

Illustrative TBL Presentation for Cabinet Submissions

Directorate: Environment and Planning Directorate

Title of the Submission: 16/148 Alternative Management and Funding Models to Sustainable Operation and Maintenance of Stormwater Water Quality (WQ) Assets

Summary of Impacts

- The Alternative Management and Funding Models to Sustainable Operation and Maintenance of Water Sensitive Urban Design Assets ('alternative management and funding models project') addresses a previous Cabinet decision (14/122) which agreed to look at managing water sensitive urban design (WSUD), namely stormwater water quality assets to provide a better outcome to the community and the environment.
- The ACT WSUD Review Report released in 2014, identified a number of issues related to WSUD, namely from concept to design, planning and construction that have a negative impact on operational performance.
- The work carried out by CAB SUB 16/148 has reiterated the need to look at alternative options as maintaining status quo is simply not working. Other jurisdictions operate and maintain assets differently to the ACT model, and in turn allows for optimally efficient infrastructure achieving more than just water quality objectives, including social, environmental and economic benefits.
- The recommendations in the supporting documentation from Marsden Jacob Associates (2016a and 2016b) recommends three preferred options, namely the two alternative management options are: i) setting up a stormwater utility within government; or ii) transferring assets and management responsibilities to Icon Water. The preferred funding option is: iii) a cost reflective stormwater charge.
- A proposal to maintain status quo or without accepting the findings made by Marsden Jacob Associates (MJA), could lead to a higher number of poorly performing assets.
- Lake closures in 2007-2014 have increased, on average, by approximately 9 days per year for the ACT urban lakes (Lake Burley Griffin, Tuggeranong and Ginninderra). Modelled data from the ACT Basin Priority Project suggests that the 'do nothing' approach will mean lakes such as Lake Tuggeranong will be closed for recreational activities for 365 days per year by 2050.
- Developing capacity in relation to implementing and managing sustainable water infrastructure differently will mean employment within the ACT, and continued capacity building of community, industry and government in this specialised area.

Key to impacts: Red – negative, Amber neutral and Green Positive.

Social

Community and individual health	• Alternative management processes supported by a cost reflective stormwater charge will lead to a decreased number of days of lake closures and well maintained waterways allowing for more recreational activities and improved human health. • A proposal to maintain status quo or without accepting the findings made by Marsden Jacob Associates (MJA), could lead to a higher number of poorly performing assets.
Access to services	• The proposal will encourage access to community spaces and facilities through better maintained assets.
Housing and affordable housing	• Alternative management processes could be perceived as having an impact on housing affordability through the cost reflective stormwater charge.
Disadvantaged and vulnerable	• The benefit from improved waterways and maintained green spaces and living infrastructure as they will provide cooler urban environments in our high density areas.

Economic

ACT Government Budget	- Refining current management arrangements has potential to improve the operation and maintenance (O&M) situation for assets however it is unlikely to meet optimal industry standard with the current funding arrangements. - The proposal of a cost reflective stormwater charge will provide resources to reduce infrastructure failure liability and community complaints of poorly maintained assets. - Prioritising stormwater and water quality for government will provide savings to the ACT Government Budget into the future, as alternative management and funding should encourage better constructed assets that avoid rectification costs. It also has the potential to build in asset renewal and decommissioning without competing for resources within the existing ACT Government Budget.
Employment	The proposal has potential to increase the number of jobs in both public and private sector in O&M practices. Furthermore the proposal implementation and delivery (for example a cost reflective stormwater charge or a stormwater utility set up) will build capacity of the ACT Government.
Investment and Economic Growth	The proposal will have positive public and/or private investment into the ACT economy by allowing developers more confidence in constructing innovative assets knowing that they will be supported with optimal O&M practices by government. At present the feedback from industry is the dissatisfaction that they are required to comply with WSUD targets and that once assets are handed over, they are not optimally operated and maintained.
Consumption	- An additional cost reflective stormwater charge has the potential to impact on some households as it will be an added cost, however this should be offset by provisions to ensure the disadvantaged are not affected and a reduction in rates to offset the cost of the charge/or levy. - Optimally operated and maintained assets have other economic benefits, such as increased property value with proximity to well performing waterways and green spaces, more recreational activities can take place on and around our urban waterways and less complaints to government regarding the perceived negative impact that the water quality is having on their property prices (eg. Lake Tuggeranong).
Cost of living	As above.

Environmental

Biodiversity	WSUD provides multiple biodiversity benefits as it encourages green and living infrastructure to thrive. The proposal will have a positive impact on ecology across the Territory through increased urban landscape connectivity to allow for species migration because of the increased biodiversity.
Landscape changes	- A cost reflective stormwater charge has potential to change our urban landscape. Optimally maintained assets will provide aesthetic improvements to our urban fabric through improved water quality in our waterways with less algae blooms or silted water bodies through to established vegetation around wetlands and ponds. - Human-made structures such as gross pollutant traps will also be cleaned to optimal industry standard and gross pollutants will not sit in trash racks appearing unsightly leading to less public complaints.
Natural resources	Stormwater WQ assets protect our natural resources such as our waterways. It protects downstream impacts and aquatic habitat.
Environmental quality	Changes to how we operate and maintain assets will lead to real improvement of water quality and is in alignment with our Murray-Darling Basin Plan obligations.
Greenhouse gas emissions	- WSUD is in alignment with all ACT Government's climate change and adaptation policies including the most recent draft ACT Climate Change Adaptation Strategy and a previous Cabinet Discussion Paper presented to the URSC on Living Infrastructure (15/113). - Optimal O&M of green living infrastructure such as trees, shrubs and grasses and allowance for passive watering encourages cooler urban environments and helps to alleviate the urban heat island effect.
Water	- Total water cycle management will be improved through a cost reflective stormwater charge and change how we currently operate and maintain water quality infrastructure. - Well maintained stormwater WQ assets which have a stormwater retention and detention function will avoid nuisance flooding, especially in our urban renewal areas, when systems have the potential to overflow due to gross pollutants and more frequent rainfall intensity. - Alternative management and funding will support a number of ACT water policies including the ACT Water Strategy: Striking the Balance 2014-44 and the final ACT and Region Catchment Strategy: 2016-2046. - Better management of our water cycle will improve water quality and aquatic ecosystem health.
Microclimate	- Landscape connectivity, increased biodiversity and stormwater WQ assets will be better supported by alternative management through additional funding. - Living (green) infrastructure (new and existing) across the Territory provides microclimate benefits as it will encourage the cooling of urban environments. This proposal supports the mitigation risk of dying vegetation stock from lack of passive watering opportunities.
Waste	Currently all gross pollutants collected from street sweeping and gross pollutant traps are transferred to Mugga Lane Resource Management Centre. There is opportunity not explored with this project that could look at alternative uses of nutrient laden material extracted from assets such as Gross Pollutant traps etc.

Directorate: Environment and Planning Directorate

Title of the submission: ACT and Region Catchment Strategy

Cabinet reference: 15/772

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Step 1: Problem identification and policy goal

Policy questions	Response/explanation
What is the problem to be addressed?	The ACT Government has acknowledged that there are better ways to improve O&M for stormwater WQ assets (CAB 14/122), through the release of the ACT WSUD Review Report (2014) which committed the government to look at alternative ways to manage this infrastructure class. Stormwater water quality infrastructure which are the focus of this project are constructed to meet the water quality objectives set out in the Territory Plan and also our larger commitment to improving water quality in the Murray-Darling Basin. Unfortunately these assets are currently not managed to their optimal performance. Some assets have been proven to be a water quality liability and potential nuisance flooding through lack of O&M. Under performing assets in a resource restrictive environment has meant assets are not performing and becoming a liability to government and the community.
What is the policy goal?	The goal of this submission is to seek the ACT Government's endorsement to continue to investigate a cost reflective stormwater charge as the preferred funding option and setting up a stormwater utility/unit within government; transferring assets or O&M responsibility to Icon Water or refining current arrangements as the preferred management options.
Is government intervention necessary and can we be sure it will not make things worse in the long term?	Yes, the current cost pressures of government have meant that O&M of stormwater WQ assets are sometimes dealt with when there are complaints. Noting also that O&M practices for gross pollutant traps (the most regularly maintained asset) are nowhere near optimal suggestions for this asset class and can become a liability issue for maintenance managers. Without government intervention and an increasing asset class with new development, an ageing asset base that will be requiring asset renewal and decommissioning and additional infrastructure through the ACT Basin Priority Project will mean further insufficient funding for O&M. Current management practices will also need to change to show more accountability on practices, refining the way we deal with soft

	infrastructure and having a performance framework on reporting is also required. Government needs to acknowledge the importance of stormwater in our urban environment and the benefits a total water cycle management can bring to our community and the environment.
What options have been considered?	The Cabinet Submission outlines a number of options including: • cost reflective stormwater charge/levy (funding option) or refining current budget provisions. • establish a stormwater utility/unit with ACT Government (management options) or transfer water quality assets to Icon Water or finally transfer O&M responsibility only to Icon Water. Each of these options also has some differences in their implementation. • To continue business as usual. This would involve no change and the current problems will continue to exist.
Does the preferred approach align with the ACT Government's strategic priorities?	Yes, the proposal supports the ACT Government's commitment to liveability and opportunity, urban renewal and growing the economy. Addressing water quality in a better environment with cost reflective charges will improve the liveability and wellbeing of the community.
Does the domestic and international evidence support intervention?	Yes, international and national experiences and examples have been drawn on with this body of work. Eight alternative management and funding models were sought from overseas and national examples. In practice, the other jurisdictions in Australia have implemented a number of funding and management arrangements that are cost reflective and provides accountability in management approaches. Examples have been provided in the Cabinet Submission include: • NSW Stormwater management charge • Melbourne Water's Waterway and Drainage charge and also the maintenance agreements between Melbourne Water and the local council • South Australia stormwater grant stormwater fund • Queensland offsets scheme.
Is the policy proposal technically feasible?	Yes. The implementation pathways have been explored at a preliminary level demonstrate that this is feasible.

Step 2: Preliminary assessment

In the matrix below, indicate all expected impacts (positive, negative, or not applicable (n/a)) of the policy proposal against each of the TBL assessment criterion. Significant impacts should be highlighted in **bold**.

Social	Economic	Environmental
Community and individual health	ACT Government Budget	Biodiversity
Positive	Neutral	Positive
Access to services	Productivity and Innovation	Landscape changes
Positive	N/a	Positive
Housing and affordable housing	Income levels and distribution	Heritage
Positive	N/a	N/a
Access to social networks and community activities	Employment	Natural resources
Positive	Positive	Positive
Human rights	Small Business Impact	Environmental quality
N/a	N/a	Positive
Gender	Skills and Education	Greenhouse gas emissions
N/a	Positive	Positive
Indigenous and multicultural	Investment and Economic Growth	Water
Positive	Positive	Positive
Impacts on different age groups	Consumption	Air
N/a	N/a	N/a
Disability	Competition	Microclimate
N/a	Neutral	Positive
Disadvantaged and vulnerable	Cost of living	Visual quality
Positive	Neutral	N/a
Justice and crime	Procurement	Waste
N/a	N/a	Neutral

Step 3: Detailed analysis

Social impacts

Community and individual health
Alternative management processes supported by a cost reflective stormwater charge will lead to a decrease number of days of lake closures and well maintained waterways leading to more recreational activities on and around the waterways and improved human health.
A proposal to maintain status quo or could lead to a higher number of poorly performing assets resulting in more lake closures. On average, Lakes Tuggeranong, Ginninderra and Burley Griffin have had increased in closures by 9 days per annum during 2007-2014.
Access to services
The proposal will encourage access to community spaces and facilities through better maintained assets. Furthermore, it will encourage more use of these facilities if they are better maintained.
Housing and affordable housing
Alternative management processes could be perceived as having an impact on housing affordability through the cost reflective stormwater charge as it potentially increases the cost of living. However, noting that improved amenity of our urban waterways has many benefits making our urban renewal areas more appealing to live in through greener spaces and cooler urban environments. It also encourages liveability.
Access to social networks and community activities (community's sense of wellbeing)
N/a
Human rights
N/a
Gender impacts
N/a
Indigenous and multicultural
N/a
Impacts on different age groups
N/a
Disability
N/a
Disadvantaged and vulnerable
The disadvantaged and vulnerable will benefit from improved waterways and maintained green spaces and living infrastructure as they will provide cooler urban environments in our high density areas. These

community spaces will offer areas to convene and recreate around. Warmer environments can lead to greater health problems, a study carried out by NCCARF (2009) stated in Melbourne there were 374 excess deaths (deaths above what would be expected for the period of the event) and in Adelaide estimates ranged from 50 to 150, with more than 3000 reports of heat-related illnesses during the 2009 heatwave.

A proposal to maintain status quo will ultimately lead to a higher number of poorly performing assets.

Economic impacts

ACT Government Budget

Refining current management arrangements has potential to improve the O&M situation for assets however noting it is unlikely to meet optimal industry standard with the current funding arrangements. The proposal of a cost reflective stormwater charge will provide recourses to implement the reforms. Implementation of such a cost reflective charge will, over time, help to alleviate pressures on budget bids through consolidated revenue as capex and opex requirements will be already costed through the charge.

Prioritising stormwater and water quality for government will provide savings to the ACT Government Budget into the future as alternative management and funding should encourage better constructed assets that avoid rectification costs. It also has the potential to build in asset renewal and decommissioning without competing for resources within the existing ACT Government Budget.

Productivity and Innovation

N/a

Employment

The proposal has potential to increase the number of jobs in both public and private sector in O&M practices. Furthermore, the proposal implementation and delivery (for example a cost reflective charge or a stormwater utility set up) will build capacity of the ACT Government in developing capacity with officers. It also provides opportunities for O&M staff to up skill on maintenance practices outside of what they are confined too.

Small Business Impact

N/a

Skills and Education

N/a

Investment and Economic Growth

The proposal has potential to have positive public and/or private investment into the ACT economy by developers proposing innovative assets knowing that they will be supported with optimal O&M practices. At present the feedback from industry is dissatisfaction in that they are required to comply with WSUD targets and that once assets are handed over, they are not optimally maintained. The proposal of alternative approaches is well supported by industry. The proposal has been suggested by the ACT WSUD Technical Panel, six industry experts, and has been well supported and often mentioned in public forums and stakeholder meetings.

Consumption

An additional cost reflective stormwater charge has the potential to impact on some households as it will be an added cost, which may potentially impact on household consumption of goods and services. However this

should be offset by provisions to alleviate any burden on disadvantaged sections of the community and a reduction in rates as costs are shifted to a stormwater charge or levy. Also note that optimally operated and maintained assets have other economic benefits, such as increased housing prices to those properties in close proximity to waterways and green spaces, more recreational activities that can take place on and around our urban waterways and residents (for example surrounding Lake Tuggeranong); less complaints to government regarding the perceived negative impact that the water quality is having on their property prices and living standards.

Competition

N/a

Cost of living

As above in consumption.

Procurement

N/a

Environmental impacts

Biodiversity

WSUD provides multiple biodiversity benefits as it encourages green and living infrastructure to thrive. Supporting a proposal which looks at alternatives funding and management will have a positive impact on ecology across the Territory through increased urban landscape connectivity to allow for species migration increased biodiversity. Green spaces also allows for ecosystem services within our urban environment and encourages flora and fauna in our dense environment.

Landscape changes

A cost reflective stormwater charge has potential to change our urban landscape. Optimally maintained assets will provide aesthetic improvements to our urban fabric through improved water quality in our waterways with less algae blooms, or silted water bodies, and established vegetation around wetlands and ponds. Human-made structures such as gross pollutant traps will also be cleaned to optimal best practice standard and gross pollutants will not sit in trash rack areas appearing unsightly and ultimately exacerbating water quality issues. This will mean fewer complaints to Access Canberra.

Heritage

N/a

Natural resources

Stormwater WQ assets protect our natural resources such as our waterways. It protects downstream impacts and aquatic habitat through stormwater quantity (retention and detention measures) and stormwater water quality treatment infrastructure.

Environmental quality

Changes to how we operate and maintain assets will lead to real improvement of water quality and is in alignment and agreement with the Murray-Darling Basin Plan. Environmental quality, landscape connectivity and aquatic ecosystems will be improved by alternative arrangements.

Greenhouse gas emissions

WSUD is in alignment with all ACT Government's climate change and adaptation policies including the most recent draft ACT Climate Change Adaptation Strategy and a previous Cabinet Discussion Paper presented to the URSC on Living Infrastructure (15/113). Optimal O&M of green living infrastructure such as trees, shrubs and grasses and allowance for passive watering of this biodiversity allows for cooler urban environments and mitigate the urban heat island effect.

WSUD can assist in the Carbon Neutral ACT Government Framework as it encourages more coverage of our urban tree forest which can assist in carbon sequestration.

Water

Total water cycle management will be improved through a cost reflective charge and changes to how we currently operate and maintain water quality infrastructure. This will result in fewer days of lake closures due to blue-green algae blooms. Well maintained stormwater WQ assets which have a stormwater retention and detention function will avoid nuisance flooding, especially in our urban renewal areas, when systems have the potential to overflow due to gross pollutants and more frequent rainfall intensity. Alternative management and funding have been identified in a number of ACT water policies including the ACT Water Strategy: Striking the Balance 2014-44 and the final ACT and Region Catchment Strategy: 2016-2046. Better management of our water cycle will improve water quality and aquatic ecosystem health.

Air

N/a

Microclimate

Landscape connectivity, increased biodiversity and water sensitive urban design will be better supported by improved management and additional funding. Living (green) infrastructure (new and existing) across the Territory provides microclimate benefits as it will encourage the cooling of urban environments. This proposal supports the mitigation risk of dying vegetation stock from lack of passive watering opportunities.

Visual quality

N/a

Waste

Currently all gross pollutants collected from street sweeping and gross pollutant traps are transferred to Mugga Lane Resource Management Centre. There is opportunity not explored explicitly with this project that could look at alternative approaches to this arrangement and the beneficial use of nutrient laden sourced for assets such as gross pollutant traps.

TBL assessment summary/results

TBL assessment — key findings and conclusions

The further investigation of a cost reflective stormwater charge and review of management and institutional arrangements such as the establishment of a stormwater utility or unit within government or transfer of assets to Icon Water will provide positive contributions to the Territory in terms of water quality infrastructure asset management.

Current management and funding arrangements for stormwater WQ assets management is clearly not working and the Cabinet decision (14/122) endorsed the investigation for alternative arrangements. Maintaining status quo will result in additional poorly performing and failed assets. This ultimately means infrastructure does not meeting our own water quality objectives; has impacts on aquatic habitat and our quality of life for our greater community (i.e. closure of lakes for recreational use due to blue-green algae

blooms).

A cost reflective stormwater charge will ensure that there is funding to optimally maintain water quality infrastructure. Furthermore, assets that are maintained will minimise the impact of nuisance flooding due to clogging and workplace, health and safety issues surrounding gross pollutant traps which are exceed its capacity causing liability safety issues for maintenance officers and contractors.

With a warmer climate, intense rainfall and a growing populations will apply additional pressure to our water quality assets. Alternative management arrangements will bring positive economic, environmental and social benefits to the community, to the industry and to government.

DRAFT

Implementation risk	Risk level	Explanation
Does the proposal have clear intervention logic and identify weak links in the chain of causation?	High	The proposal of creating a cost reflective stormwater charge will help to alleviate the risk of failing and poor performing water quality infrastructure and the issue of a growing asset stock. However, maintaining status quo is clearly not working creating a high risk. Resistance to change is the weakness to this project.
Have implementation risks/barriers been clearly identified?	Medium	Preliminary implementation pathways were introduced in the first report by Marsden Jacob Associates (Feb. 2016). Further information has been explored with the pre-feasibility options study work. The risks and barriers include differing views between different directorates and external stakeholders such as Icon Water, the industry and the community.
Is there a clear strategy for mitigating such risks?	Low	Yes, the Directors-General Water Group offers an opportunity for executives at the highest public service level to discuss the risks associated with this project.
What are the consequences of action?	Nil	Consequences of actions will be positive.
Is the cost of the mitigation strategy proportionate?	Nil	N/a
Has an appropriate monitoring system been identified for evaluating change?	Low	A performance framework and clear reporting have been recommended as part of this project.
Have robust key performance indicators been identified for evaluating change?	Nil	Key performance indicators have been identified based on best practice principles to determine the current management and funding arrangements.
Have the costs for performance measurement been properly identified?	Nil	To a degree, there have been modelled performance measures identified through the construction of water quality infrastructure through the ACT BPP and assumed that they are operated and maintained in an optimal environment will result in less days of lake closures.

Risks should be ranked as 'high', 'medium', 'low' or 'nil'¹.

Risk management strategy for significant implementation risks
The Directors-General Water Group offers an opportunity for the oversight of risk management.

¹ Also refer to the existing risk management framework used by the ACT Government at <http://www.treasury.act.gov.au/insurancrisk/>.