NORTHERN ALLIANCE FOR GREENHOUSE ACTION

Hon. Lisa Neville
Minister for Environment, Climate Change and Water
Department of Environment, Land, Water and Planning
Melbourne VIC 3001

25 March 2016

Dear Minister,

Re: Water for Victoria Discussion Paper

The Northern Alliance for Greenhouse Action (NAGA) welcomes this opportunity to comment on the Victorian Government's *Water for Victoria* discussion paper. NAGA formed in 2002 to share information, coordinate emission reduction activities and cooperate on research and the development of innovative projects. NAGA is comprised of Banyule, Darebin, Hume, Manningham, Melbourne, Moreland, Whittlesea, Yarra, Moreland Energy Foundation Limited and the Shire of Nillumbik.

NAGA welcomes the priority focus area of climate change in the Water Plan. NAGA fully supports the proposed objective stated in the discussion paper: "Victoria will continue to invest in climate science to understand the impacts of climate change now and into the future. The water sector will play an important role in both climate change mitigation and helping our communities adapt to climate change. Our water sector will be prepared to minimise the disruption that extreme events, like flood and bushfire, may cause to the provision of this essential service."

NAGA also welcomes and supports the proposed objective "Victoria's water sector will help transform Victorian cities and towns into the most resilient and liveable in the world. We will plan and manage all elements of the urban water cycle in an integrated and innovative way to improve environmental, social and economic outcomes for our communities."

Already across the NAGA region, member councils are undertaking a range of actions to address projected climate change impacts and vulnerabilities, either through defined climate change adaptation strategies, complementary issue specific (e.g. health and wellbeing or integrated water management) strategies or via projects jointly delivered with Victorian Government or Commonwealth Government funding.

NAGA has recently completed a substantial regional climate change integrated vulnerability assessment and action plan called *Adaptation in the North*. The plan identifies key vulnerabilities across the region and priority actions over the next five to ten years.

Diversifying and decentralising water supply as a key adaptation objective

Many of the risks and vulnerabilities identified in *Adaptation in the North* relate to projections of reduced water availability for the region as well as an increased intensity of rainfall events. It is important that the region can maximise opportunities for alternative water sourcing and plan for flexibility as rainfall patterns change by diversifying our water supply, improving water use efficiency and redirecting storm water overflow. This will be increasingly important as the population in the region is expected to increase in the coming decades.

In the NAGA region, the majority of bulk water is provided through the Yan Yean Catchment and Toorourrong Reservoir which in turn supplies a number of suburban service reservoirs. Bulk water to the North East of Melbourne's North is also supplied via the Sugarloaf Reservoir.

All reservoirs in the NAGA region are within Bushfire Prone Areas. As climate change increases bushfire activity, this water infrastructure faces increased risks. Runoff following a bushfire can wash ash and sediment into reservoirs, impacting the ability to provide suitable drinking water for up to several months until water quality improves. As an example the Toorourong Reservoir and catchment was significantly impacted by the 2009 Kilmore-Murrindindi fire.

NAGA therefore considers diversifying and decentralising water supply to be an important strategy for building climate change resilience in the region. The Water Plan should seek to intensify efforts to address water waste on a system level, which will require working across multiple policy areas of government. NAGA councils are demonstrating leadership in this area, such as the City of Banyule's Stormwater Harvesting Project, a $6 million project to capture stormwater, filter out pollution and store the stormwater underground for use in irrigating sports fields and open spaces. This project was a positive example of a unique partnership between Banyule City Council, state and federal governments and Ivanhoe Grammar School.

Decarbonising Victoria's water management sector

NAGA supports the opportunities identified in the paper for water corporations to reduce greenhouse gas emissions.

In striving to achieve carbon neutrality it should be recognised that desalination is the most energy intensive form of water supply augmentation technologies. It is important that in future decisions to utilise the Wonthaggi desalination plant that the State Government keeps to its previous commitment to purchase 100 per cent renewable energy for the operation of the plant. NAGA understands AGL currently has the contract and is required to retire RECs equivalent to the desalination plant's use. However, there is a role for all of this to be publicly accounted through a regularly updated report. Ongoing investment and support should also be made to more sustainable and decentralised water supplies such as recycling, storm and rain water harvesting, and water efficiency measures.

Linking water policy to climate and energy policy will also ensure that moving towards more renewable energy generation also has the added environmental benefits of avoided water use. The existing five coal power stations in the Latrobe Valley use 125 billion litres of water, equivalent to a third of Melbourne's water use annually. This is particularly important consideration, especially with climate change expected to reduce the average annual volume of water available through Melbourne's water system by eight percent in 2020, and 20 percent by 2050.

The importance of urban greening and water management

NAGA supports the proposed strategic direction to work with local governments to enable and embed integrated water management. Many opportunities exist to meet multiple government objectives through facilitating integrated water management, such as promoting urban greening and reducing the urban heat island effect. Over time the greater Melbourne area has seen a loss of pervious areas and natural vegetation leading to higher incidents of flash flooding, reduced water quality and waterway health, higher rates of erosion and degradation of soils.

As Melbourne faces more prolonged and intense droughts and reduced average rainfall, this may challenge efforts to cool the city through urban greening. Water restrictions, drought, reduced plant health and succulent gardens, may if not approached holistically exacerbate urban warming and energy demands. Therefore it is crucial that efforts to invest in greater rates of urban greening is well coordinated across different agencies to ensure a more natural water balance is achieved throughout greater Melbourne.

If you have any specific questions regarding this submission, please do not hesitate to contact me at paul@mefl.com.au or (03) 9385 8507.

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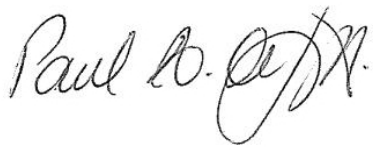
Yours sincerely,



Paul Murfitt

NAGA Chair