Eastern Metropolitan Regional Council
1st Floor Ascot Place, 226 Great Eastern Hwy
Belmont, Western Australia 6104
PO Box 234 Belmont Western Australia 6984

National Water Reform
Productivity Commission Issues Paper March 2017

Eastern Metropolitan Regional Council Submission

Submission date: 18/04/2017
Submitted online: www.pc.gov.au/inquiries/current/water-reform

---

The Eastern Metropolitan Regional Council (EMRC) region constitutes around one-third of Perth's metropolitan area, encompassing 2,100 square kilometres and an estimated population of 360,500 people. The EMRC has six member Councils: the Town of Bassendean, City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and City of Swan. Providing services in waste management, environmental management and regional development, the EMRC is a model of successful collaboration that has initiated projects delivering real benefits to the region.

Perth's Eastern Region, represented by the six member Councils that comprise the EMRC, has world class wineries, an abundance of heritage and cultural attractions and some of the state's most beautiful national parks and walking trails all within 5-45 minutes of Perth's CBD. Spanning inner urban areas to outer metropolitan and urban fringe developments, this area is a growing, vibrant region with significant environmental assets that require protection and optimal management. Within these councils are also some of Perth's most important water assets, including the Swan and Helena Rivers. The region's natural assets face increasing pressure from competing uses; from development of areas for economic benefit, to environmental protection for habitat and clean water, to health and social welfare through increased public access and population growth. A focus on protecting natural resources and addressing climate change, pollution and planning issues are fundamental to the environmental, social and economic well-being of the area, particularly in the context of a drying climate.

The EMRC is a participant of the Cooperative Research Centre for Water Sensitive Cities (CRCWSC) which is currently in the research and synthesis phase of its operation. Outcomes from the CRCWSC will provide assistance with planning for the transition of Perth as a drained city to a water sensitive city.

The EMRC welcomes the release of the Productivity Commission Issues Paper on National Water Reform. The EMRC has reviewed the Issues Paper and provides comments below. The comments focus on Western Australia, the local government sector and, in particular, Perth's Eastern Region.

Eastern Metropolitan Regional Council
1st Floor Ascot Place, 226 Great Eastern Hwy
Belmont, Western Australia 6104
PO Box 234 Belmont Western Australia 6984

National Water Reform
Productivity Commission Issues Paper
March 2017

3 AUSTRALIA'S WATER POLICY REFORM TO DATE

What have been the key benefits of water sector reform to date?

Water sector reform across Australia is at various stages of implementation. The impetus to reform and continually improve is ongoing, particularly in light of the impacts of climate change on water availability. Western Australia's south west is particularly vulnerable, with all of the research and trend modeling undertaken by the International Panel for Climate Change indicating that the south west of WA will continue to experience decreased rainfall. The recently released State of the Environment 2016 Report confirms this finding.

In Western Australia, water sector reform has been mixed, so the benefits have also been mixed. Legislative reform has stalled with the drafting of the *Water Resources Management Bill* commencing but not progressing into legislation. It is hoped that significant progress can be made in 2017 to continue the reform agenda, in consultation with stakeholders and industry.

In the absence of legislative reform, however, the state government agencies responsible for the management and delivery of water have continued to work towards infrastructure and policy improvement to meet and manage urban water demands. The agencies are working with stakeholders to ensure that water is well planned, fit for purpose and future ready.

New desalination and managed aquifer recharge plants have been built to secure water for Perth, ongoing programs have been developed to improve residential, business and government water efficiency as well as improve water quality, and work continues to improve land use planning and understanding of groundwater.

Another benefit of water sector reform to date is the emphasis this reform has brought to all aspects of water, including research for future improvement. The CRCWSC was established in 2012 and builds on the previous work of other CRCs. The EMRC is a participant of the CRCWSC which is a partnership between universities, state and local governments, business and industry undertaking research to ensure that Australia can adapt to the drying climate and ensure enough water for future generations.

Local government is leading by example in Perth, incorporating Water Sensitive Urban Design principles into planning, participating in programs to improve water efficiency such as Water Corporation's Waterwise Council Program, and ensuring that water quality is being maintained in local catchments.

Eastern Metropolitan Regional Council
1st Floor Ascot Place, 226 Great Eastern Hwy
Belmont, Western Australia 6104
PO Box 234 Belmont Western Australia 6984

4 THE COMMISSION'S APPROACH

Assessing progress

The Commission welcomes feedback on:

- ***data and information sources that might be useful for assessing progress (towards the eight key elements of the National Water Initiative)***
- ***areas where NWI reforms are stalled or delayed and consequences of that (for example, have there been costs incurred due to these delays?)***
- ***other unfinished business of the NWI.***

Local governments collect and report data to residents and the public to maintain transparency and accountability, as well as developing programs and policies, and having an essential role in land use planning. There is, potentially, a source of information within local governments to assist with assessing progress towards the key elements of the National Water Initiative (NWI). Examples include:

- Water resource accounting – local government collects and analyses scheme water and groundwater use. Work is also being undertaken in Western Australia under the Water Corporations' Waterwise Council program to benchmark water use efficiency in community and local government facilities. The CRCWSC is also looking at the economic benefits (market and non-market values) of water sensitive urban design.
- Integrated management of water for environmental and other public benefit outcomes – local government undertakes on-ground programs, develops management plans and puts in place policies that protect and enhance the natural environment, as well as having a role in ensuring appropriate land use planning for integrated water management.
- Knowledge and capacity building – local government has partnered with state government and other stakeholders to ensure that water is managed appropriately, as well as ensuring that officers maintain a high level of knowledge. Partnerships include the CRCWSC and Waterwise programs through Water Corporation. New WAterways is Western Australia's capacity building program which builds the water sensitive urban design capacity of government and industry to improve the delivery of urban water management and water sensitive cities.
- Community partnerships – as the level of government closest to community, local government also has a role to play in providing information on community partnerships relating to water, particularly with regard to catchment and water quality management. The CRCWSC is also focusing on community engagement and has produced a number of publications on how this can be enhanced including *Shaping Perth as a Water Sensitive City*.

Legislative reform in Western Australia is progressing, albeit very slowly, with the drafting of the *Water Resources Management Bill* commencing with state government approval in February 2015. It is hoped that significant progress can be made in 2017 to continue the reform agenda, in consultation with stakeholders and industry and with the support of the

new state government. The EMRC provided a submission to the Department of Water's *Securing Western Australia's Water Future Position Paper – Reforming Water Resource Management* in October 2013 to inform the drafting of new legislation and will continue to monitor progress in this regard.

The EMRC notes that "greater specificity around the ecological objectives and outcomes of water reform, underpinned by an appropriate monitoring effort", has not eventuated to date. Again, it is hoped that the drafting of the *Water Resources Management Bill* in Western Australia will take into account consultation on this specific aspect of the NWI, to ensure that water security for people does not come at the expense of the natural environment.

The EMRC also notes that other "unfinished business" has been captured in the preliminary framework reform priorities.

Developing future reform priorities

The Commission welcomes feedback on:

- ***the preliminary framework (table 1)***
- ***priority areas for water reform***
- ***key contemporary and future drivers of water reform.***

The EMRC considers that the preliminary framework outlined in the issues paper has captured the priority areas for ongoing water reform, but makes the following comments in relation to the specifics of the table.

Processes for determining allocation and sharing of water are transparent, inclusive, and cost-effective

- The EMRC notes that it is the process for determining allocation and sharing of water which should be cost-effective, not necessarily the allocation itself. It is important that allocation for environmental purposes is not judged against the same economic factors as allocation for consumption without taking into account the non-market value of environmental water benefits.
- The EMRC agrees that the processes should involve communities and stakeholders to ensure that decisions are made collaboratively.

Water is able to be traded to its highest value use

- This priority needs to be tempered with an understanding of the potential impacts of increasing costs to low income residents and not for profit service organisations as well as to local government, who are being required to provide the same, or better, services to the public as well as manage increasing operational costs. Local governments have a high responsibility when it comes to servicing the public in terms of provision of public open spaces, sporting fields and green infrastructure to mitigate climate change impacts while at the same time being water efficient, innovative and leading by example.

Environmental management is efficient and effective

- The EMRC suggests that the word "appropriate" is added to this priority, to ensure that "efficiency" does not override the importance of water in the natural environment, and that non-market value of environmental water benefits and ecosystem services is taken into consideration.
- The priority of "ensuring there are appropriate institutional and regulatory arrangements for efficient environmental water use" should take into consideration that local government, often in partnership with other stakeholders and the community, undertakes effective catchment management and that this could be more explicitly recognised within institutional arrangements.
- Local government is also already integrating catchment management and other complementary resource management activities, this should be recognised within the wider reform activities.

Rural and urban water services are provided efficiently

- The EMRC suggests that the word "consider" is replaced with "demonstrate" in the priority, "water service providers consider integrated water cycle management in their planning". Integrated water cycle management is now an imperative in a water-constrained environment.

Two other critical areas of water reform are community education and policy. Community education is needed on the total water cycle, not just water efficiency and supporting policies are required to ensure this natural resource is sustainable in the long term.

5 WATER RESOURCE MANAGEMENT

Property rights

- ***What further actions are needed to achieve clear and secure property rights?***
- ***What steps have been taken – or should be taken – to:***
  - ***Unbundle entitlements in unregulated surface water and groundwater systems?***
  - ***Incorporate all water uses (for example, the mining industry) within the one planning framework?***
- ***What new water sources should be brought into a water entitlement process and why?***
- ***Are current approaches to water rights compliance and enforcement fit-for-purpose?***

Actions to achieve clear and secure property rights should include ensuring that the environment and the ecosystems that depend on water for life have sufficient rights and allocations, and that climate change impacts are taken into consideration from the perspective of having increasingly less available water overall. Adaptive processes are needed to respond to Australia's volatile water availability.

Property rights also need to take into consideration the current lack of understanding surrounding the interaction of surface water and groundwater systems to ensure that rights are not over-allocated within co-dependent systems such as shallow aquifers, or that the processes of allocation of rights is flexible enough to adapt to changing understanding of our water systems and water movement.

Regulated water systems should also take a risk management approach where high risk activities that may affect water quality and supply, such as water extraction by the mining, petroleum and unconventional gas sectors and illegal dam construction, are costed and penalised appropriately if water rights are infringed (e.g. by polluting or cutting supply). This would also include managing high risk activities to obtain additional water rights, such as fracking to open aquifers to release water and deep source groundwater boring, which are likely to have adverse environmental and potential health impacts.

In Western Australia, the proposed framework for water legislative reform includes modernising the licensing system with clarification of the rules and simplification of processes for efficiency. The simplification of processes needs to take into consideration the potential for abuse of entitlements or breach of conditions, and that licence application, monitoring and enforcement processes are robust.

There is ongoing development of alternative water sources through water reuse and stormwater harvesting technologies, for example, the CRCWSC is currently researching water reuse through algal biofiltration. Managed aquifer recharge should also be considered in the context of a water entitlement process to enable trading to offset water use for public purposes. Local government is leading the way with this technology, with the Shire of Kalamunda in Perth's Eastern Region developing a pilot managed aquifer recharge system within a large recreational and open space area which takes excess surface water, filters it and then injects it into an on-site shallow aquifer.

Current approaches to compliance and enforcement are not yet fit-for-purpose in all cases, and modernisation of processes to include better data collection and monitoring should be prioritised. There is now cost-effective technology available to ensure that all water use is monitored, whether it is being used by business, government or residents. Ensuring that appropriate data is being collected and reported will enable all water uses to be considered within one planning framework.

Water planning

- ***What are the key areas of water planning where further progress is required to achieve the objectives and outcomes of the NWI?***
- ***Is there scope to streamline water planning processes to reduce unnecessary costs on planners and participants?***
- ***Are processes for reviewing water plans sufficiently robust, transparent, open, and timely?***

- ***Is there scope to improve how water plans deal with long-term shifts in climate affecting resource availability? Are there recent examples of leading practice?***
- ***Are current water entitlement and planning frameworks conducive to investor confidence, facilitating investment in major new infrastructure (such as in northern Australia), while managing risks to the supply security of existing water users?***
- ***How can the interests and needs of Indigenous people be better accommodated and represented in water planning processes?***
- ***What steps have been taken — or should be taken — to integrate water quality objectives into water planning arrangements?***

Key areas of water planning where further progress is required to achieve the objectives and outcomes of the NWI include:

- Using risk management as an approach to integrate water quality objectives into water planning;
- Developing a comprehensive risk matrix for activities which impact on water security and water quality;
- Developing and implementing an environmental water allocation process which incorporates non-market value of benefits and ecosystem services; and
- Ensuring that legislative reform in Western Australia is in line with current best practice throughout the rest of Australia.

There is potential to streamline water planning processes to reduce unnecessary costs on planners and participants through incorporating a risk management approach, ensuring that the risk matrix is designed appropriately and enough information is gathered and verified when assigning the level of risk. For example, for licencing of property rights to water allocation, the proponent has to have a clear understanding and provide evidence of how much water will be used/required annually, as well as obtaining information on the health and capacity of the potential water source, any co-dependence with other water sources, all existing users and the environmental water allocation.

Current water entitlement and planning frameworks are not conducive to investor confidence, facilitating investment in major new infrastructure, while managing risks to the supply security of existing water users. As noted above, some additional work is required to quantify the risks and benefits within the system and improve data. Improving the underlying monitoring and risk management of the system will improve confidence and encourage investment.

There is scope to improve how water plans deal with long-term shifts in climate affecting resource availability by incorporating data and modelling from Climate Change in Australia (CSIRO and Bureau of Meteorology) across policy and planning as standard practice. This publication uses best practice modelling to estimate likely changes to climate across Australia. Incorporating the predicted impacts of climate change within a risk management approach should ensure appropriate planning.

Eastern Metropolitan Regional Council
1st Floor Ascot Place, 226 Great Eastern Hwy
Belmont, Western Australia 6104
PO Box 234 Belmont Western Australia 6984

Water trading

- ***To what extent has the NWI goal of open water trading markets been achieved?***
- ***Are there worthwhile opportunities to expand trade to new regions and water resources?***
- ***Are there restrictions on trading water that are unwarranted and should be removed or revised?***
- ***Are there actions that governments should take to reduce costs and delays of trading water, including for inter-region and interstate trade?***
- ***How can water market information be made more timely, reliable and accessible in a cost-effective way?***

In Western Australia, the NWI goal of open water trading is yet to be realised. The water reform agenda is progressing slowly. Water trading needs to take into account the water needs of biodiversity and ecosystem services.

Environmental management

- ***What are the guiding principles for 'best practice' management of environmental water? Are the institutional and governance arrangements for held environmental water working well?***
- ***What is the role for governments in promoting trade in environmental water, and acquiring environmental water at least cost to the community?***
- ***How can institutional arrangements be used to ensure agencies with natural resource management responsibilities (including environmental water managers) pursue least-cost approaches to achieving environmental and other public benefit objectives?***
- ***Are the policies that affect the health of water systems sufficiently integrated?***

The National Principles for the Provision of Water for Ecosystems (1996) developed by the Agriculture and Resource Management Council of Australia and New Zealand and Australian and New Zealand Environment and Conservation Council provides a good starting point for management of environmental water.

A role for local government in the trade of environmental water and acquiring environmental water at least cost to the community would be to invest in infrastructure to provide appropriate alternative water sources, such as managed aquifer recharge, in situations where existing water sources are fully allocated. A role for state and federal governments would be to provide competitive grant funding to support local government investment in infrastructure.

The issues paper refers to "environmental outcomes that the community values". The EMRC questions whether the value that community places on environmental outcomes is the best method for assessing environmental outcomes. The valuing of non-market environmental benefits and ecosystem services is an expanding field with research and development being

undertaken across a number of sectors, including water. The EMRC encourages consideration of the currently available information in this field to inform the review.

Pursuing "least-cost approaches to achieving environmental and other public benefit objectives" is not appropriate to achieving NWI objectives. In the long term, pursuing best value approaches with multiple benefits is likely to achieve better outcomes. This can be achieved by incorporating standardised best value evaluation criteria in line with guiding principles for environmental water management into water planning at all levels.

The policies that affect the health of water systems in Western Australia are not sufficiently integrated at a state level. There are many agencies working in this space and the CRCWSC has assisted in creating a more collaborative working environment, however there is still much work to be done. This should be considered during the next phase of water reform. At a local government level, water quality has been incorporated into water management planning for many years, and local government is also integrating catchment management and other complementary resource management activities. Federal funding for the support of catchment management has declined in recent years. State government support through the Department of Parks and Wildlife Rivers and Estuaries Division has been vital and assisted the EMRC in supporting community groups in catchment management activities in Perth's Eastern Region. Future landcare related funding should also support the continuation of catchment management.

It is agreed that gaps in monitoring and reporting still exist and can be complex to manage. A simplified and unified reporting system would be of great value.

6 WATER SERVICES

Rural water services

No comment.

Urban water services

- ***What policy and institutional arrangements are needed in the urban water sector to improve the efficiency of service provision?***
- ***What approach should be taken to price regulation in the urban water sector? Is there a need for greater consistency in price setting approaches across different jurisdictions? Do current pricing practices promote investor confidence?***
- ***Is there a case to increase the involvement of customers in regulatory decision making, as is commencing in Victoria? If so, what is the best way to do this?***
- ***How can the level of competition in the provision of urban water services be increased?***
- ***Do water and wastewater services delivered to regional and remote communities, including Indigenous communities, comply with relevant public***

health, safety and environmental regulations? If not, what policy remedies might improve performance?

- ***Do the processes for determining public health, safety and environmental regulations applying to urban water providers promote cost-effective and targeted regulations? Do the various policy-making and regulatory bodies have clear roles and responsibilities?***
- ***What is the importance of integrated water cycle management? Are roles and responsibilities in relation to this clear?***
- ***How can demand management approaches such as water restrictions and water-use efficiency measures best contribute to the efficiency of urban water services?***

The CRCWSC *Shaping Perth as a Water Sensitive City* document has guiding principles for water sensitive practice in the Greater Perth area. One principle is that clear governance arrangements are needed and should define roles and responsibilities of the water cycle. Another principle is that overarching governance arrangements for water management ensure coordination and consistency with mutually reinforcing approaches across stakeholder organisations. A barrier to water sensitive cities identified in the document is the narrow and incompatible mandates of organisations with responsibility for delivering water-related services, as organisations are not mandated to cover the whole spectrum of water sensitive cities, with a large gap identified in water quality management. Community demand for water sensitive cities was identified as the necessary motivation for action. It was recommended that organisations involved in water be given a mandatory role to achieve water sensitive practices.

The pricing of water can sometimes be a barrier for local governments to make investments in water sensitive urban design. The low return on investment, due to the low cost of water, can make it difficult to build a strong business case. The CRCWSC has been undertaking some work on the economic benefits (market and non-market valuation) of water sensitive urban design to assist in helping develop a strong business case.

The policy and institutional arrangements needed in the urban water sector to improve the efficiency of service provision in Western Australia should come into force following legislative water reform. These arrangements will need to be reviewed once in place to ensure ongoing improvement.

7 ACHIEVING REFORM

- ***Should further water reform be pursued through an improved NWI?***
- ***How can policy impetus be best generated?***

The EMRC considers that further water reform through an improved NWI which takes into account the changing climate, alternative water sources and best practices principles of environmental water management is essential to ensure a secure water future for Australia. Australia needs to continue improving its water management, embed water sensitive urban

design into all organisations with a mandate of managing water as well as planning and infrastructure projects, and embrace the principles of the water sensitive city.

The CRCWSC employs visioning techniques to build understanding of the water sensitive city. In Western Australia, the main water agencies, Department of Water and Water Corporation, are essential participants of the CRCWSC and have already begun incorporating the principles of a water sensitive city into practical applications and policies. This commonality of vision, language and principles will encourage the water reform agenda in Western Australia to continue progressing.

In the wider Australia context, policy impetus does not need to be "generated" in the current climate of extreme weather events, simply harnessed and encouraged.

Policy needs to be driven via community education and engagement and a shared vision by the agencies involved in the provision of water services. Support through forums such as the CRCWSC bring together the different levels of government, industry and research institutions and play a large role in building networks and positive collaboration.

Reform can also be driven through incentives such as funding for water sensitive urban design projects that can demonstrate best practice to the community. This enables local government to co-invest in projects that deliver positive outcomes for the community. Support is needed to trial and implement different green infrastructure that can deliver water sensitive cities outcomes.

Contact details:

Wendy Harris
Acting Chief Executive Officer
Eastern Metropolitan Regional Council
226 Great Eastern Highway, Belmont WA 6104
EMRC: 08 9424 2222