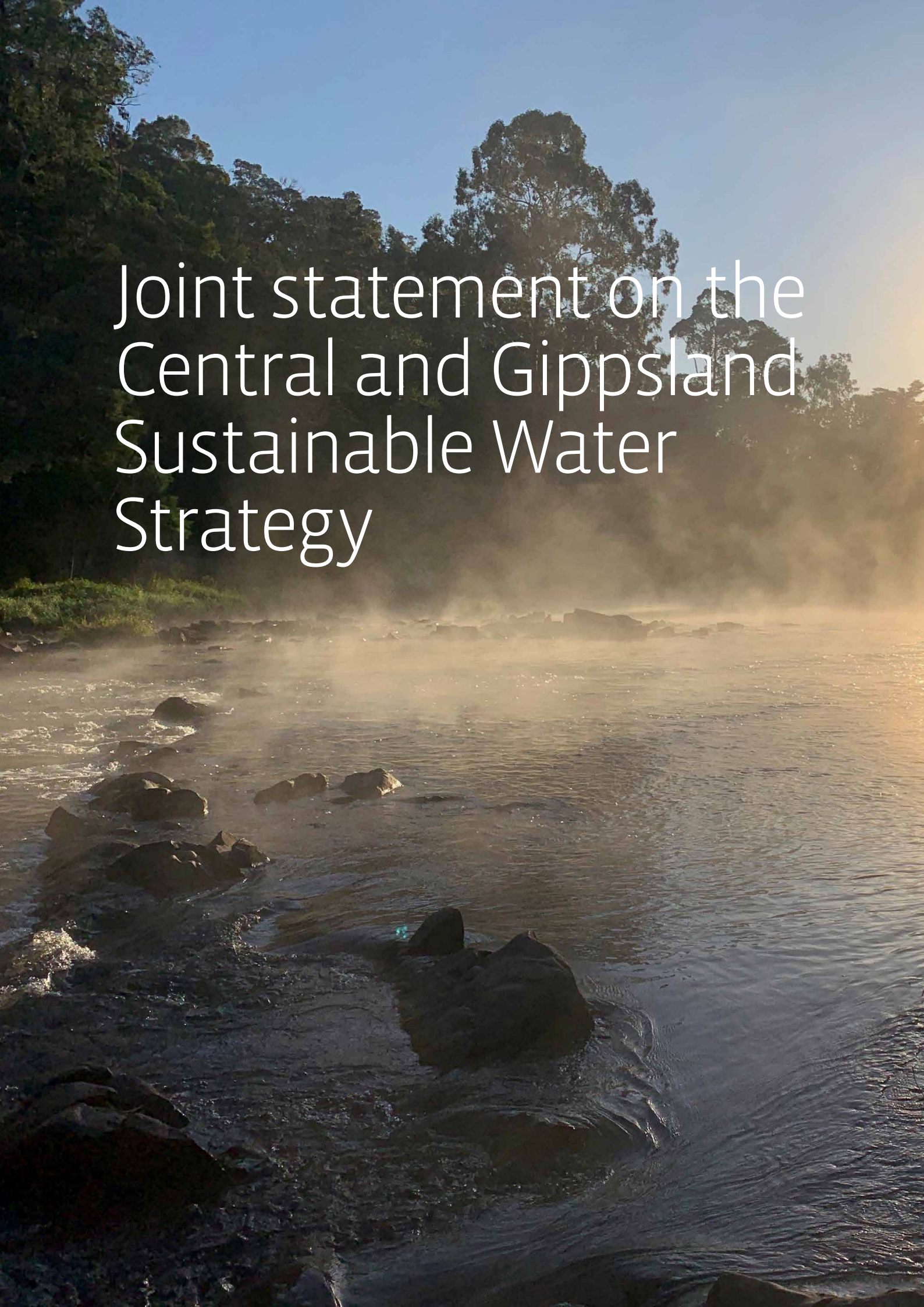


Joint statement on the Central and Gippsland Sustainable Water Strategy

We are a collective of individuals and community groups joined by our shared deep concern over the inaction and mismanagement of water in Victoria in the face of the deterioration of our rivers, waterways and wetlands. We come from many different catchments and yet we see the same tragedies unfolding: rivers depleted by over-extraction; wetlands on the brink of collapse due to insufficient flows; groundwater dependent ecosystems drying and dying; and contaminants leaching into our waterways.

We come together now to raise a united voice for the rivers and waterways of the Central and Gippsland regions, a voice that is currently being ignored in the State Government's development of the next 10-year Sustainable Water Strategy (SWS).

The fundamental purpose of the SWS is to guarantee sustainability in water management. It is the policy foundation which should ensure we, as a community, are not compromising our water ecosystems for future generations. The SWS should identify threats to water and drive changes towards genuinely sustainable water management for both the community and the environment. It should respond effectively and honestly to deterioration in waterway health or water availability. The previous SWS period saw deterioration in river ecosystem health and no substantial departure overall from the extractive practices that endanger our waterways. The Long Term Water Resource Assessment for Southern Victoria, released in 2020 and intended to inform the next SWS, found that 'water availability for the environment has declined in all basins' within the Central and Gippsland regions.[1]

Yet the new SWS is being prepared with manifestly inadequate attempts to engage and integrate the voice of community environmental organisations. The knowledge and perspective of environmental advocacy groups is essential to inform the urgent policy shifts needed to restore our waterways. The SWS is an opportunity to respond to the water crisis with ambition and foresight, to articulate honestly the emergency we face and to bring water policy in line with a resilient water future. Marginalising the views of community organisations runs counter to the central intention of the SWS and squanders that opportunity. We assert that these organisations must be genuinely engaged in the development of the SWS so that it can be the powerful tool for environmental protection that it is intended to be.

Below is a statement of our collective position on a number of critical aspects of water policy. These views must underpin the Central and Gippsland SWS if it is to provide direction for genuinely sustainable water management practices.

1 2020 Long Term Water Resource Assessment for Southern Victoria, 20.

We acknowledge the Traditional Custodians of the rivers and waterways in this statement. We pay respect to their elders, past, present and emerging, and pay tribute to the vital role First Nations peoples play in caring for country across Victoria and the nation.

Tambo River at the Glen Flora Reserve. Photo: Louise Crisp

The crisis our waterways are facing

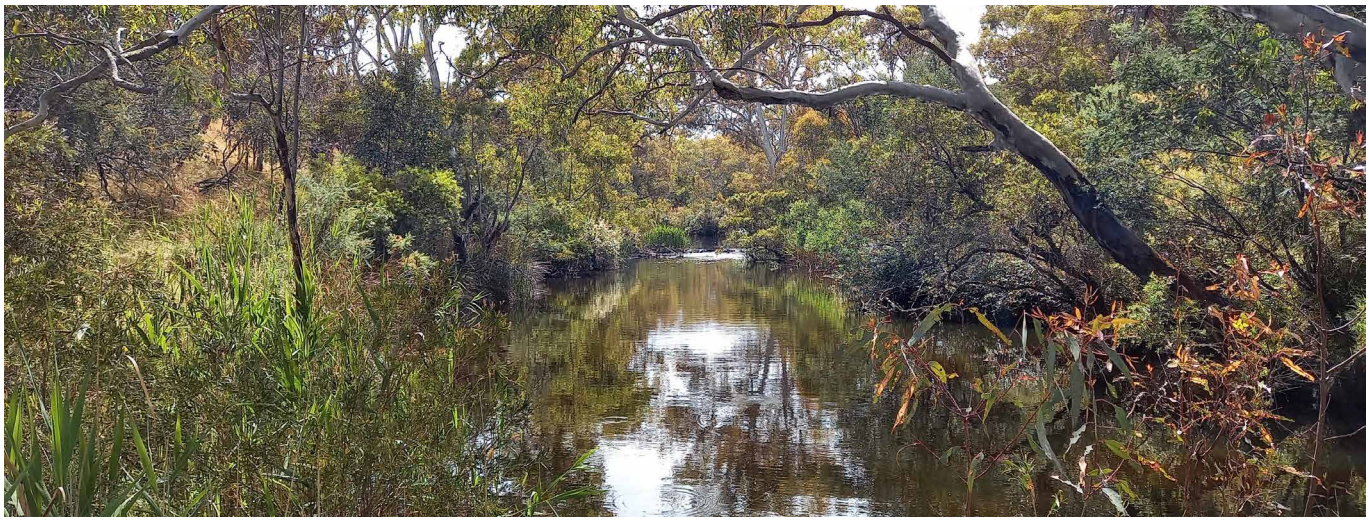
1. We are facing a water crisis in Victoria. The decade ahead will see intensifying threats to the availability and quality of water to meet human and environmental needs. Pressure is rising from a collision of cumulative factors which need to be adequately addressed: population growth, climate change and decades of water management practices viewing water as an endlessly extractable resource for human use.
2. Population growth across the Central and Gippsland regions is driving the demand for greater consumptive water supplies as well as stimulating expansion of mining, irrigation or other extractive industries in catchments. Climate change is leading to drier landscapes and waterways. We see this in significantly altered annual distribution and intensities of rainfall as well as reductions in soil moisture, surface water flows and aquifer recharge. By 2040 the rivers of the Central and Gippsland regions are predicted to see decreases in run off of up to 33% under medium to high climate change scenarios.[2] Preferential allocations of water for human uses have left waterway ecosystems impoverished. The full impact on human and ecosystem health of contamination of water sources by industry, mining, agriculture and waste mismanagement is poorly monitored or understood. Land clearing and bushfires in the catchment are further contributors to declining water quality and yields.
3. Fundamental structures in water governance have established an untenable contradiction: water authorities are encouraged to treat water as a commercial resource while also protecting environmental requirements. This has driven commodification of a common asset, instead of treating water as a public resource to be managed for the public good, and undermines implementation of ecologically sustainable water management practices.
4. The result of these pressures is decreasing availability and quality of water for human and ecological requirements. Our rivers, streams and wetlands are highly stressed and the ecosystems they support are in various stages of degradation. At worst, some of the waterways in the Central and Gippsland region are on a trajectory towards ecosystem collapse, manifested as a loss of the defining characteristics of the ecosystem, substantial loss of biodiversity and a potentially irreversible shift towards a novel and depleted state.

The Gippsland Lakes are facing progressive, long-term ecosystem collapse, evidenced by declining biological diversity and ecosystem complexity, including the retreat and decline of submerged angiosperms, extensive loss of fringing Melaleuca ericifolia and phragmites and significant shifts in fish habitat. This irreversible change to the ecological character of the Lakes and fringing wetlands is in large part due to salinisation (permanent marine influence) and reduction in freshwater inflows.[3]

2 Guidelines on Assessing the Impact of Climate Change on Water Availability in Victoria, 2016 DELWP, 18.

3 Boon, 'The Gippsland Lakes: Management Challenges Posed by Long-Term Environmental Change' (2016) 67.6 *Marine and Freshwater Research* 721-737.

Die back around Lake Coleman, Gippsland Lakes. Photo: Damien Cook



Moorabool River near Meredith. Photo: Cameron Steele

Strategies to move from crisis to sustainable water management

5. **Leadership in Crisis**: We need the CGSWS to face this crisis with honesty, leadership, transparency and innovation. Continuing with 'business as usual' and depending on the same extractive and polluting water management practices will only deepen the crisis and environmental devastation. Water policy needs to make a dramatic and determined shift to truly sustainable practices. We support strong leadership to genuinely engage the community and bring them on board with the urgent changes that will need to be made in water policy.
6. **Ecological Limits**: Water policy must recognise the fundamental ecological limits on water extraction and that in many catchments we have exceeded those limits for decades (see inset box). Water management must be truly premised on the application of ecologically sustainable development principles: the precautionary principle; conservation of biodiversity and ecological integrity; and intergenerational equity.

It is estimated that the Barwon Basin has lost 29.5GL/year and the Moorabool Basin 14.9GL/year in surface water availability since 2006.[4] Therefore environmental flows need to increase by a corresponding amount, just to reach the level they were at in 2006, which was already over extracted. The FLOWS study estimated that in full the Barwon River needs 44GL/year and the Moorabool 19.6 GL/year to return to baseline ecological health.[5]

There must be compulsory environmental flow regimes consistent with maintaining or restoring ecological health and conserving biodiversity in our waterways and wetlands. Flow stressed rivers need an urgent increase in environmental flows and base flow protection. Rivers that are not yet flow stressed need to be protected from increased diversions or extractions. Rights to water for waterways and wetlands must go well beyond the current EWR.

Waterways should be protected from the impacts of climate change with minimum flows set, instead of 'sharing' the burden of reduced availability of surface and ground water between consumptive and environmental uses.

7. **Allocations**: There should be a moratorium on any new allocations and no renewal of existing allocations without a full review of the flow stress status of the catchments in question. This is particularly important in the light of a drying climate and reduced yields. Bulk entitlements for closing mines in the Latrobe Valley should be returned to environmental flows and we support the position of the Latrobe Valley Regional Rehabilitation Strategy that water from the Latrobe River system should not be used for mine rehabilitation. The recent grant of $500,000 to Southern Rural Water for investigation of expansion of the Macalister Irrigation District is particularly troubling for the detriment it may cause rivers in that catchment. Southern Rural Water is also actively promoting the sale of 'sleeper' licenses.[6] These licenses should be resumed by the government and returned to environmental flows. That was an intention of the previous SWS but has not eventuated. Winter fill dam licenses should be cancelled or at least actively managed to minimise impacts on flow regimes. Intensification of use of licensing in these ways promotes unsustainable further over-extraction on already stressed waterways.

4 Department of Environment, Land, Water and Planning (2020) Long-Term Water Resource Assessment for Southern Victoria: Basin by Basin Results, 150 and 162.

5 Jacobs, *Moorabool River FLOWS Study Update* (2015), 88, and Alluvium, *Upper Barwon, Yarrowee and Leigh Rivers FLOWS Study Update* (2019) v.

6 Southern Rural Water 2021 Diversions Newsletters; SRW *Corporate Plan 2020-21*, 18, <http://www.srw.com.au/wp-content/uploads/2020/08/Corporate-Plan-2020-21.pdf>.

8. **Environmental Water Reserve**: The EWR system is not functioning to protect our rivers and waterways from ecological deterioration. The system needs to be overhauled. Only those rivers with dams get EWR allocations. Some allocations take years to eventuate (see inset box). Passing flows have been counted as environmental flows despite being extracted downstream. To have the intended effect, EWRs need to be adequate, guaranteed, and delivered in a pattern similar to natural flow regimes.

An example of the poor implementation of the EWR is the Upper Barwon River where a 2006 allocation of 1GL/year did not become available until 2018.[7] In the meantime sections of the Upper Barwon face ecosystem collapse as a result of groundwater extraction.[8]

9. **Ground Water**: Groundwater is not an infinite resource. Many groundwater-dependent waterway ecosystems (GDE) are highly threatened by the reduction, contamination and salinisation of groundwater. Extraction of groundwater must be reduced to protect these ecosystems and there must be real improvement of the monitoring and regulation of groundwater extraction. Aquifers need to be allowed to recharge and must be protected from pollutants. Consideration should be given to attaching meters to all stock and domestic bores. The impacts of offshore oil and gas extraction on onshore aquifers, leading to subsidence and lowered water tables, should be reduced. A possible mechanism for this is to charge market value for groundwater extracted offshore.

Groundwater-dependent ecosystems such as those of the Western Basaltic Plains waterways suffer greatly from the lack of monitoring and regulation of groundwater extraction.[9]

10. **Urban Stream Syndrome, Rooftop Harvesting and Storm Water Management**: Storm water regulation must be upgraded to avoid 'urban stream syndrome', specifically to reduce unnatural and destructive stream flows.[10] A greatly strengthened framework for integrated water management is needed.

The Warrnambool Roof Water Harvesting Initiative collects rainwater from industrial and subdivision properties. The project has found that the system harvests sufficient water to meet the annual water needs of the properties to which it is connected.[11]

Policy and structural investments should be made into extensive rooftop water harvesting for augmentation of water supply and reduction of urban runoff. Water Sensitive Urban Design, to a standard capable of achieving naturalised flow regimes, should be mandatory in new urban developments to aid stream protection, water harvesting and infiltration to soil moisture, and thereby aquifers.–

11. **Wastewater Treatment and Recycling:** We believe fully treated recycled waste water will need to be part of Victoria's future water supply. Victoria needs to develop the capacity, technology and regulatory framework to treat recycled water to an acceptable standard for re-use. We support extensive community education and engagement on the use of recycled water.

    Monitoring and regulation of discharges from wastewater treatment facilities needs to improve to reduce the spread of contaminants. Obviously great caution is required when using recycled water due to residual contaminants, such as PFAS, micro plastics, salts, endocrine disrupters, nutrients, antibiotics, fungicides, pesticides, heavy metals and pharmaceuticals, given the detrimental impact these could have on human and ecosystem health and the potential for land and aquifer pollution. Removal of these contaminants must occur before water is released for environmental flows, used on aquifer recharge or used for consumptive purposes. Use of bio solids and sewerage sludge should be used with caution.

12. **Desalinated water**: Desalinated water is already necessary to augment potable water supply in Victoria. This should now be used for base-load water supply, not only for drought insurance. This is a critical step in freeing up water for environmental flows. Specifically, there should be investigation into the establishment of a second desalination plant to serve Melbourne's west and the Barwon/Surf Coast.

7 See ‹https://www.vewh.vic.gov.au/news-and-publications/news/new-upper-barwon-environmental-entitlement-application-in-progress›.

8 See eg Neal 'Barwon Water ordered to fix Otways Water Acidification due to Pumping of Key Groundwater Aquifer' *ABC News*, 18 March 2019, https://www.abc.net.au/news/2019-03-18/wetlands-become-wasteland-of-acidic-soil-after-aquifer-pumped/10778686 ›.

9 See, eg. Dresel et al., *Mapping Terrestrial Groundwater Dependent Ecosystems: Method Development and Example Output* (2010) 9.

10 C. Walsh et al, 'The urban stream syndrome: current knowledge and the search for a cure', *Journal of the North American Benthological Society* 24(3):706-723, September 2005.

11 Warrnambool Roof Water Harvesting Initiative ‹https://www.wannonwater.com.au/news-projects/projects/warrnambool-roof-water-harvesting-initiative.aspx›.

13. **Contaminants**: Contamination is a major concern for many of the waterways in the Central and Gippsland region, from both legacy contamination and ongoing discharge from industry, agriculture, mining, wastewater treatment, coal ash, landfill leachate and acid sulphate discharge from swamps.[12] Contamination of soils through polluted groundwater or salinisation due to over-irrigation is another critical factor which must be addressed. Pollutant discharge should be much more tightly monitored and regulated. Applications for approval of activities which will impact water quality should be viewed in the context of the cumulative impact, particularly mining.

14. **Diversions**: Diversions of streams and rivers should be minimised. Artificial cross-connection of catchments is unsustainable as it essentially raids healthy rivers to supplement flow-stressed catchments. Combining the Central and Gippsland regions implies the intended further use of Gippsland water to support the consumptive water demands of the Central region. We are concerned about the impact this will have on Gippsland's waterways and the Gippsland Lakes. Likewise, farm dams are having a huge impact on river health and need to be regulated.

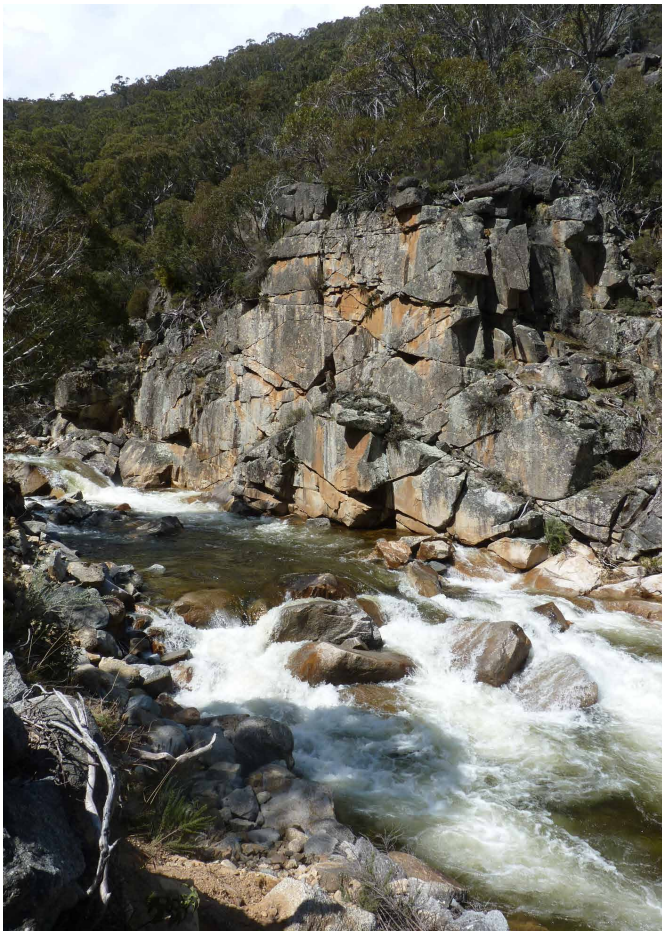
15. **Education and efficiency**: Both technological and behavioural efficiencies in water use need to be maximised in residential, industrial and agricultural settings. Pricing models can be used to incentivise efficiency and to mandate sources of water other than rivers and aquifers. Current urban daily water consumption is approximately 165Lt/person, but a determined community education campaign could reduce that figure.

Between 1981 and 2006 Sydney's population grew by 950,000 but total water use remained stable due to the implementation of water-efficient technology and community education resulting in widespread behavioural changes.[13]

12 See, eg the impact of agricultural pharmaceuticals on the Gippsland Lakes in Fisher and Scott, 'Evaluating and Controlling Pharmaceutical Emissions from Dairy Farms: a critical first step in developing a preventative management approach' *Journal of Cleaner Production* 16(14) September 2008, 1437-1446.

13 2006 Sydney Metropolitan Water Plan, Executive Summary, Water for Life, 1.

The Gungarlin River, a major tributary of the upper Snowy River, was scheduled to receive environmental flows under the original intergovernmental agreements of 2002 and the Snowy Water Licence but has not received any. It flowed briefly in 2017-18 when a diversion failed. Photos: Louise Crisp



16. **Cultural Flows**: Bulk entitlements for cultural flows, in addition to environmental flows, must be provided in each catchment and traditional owners integrated into water management.
17. **Reforestation and riparian revegetation**: Deforestation of catchments is a fundamental cause of degradation of water availability and quality.[14] Industrial-scale logging in catchments must be ended immediately. Riparian restoration and catchment reforestation programs need to be adequately funded and supported by policy. All licensing arrangements along Crown waterways need to be converted to conservation and riparian management licenses in order to repair and improve waterway ecosystems.
18. **Data, Monitoring and Transparency**: There needs to be greater monitoring and transparency on all aspects of water use. We need comprehensive, up-to-date scientific data on which to base water management decisions. Increased monitoring of groundwater and surface water availability, quality and harvesting is required to better inform policy and allocations. Data on water availability, quality, allocations and flow rates must be made publicly available. Decisions which have significant impacts on water, such as mining approvals, need public input and scrutiny.

An example of a creative data collection strategy is the Platypus Census, utilising citizen science to detect platypus DNA in rivers as a proxy measurement of river condition.[15]

19. **SWS Process**: We are dissatisfied with the consultation process for the CGSWS to date. The process so far has been superficial, opaque and certainly hasn't encouraged participation or broad public dialogue. Integration of the views of community environmental organisations into the preparation of the SWS is essential to building a sustainable water future. Genuine consultation involves providing the community with the relevant facts, time to question scientists and decision makers, and opportunities to discuss policy. Community representation and participation in the preparation of the CGSWS needs to be guaranteed.

14 Lindenmayer and Taylor, 'Logging Must Stop in Melbourne's Biggest Water Supply Catchment', *The Conversation* (online) 16 November 2018 <https://theconversation.com/logging-must-stop-in-melbournes-biggest-water-supply-catchment-106922>.

15 See <https://watersource.awa.asn.au/environment/natural-environment/edna-water-sampling-bushfire-biodiversity/> and <https://www.melbournewater.com.au/water-data-and-education/get-involved/be-citizen-scientist/platypus-census>.

Pollution event at Spring Gully Reserve, Steele Creek. Photo: Helen van den Berg

Signatory Groups

Environmental Justice Australia
Bruce Lindsay – 03 8341 3100

Environmental Justice Australia is a not-for-profit public interest environmental legal practice. We act as advisers and legal representatives to the environment movement, pursuing court cases and law reform to protect our shared environment.

Yarra Riverkeeper
Andrew Kelly - 0408 850 810

The Yarra Riverkeeper is the community voice for the Yarra River and its catchment. The Association undertakes considered, evidence-based advocacy for the Yarra River, its riverine corridor and for the Yarra's tributaries.

Environment Victoria
Tyler Rotche - 0439 362 083

Environment Victoria is an independent charity, funded by donations. Established in 1969, we've grown into a community of 40 grassroots member groups and more than 180,000 individual supporters. Together we're campaigning to solve the climate crisis and build a thriving, sustainable society that protects and values nature.

People for a Living Moorabool
Cameron Steele – 0438 211 458

We are committed to restoring the full length of the Moorabool to a healthy living river. We are seeking an effective environmental flow of 20,000ML to be returned to the magnificent, but highly flow stressed, Moorabool River through the SWS process.

Werribee River Association
John Forrester – 0401 854 560

Werribee River Association works for human health across catchments, meeting the challenges of urbanisation and a changing climate. WRA urges greater care of land and aquatic habitat. WRA works with many partners, harnessing community pride in waterways, respecting waterways as living entities, calling for improved human access to waterways and their health-giving benefits. WRA has an excellent track record in biodiversity initiatives including platypus research, revegetation works, water quality testing, pollution mapping, litter research, and litter clean-ups. WRA hosts the Werribee Riverkeeper who acts as the voice of the waterways.

Friends of Latrobe Water Inc.
Tracey Anton - 0407 924 003

We protect and advocate for Latrobe Valley's water sources, connected waterways and Gippsland Lakes from brown coal activities including mining, mine rehabilitation activities and coal ash contamination, including utilising the legal system to facilitate that protection.

Friends of Steele Creek
Helen van den Berg - 0437 838 633

Steele Creek delivers highly polluted stormwater to the flow starved Maribyrnong River. We support large scale stormwater capture, treatment and reuse, increased groundwater infiltration and a guaranteed environmental flow for the Maribyrnong, to restore the health of our groundwater dependent waterways.

Gippsland Environment Group
Bumpy Favell – 0410 191 704

Gippsland Environment Group Inc. has been advocating for the protection and restoration of the Gippsland Lakes, its catchment rivers, and forest ecosystems for over 15 years. Current issues include the proposed Kalbar mineral sands mine near the Mitchell River, the Stockman copper and zinc mine on the Tambo River headwaters, Snowy River environmental flows, logging and inappropriate planned burns.

Friends of the Barwon Inc.
Dr Kaye Rodden – 0438 317 499

Our purpose is to protect and restore the health of the Barwon River and its tributaries, through building partnerships, empowering communities, engaging with governments, and providing strong and effective advocacy.

Friends of the Merri Creek
David Gifford – 0417 358 166

Friends of Merri Creek supports the Joint Statement, as a way of invigorating public debate about the health of all Victoria's waterways, including the need to halt and reverse the damage of urban stream syndrome on urban waterways, many of which are invaluable to the community for passive recreation and as vital sites of biodiversity.

Friends of the Earth, Melbourne
Anthony Amis - 0425 841 564

Friends of the Earth Melbourne is a not-for-profit organisation that believes that social and environmental issues cannot be separated from each other. As a result, FoE is a social and environmental justice organisation. FoE seeks to work toward a sustainable and equitable future, and to operate in a way that empowers individuals and communities.

Upper Deep Creek Landcare Group
Phil Severs – 0476 324 000

Deep Creek Landcare Group covers the Lancefield, Romsey and Monegeeta districts. For over 30 years our group has been active in improving the habitat and water quality in the upper regions of Deep Creek, a major tributary to the Maribyrnong River. We are particularly concerned with the lack of governance around the use of aquifers and the diversion of surface water in the catchment.

Friends of Lower Kororoit Creek Inc.
Geoffrey Mitchelmore OAM – 0411 274 718

Our vision for the Kororoit Creek is to protect and enhance the natural character of the creek for future generations to use and enjoy and to allow access for people and animals via a network of shared trails and native vegetation along the Creek.

Riddells Creek Landcare
Ross Colliver - 0411 226 519

Catchment flows are dropping in Jacksons and Riddells Creek and summer flow comes from the wastewater treatment plant. Yet Greater Western Water designs around an old model of distribution, consumption and treatment. We advocate for better water management for the health of these streams.

Friends of the Maribyrnong Valley
Maelor Himbury – 0432 406 862

Friends of the Maribyrnong Valley was formed in 1986 to preserve, protect and enhance the Maribyrnong River and its Valley Parklands. The group strongly believes that, as custodians, we must all work together to safeguard this irreplaceable community asset for future generations to enjoy.

Darebin Creek Management Committee Inc.
Dr Graeme Hamilton - 03 9499 4454

The peri-urban zone of Darebin Creek is being rapidly urbanised and the resulting changes to hydrology threaten the ecological values of the remnant endangered grassy woodland community, and downstream ecosystems. The lower reaches of the creek are affected by 'urban stream syndrome' and the development of new suburbs now threatens the entire catchment. The SWS strategy needs to ensure the adequacy of Water Sensitive Urban Design in new urban developments to maintain naturalised flow regimes and at the same time capture and utilise available local rainfall for domestic use and groundwater recharge.

Riverland Conservation Society of Heidelberg
Andrew Lees – 0402 240 590

Jacksons Creek EcoNetwork
Christina Cheers – 03 9744 1923

The Network involves 10 Landcare and Friends Groups along Jacksons and Riddells Creek. We are particularly concerned about plans to dump soil from the under-Yarra tunnel essentially on the banks of the Jacksons Creek, where any leakage could flow into the creek and down the Maribyrnong. The Maribyrnong is already contaminated with PFAS from the airport. Pollution control must be improved.

Kooyongkoot Alliance
Graham Ross - 0407 046 358

The KooyongKoot Alliance is the voice for Gardiners Creek (KooyongKoot), which is located in the eastern suburbs of Melbourne and crosses a number of council boundaries. An important urban water system, Gardiners Creek is the most degraded and polluted creek to the east of the Melbourne CBD. The Alliance advocates for a holistic approach to the management of the catchment and an independent authority to manage it.

Native Fish Australia (Vic)
Tim Curmi – 0417 419 765

Native Fish Australia is a volunteer organisation that advocates for the well-being of Australia's native freshwater fish and the rivers, streams and other waterways that they inhabit. NFA is founded by anglers who use and encourage ethical and sustainable angling practices. We work with government and others to help ensure that our aquatic heritage is well managed.

Gippsland Lakes Recreational Fishing Alliance
Robert Caune – 0428 548 455

The GLRFA represents the recreational fishing community in advocating for the rehabilitation of the Gippsland Lakes and Rivers.

Friends of Banyule
Michelle Giovas – 0409 179 121

Federation of Environment and Horticulture in the Macedon Ranges
Helen Radnedge – 0439 365 068

NatureWest Inc
Bruce Boddington

Moonee Valley Sustainability
Logan Shield - 0402 689 598

A community of people in Moonee Valley, Melbourne, who are interested in sustainability, environment and climate change issues.

Westgate Biodiversity: Bili Nursery & Landcare
Janet Bolitho - 0434 575 171

Westgate Biodiversity: Bili Nursery & Landcare strongly supports restoration of the ecological health in Victoria's waterways and aquifers. Decisions on extraction must be transparent, evidence-based and, at the very least, do no further harm to the environment. Our direct interest is Westgate Park's 1km long Yarra River boundary, close to the river mouth. WBBNL has done extensive work in recent years on the revegetation of the River bank at Westgate Park. While water quality has improved since the 1970s when industry waste was routinely dumped into the river it remains dependent on upstream practices, particularly sewage overflows and stormwater-borne pollution.

Friends of Bannockburn Bush
Stuart McCallum

Geelong Landcare Network
Peter Stray

Cover image: Yarra RIver at Warrandyte by Andrew Kelly
Back page image: Moorabool Falls by Cameron Steele

Latrobe River, Morwell. Photo: Tracey Anton