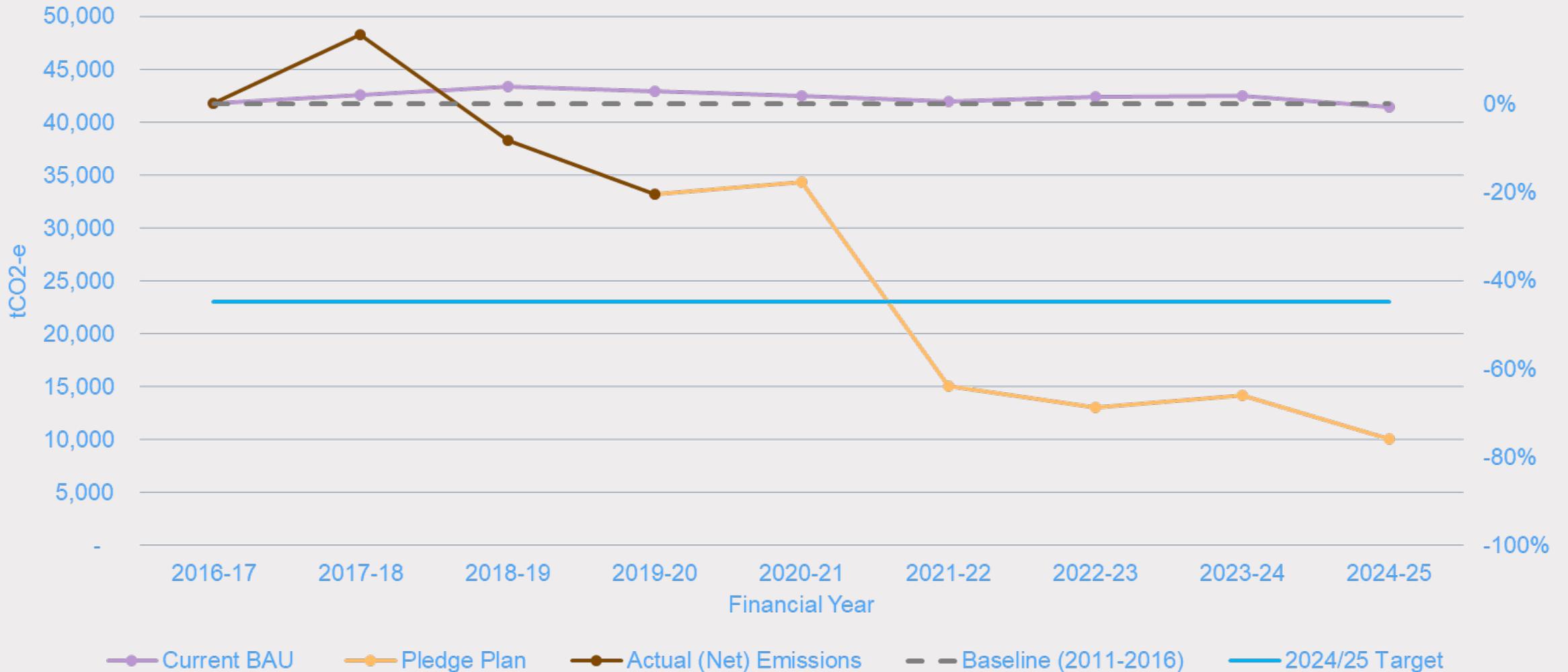


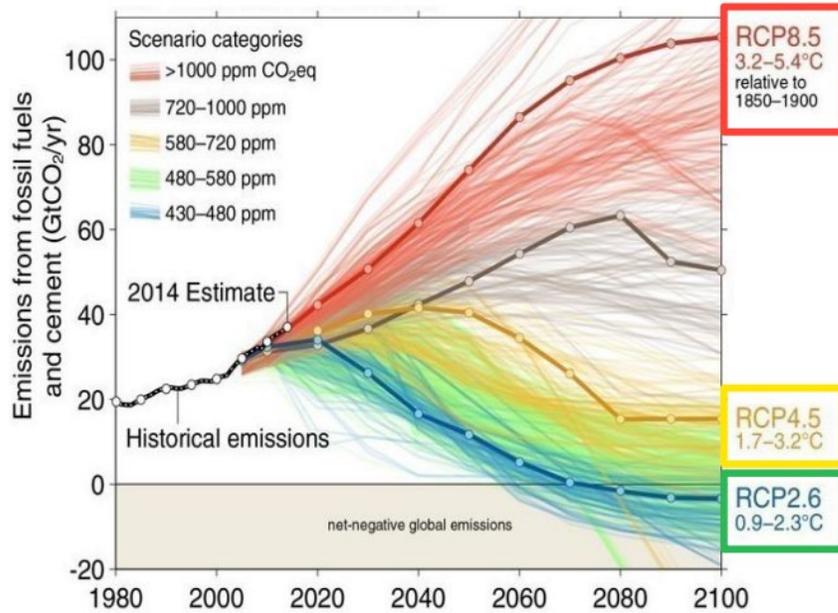
An integrated water system which:

- Captures rainwater
- Reduces flooding
- Treats the city's sewage
- Recycles Class A water to replace non-drinking water uses
- Reduced potable demand
- A more climate resilient community



Emission Reduction Pledge Forecast





Suggested scenarios	Risk type tested	Timeframes
High Emissions Scenario (RCP 8.5) – emissions continue to rise at current rates (c. 4°C + warming)	Physical impacts	Across all scenarios, assets should consider the impacts at the following timeframes: <ul style="list-style-type: none"> • 2030 • 2050 • 2090
Moderate Emissions Scenario (RCP 4.5) – emissions stabilise at half of today's emission by 2080 (2°C warming)	Transition and physical impacts	
Low Emissions Scenario (RCP 2.6) – emissions halved by 2050 (1.5°C warming), achieving net negative emissions from 2070	Transition impacts	

Each of the three scenarios were selected based on one of the International Panel on Climate Change's "Representative Concentration Pathways" (RCPs) – projections of future emissions.

South East Water

of Risks: 179

South East Water Climate Adapt Risk Validation

Business Section: All

Risk / opportunity: All

Physical or Transition: All

Likelihood: All

Consequence: All

Year: All

Climate hazard: All

Risk ID: All

Scenario: All

Threat	2030	2050	2090	Total
Extreme	6	9	10	13
High	21	26	18	35
Medium	34	44	24	55
Low	124	113	51	124
Total	179	176	93	179

Risk Matrix

Scenario: RCP2.6 (green), RCP4.5 (yellow), RCP8.5 (red)



Jeff Rigby

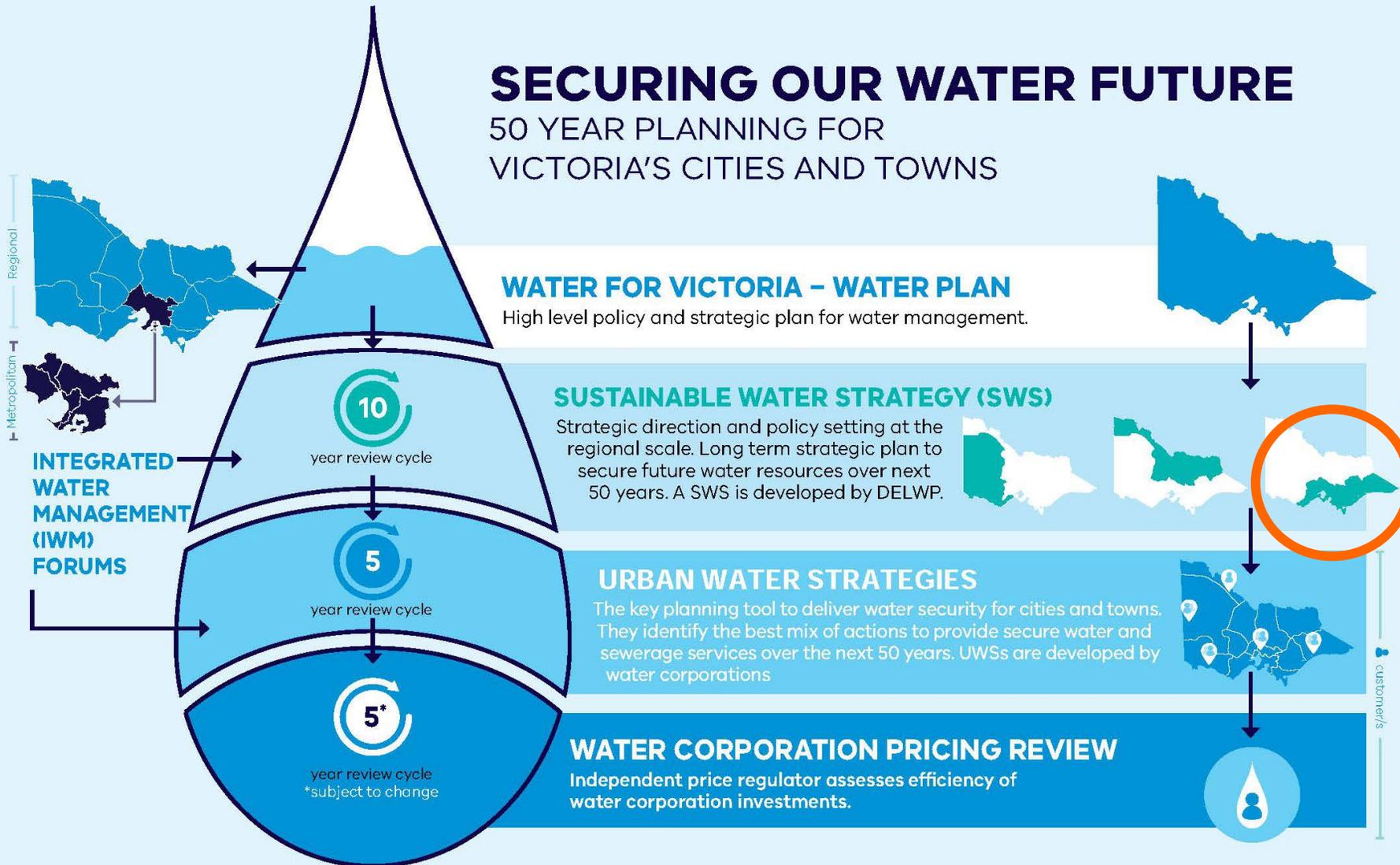
Chief Executive Adviser
at Greater Western Water

Metropolitan Water Services in Victoria

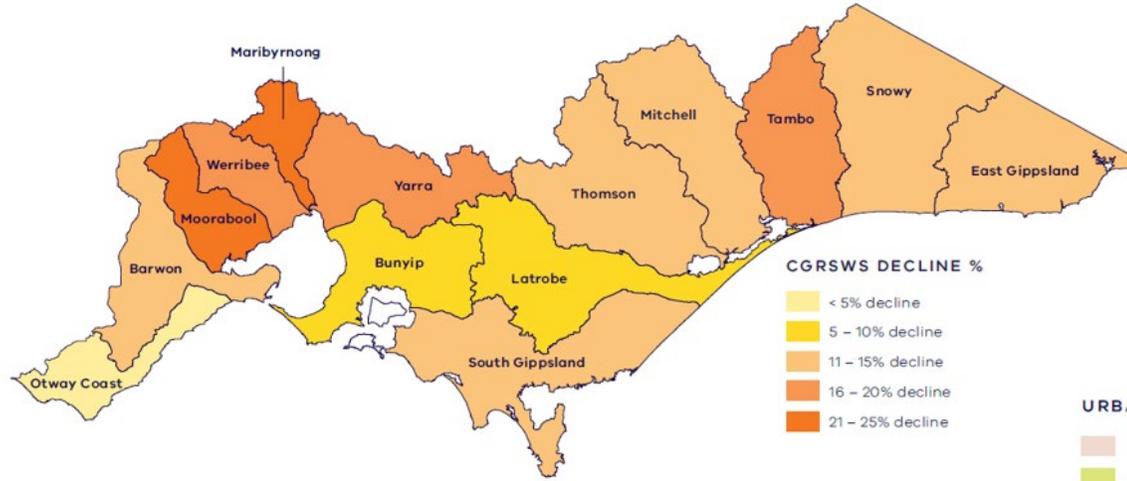
**Collaborative Water Resource
Planning for Greater Melbourne**

Greater Melbourne

- Water planning for Victoria water utility sector is set down and prescribed in legislation
 - *Water Act 1989 (Vic)*
 - *Statement of Obligations (General)* issued under *Water Industry Act 1994 (Vic)*
- Water planning processes created through water industry reforms in 2004 by the Bracks Labour Government
 - *Securing Our Water Future Together*, Victorian Government White Paper
- Policy direction reset in 2016 by Andrews Labour Government that built on earlier reforms
 - *Water for Victoria Water Plan*

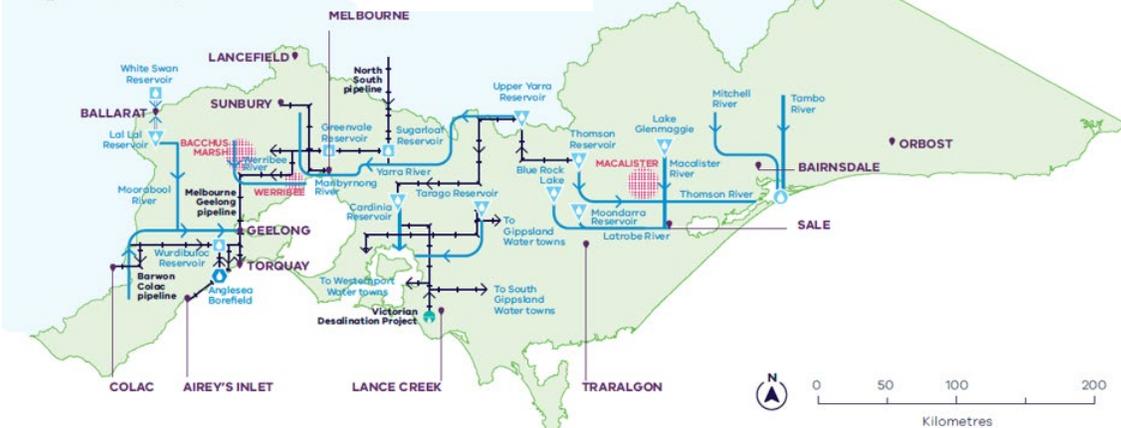


Central & Gippsland Region Sustainable Water Strategy



CENTRAL GIPPSLAND REGION WATER AVAILABILITY

- Rivers
- Channel
- Existing piped connection
- Catchment storage
- Operational storage
- Groundwater extraction location
- Desalination plant
- Major Towns
- Irrigation district

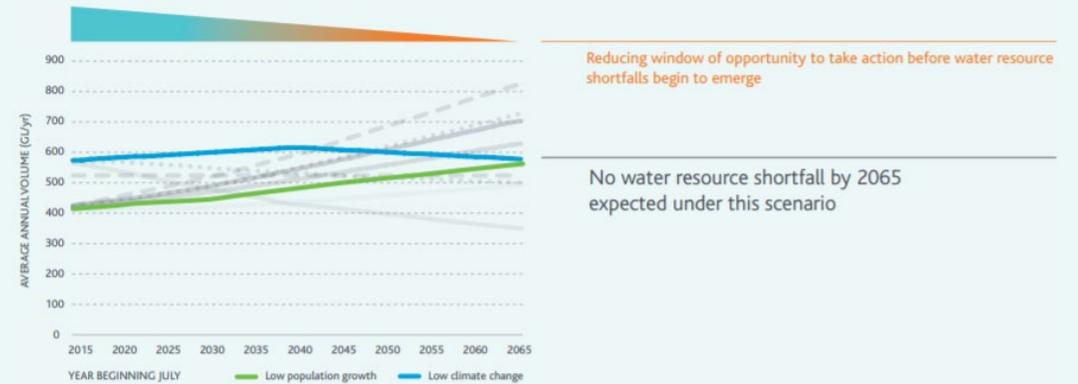


URBAN WATER STRATEGIES

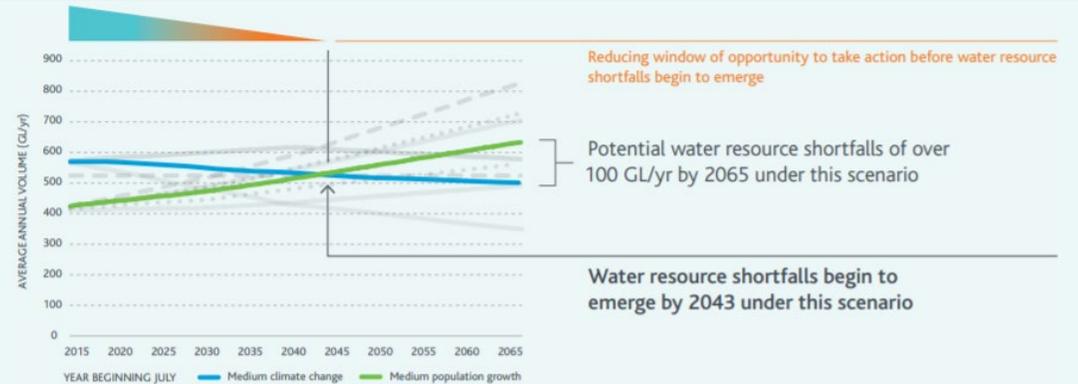
- Wannon Water
- Central Highlands Water
- Barwon Water
- Greater Melbourne Urban Water System Strategy - Greater Western Water, Melbourne Water, Yarra Valley Water, South East Water
- Western Port Water
- South Gippsland Water
- Gippsland Water
- East Gippsland Water



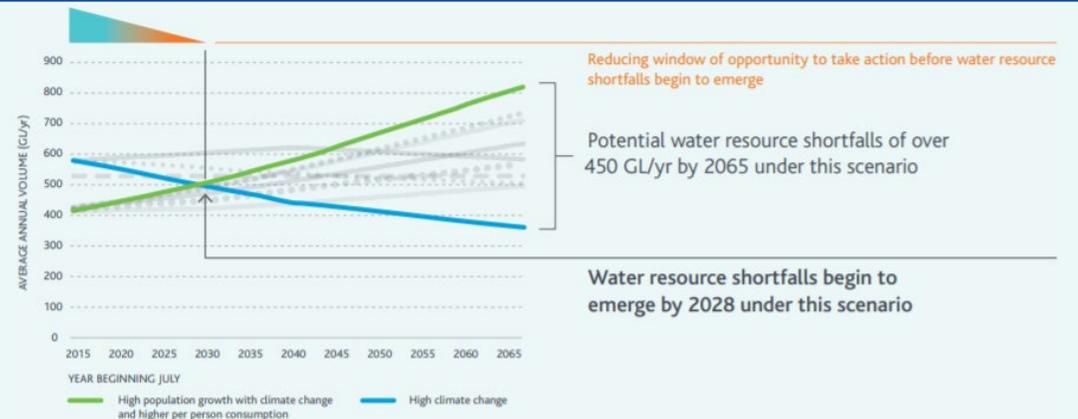
1. Low Change Scenario



2. Incremental Change Scenario



3. Rapid Change Scenario



Water for life

PREPARING NOW,
READY FOR OUR FUTURE

Water Conservation & Efficiency

Residential and non-residential demand including:

- Appliances, fixtures, fittings, showerheads, toilets, leaks, washing machines
- Behaviour change campaigns
- Smart irrigation of open space
- Digital metering
- Smart water mark
- Other incentives programs

- GMUWSS Water Efficiency Working Group
- Demand Working Group
- DELWP Water Efficiency Team
- Digital Metering Steering Group

IWM & Alternative Source Supply

Regional Scale

- Feasibility of Large-Scale Recycled Water Distribution Networks (may include stormwater harvesting)

Catchment Scale IWM

- Additional place-based options to achieve endorsed targets
- Local scale
- Street trees and greenspace
- Rainwater tanks
- Local stormwater harvesting

- GMUWSS Alternative Water Working Group
- Catchment Scale IWM Forums
- DELWP IWM Team
- Catchment Expert Working Groups

Supply System Augmentation

Manufactured Water

- Desalination
- Purified Recycled Water (*requires Victorian Government consideration and support*)

River Dependent Sources

(only current sources due to stressed state of river systems & declining water availability)

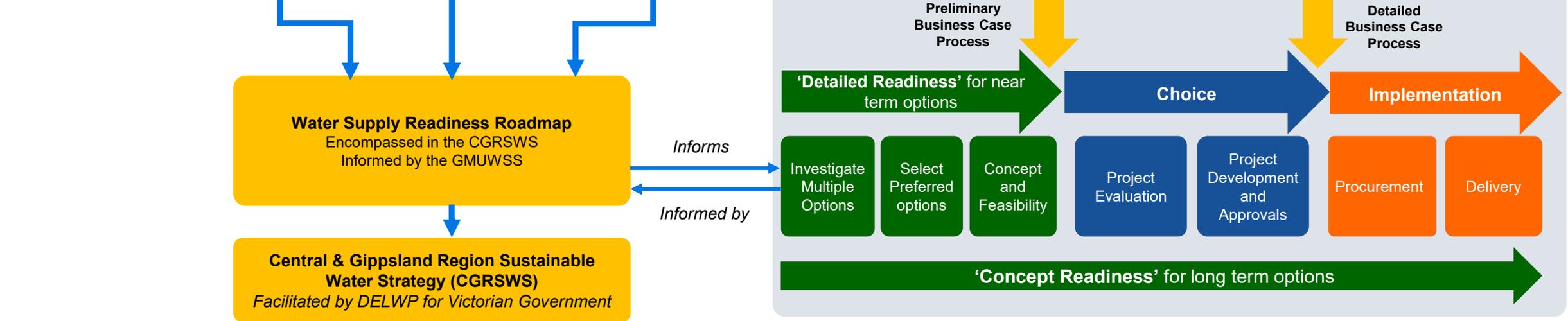
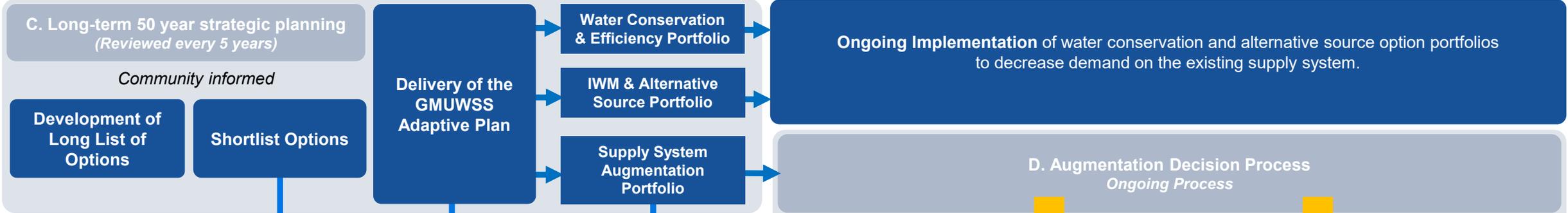
Groundwater

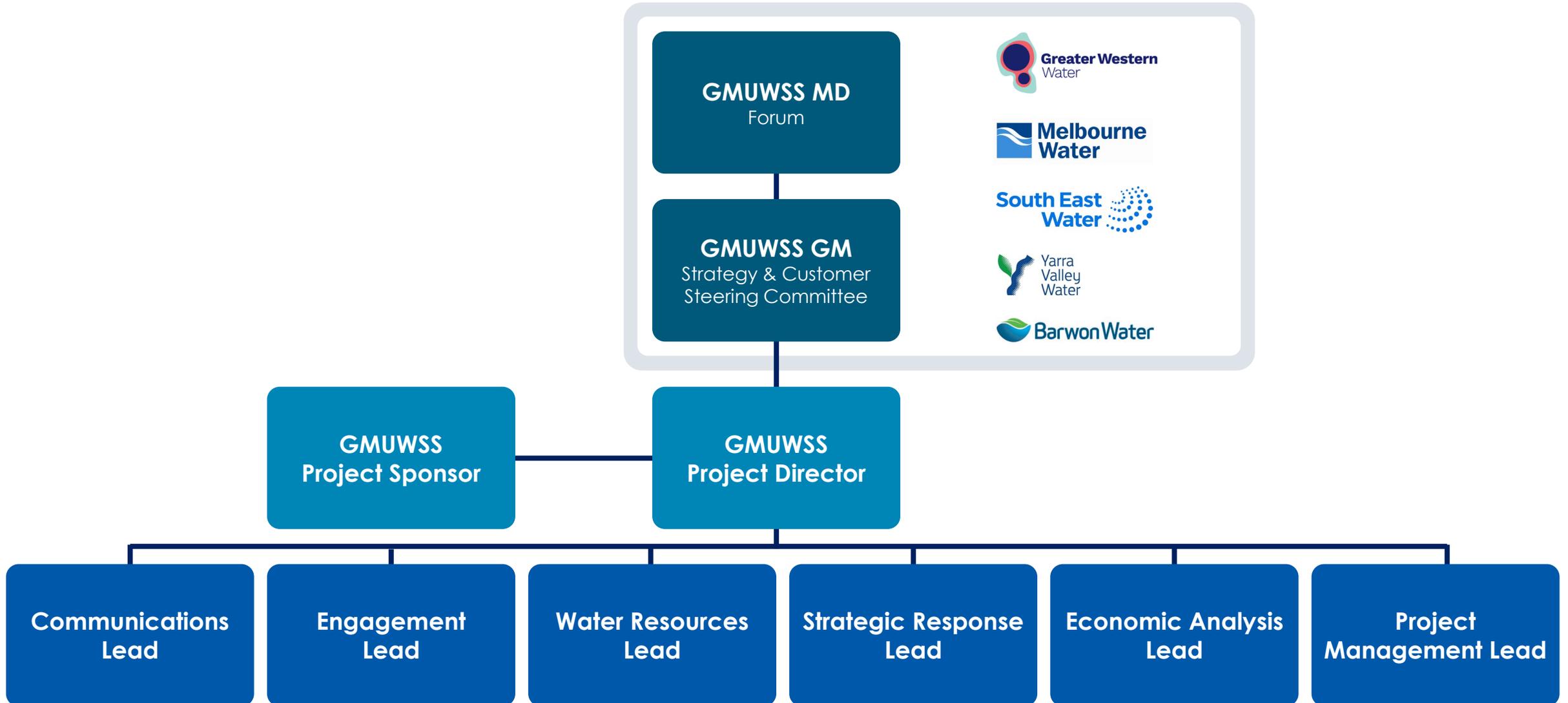
Other

- GMUWSS Industry Challenge Team
- DELWP Victorian Desalination Project Team
- DELWP Grid Augmentation Team
- Melbourne Water/GHD PRW Investigation
- Barwon Water corporation
- Regional Water Businesses

A. Short-term planning, Operational Existing System Preparedness
Ongoing Process

B. Contingency/Emergency Only = Drought Response
Ongoing Process





- Water resource and systems planning in Victoria is quite mature
- Clear delineation between State, regional and utility level planning responsibilities, which is underpinned by a strong collaboration to ensure alignment and harmonisation of strategic direction and actions
- Exceptional collaborative and partnering approach both intra-sector and with portfolio lead agency provides seamless planning arrangements
- Large-scale metropolitan and regional public water utilities have capability and depth of resources for effective water planning both internally and in multi-participant project delivery team settings (such as Water for Life)
- Broad and deep community and water customer involvement in early strategic thinking and plan formulation with feedback opportunities on draft strategy propositions

AUSTRALIAN WATER REFORM ROADSHOW



THANK YOU FOR JOINING US TODAY



Recording & Slide Pack will be available soon:

<https://www.spicae.com.au/about-spicae/nz-roadshow/>