

# Stormwater Management workshop

## Workshop Summary

16 May 2019

Note: The comments in this summary are not endorsed LGA Board of Directors. It has been prepared by the LGA Secretariat for engagement purposes only.

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## Introduction

The Local Government Association of South Australia is undertaking a project to better understand current legislation and policy in stormwater management in South Australia with the aim to advocate for change that supports improved management and effective distribution of roles and responsibilities.

To seek input into the project from South Australian Councils, the LGA prepared a discussion paper and issues paper for feedback in 2018. The LGA then hosted a workshop in April 2019 to:

- Discuss how stormwater is currently managed in South Australia
- Identify what is working and what is not
- Identify opportunities for improvement.

This report presents the results of this workshop.

## The Workshop

The workshop was held at Local Government House on Frome Street in Adelaide on Tuesday 16 April 2019 from 10am to 12noon.

45 people participated in the workshop - 38 in person and 7 via a live webinar.

The workshop was independently facilitated by Zoe Hambour from URPS and included the following activities.

### Activity 1- What would characterise an ideal system for managing stormwater?

This activity asked participants, putting aside what is happening now and what they think may or may not be possible, what elements would characterise an ideal system for stormwater management?

In small groups around tables, participants were asked to brainstorm elements of a stormwater system that they think would feature if we were managing stormwater well.

Each table was asked to document their elements as a list of dot points on a “long list” poster.

After 15 minutes each table was asked to agree, as a group, on the top three elements that they think are most important and to write these as complete sentences on the “short list” poster provided, for example “roles and responsibilities in stormwater management are clearly defined and agreed”.

A whole group facilitated debrief was then held and each table was asked to report back one of their top three and these were documented on the whiteboard until a complete list was generated.

### Activity 2 - How do we move towards our ideal system?

Each table was allocated one of the key elements that were identified in the first activity and were asked to discuss:

- Why is this element/feature important to a well-functioning stormwater management system?

- What works now in relation to this key element/feature?
- What needs improving in relation to this key element/feature?
- What specific actions could be taken to work towards better delivering this key feature/element?

Each table was asked to document their discussion in a table that included each of these questions.

After 20 minutes each table was asked to agree on up to two key actions that could be delivered to progress the key element/feature.

A whole group facilitated debrief was then held during which each table reported back on one key action which was documented on the whiteboard.

## Workshop Results

The following section presents comments generated during the workshop across both activities.

### Activity 1- What would characterise an ideal system for managing stormwater?

The below eight key elements/features were identified by participants as being most important in an ideal system for stormwater management. These elements were identified as most important through a group de-brief at the end of activity one during which each table put forward their top priority. Other elements identified are provided in the “short list” and “long list” on the following pages.

#### 1. Leadership

Participants are looking for strong leadership that provides clarity in roles and responsibilities at different levels (e.g. local and state government) and clear direction of the priorities for the State through legislation/regulation and state-wide strategy.

#### 2. Centralised Management Body

Participants suggested a Centralise Management Body is needed (to “leadership” above). This body would be responsible for integrated flood mapping, planning, community education and disbursement of funding. Participants also suggested this body should have a stronger role in planning, regulation and development.

#### 3. Fair and Equitable Service Levels

Participants suggested that a state-wide Service Level Framework be established to provide a consistent standard for service levels/flood prevention across the state. This framework would underpin funding decisions to ensure that they are fair, equitable and address greatest need.

#### 4. State-wide Strategy

Development of a State-wide Strategy for stormwater management was identified as important by participants. This strategy would involve and encourage collaboration of all levels of Government and community (e.g. landowners), would be based on evidence (e.g. flood

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mapping) and would strengthen integration with legislation and regulation (e.g. Planning Development and Infrastructure Act). The strategy would outline priorities and guide funding decisions (based on flood and population mapping) to ensure sustainable and equitable outcomes across the state.

## 5. Managed Community Expectations

It was recognised by participants that the profile of stormwater needs to be raised in the community. That there needs to be improved community education outcomes regarding flood risk, what stormwater management can and can't do, and what community responsibilities are.

## 6. Stormwater Needs to “Grow Up”

A strong message was that it was time for reform/action and to stop the same ongoing conversations without improvements in stormwater management. Participants cautioned that the imperative for improved stormwater management and the value of stormwater must be acknowledged and acted upon now.

## 7. Regulatory Framework

Participants suggested that a stronger a regulatory framework needs to be established to empower and enforce funding and delivery and to better integration of stormwater management considerations early into planning for development, transport and infrastructure. Participants suggested that planning policy should better promote management of impacts on stormwater quantity and quality for all scales and types of development (e.g. residential, industrial, commercial) and could better integrate WSUD/green infrastructure into development.

## 8. Dedicated and Adequate Funding

Participants commented that long term, dedicated, predictable, transparent and adequate funding sources are required to respond at different scales and achieve the best outcomes. Suggestions included: a self-funded/user pays systems, offset and credit trading for developers, developer contributions to off-site treatments, drainage charges, and incentives for on-site stormwater management, committed state and federal government funding and levies.

The following is a verbatim combined “short list” of elements, identified by participants across all tables that characterise an ideal system for managing stormwater.

- There must be a STATE STRATEGY ensuring local and state collaboration with committed funding at State and Federal level
- State Strategy on Stormwater Management must be incorporated into the Development Act
- Raising the profile of Stormwater Management in the community
- Sustainable and equitable outcomes across catchments
- Multiple benefits
- Climate adaptive stormwater management
- Roles and responsibilities in stormwater management are clearly defined and agreed between all parties
- Leadership in stormwater management is required to provide clarity of roles and responsibilities and direction for priorities for the State

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- Ownership and responsibility for watercourses (e.g. River Torrens and West Lakes Lake) needs to be clarified and agreed to ensure that they are maintained and remain efficient in their operation to reduce risk of flooding
- Acceptable service level and a state-wide management frame work
- Integration of strategic direction and planning
- Ability to mentor and monitor sustainably (staff, system)
- Stormwater needs to grow up!
- Recognising stormwater as a valuable resource
- Legislation and funding
- Identify and implementing sustainable revenue (tax)
- Managing community expectations and understanding what stormwater management can/cannot do
- Better legislation standard to articulate roles and responsibilities
- Centralised management body with responsibilities for integrated flood mapping over the metro area, development control and community education
- Sustainable, adequate, flexible and efficient stormwater fee (drainage charge) – long term predictable funding
- Public ownership of priority infrastructure, e.g. trunk drains, creeks

The following is a verbatim combined “long list” of elements, identified by participants across all tables that characterise an ideal system for managing stormwater.

### Long List

- Revenue – emergency levy, new funding stream
- Roles and responsibility, clarity and accountability
- Consistent standard
- Expectation management
- Realise the opportunity
- Interpretation/intergeneration– prevent to opportunity? (*unclear handwriting*)
- Simple regulation
- Public ownership
- Compliant regime? (*unclear handwriting*)
- Planning policy that recognise the impact on S/W in quantity and quality
- Supporting/recovery
- Community education – information accessible
- Genuine recognition of importance of stormwater management
- Connection of appropriate funding mechanism
- A central management authority
- Clear understanding of ownership, roles and responsibilities
- Uniform design standard
- Recognise different challenges; urban versus rural
- Adopted water quality standards
- Integrity of professional services industry

- Leadership
- Roles and responsibilities
- Quality and quantity (flooding and water quality)
- Planning policy
- Integration between planning, transport and infrastructure (DEW/NRM/SES)
- Lack of consistency in prioritising
- Differences in Cost Benefit Analysis
- Funding availability (proportion of contribution changing)
- Climate change
- Reduced community resilience
- Increased community expectations (service level increase)
- Consideration of stormwater in new developments (infrastructure/residential)
- Developer contributions to off-site treatments
- Ownership and responsibility of watercourses (rivers, dams, banks, levees)
- Impact on existing residences of infill developments
- Priorities across Council boundaries and upstream, downstream priorities
- Demand for open space (water storage vs recreational use)
- Major water bodies, i.e. Dry Creek/River Torrens require own MPs
- Clear levels of service around floor protection
- Multi-benefit outcomes
- Reuse and water cycle management
- Incentives for on-site stormwater management
- Increase awareness of stormwater as an asset at all levels
- Clear and simple process for managing property rights
- Integrated water sensitive urban design
- Climate adaptive stormwater management
- Environmental protection and enhancement
- Risk is best managed by the party best able to
- Sustainable and equitable outcomes across catchments
- Based on good historical precedent
- Takes water quality management seriously
- Committed funding (Federal and State)
- Federal and State policy and leadership
- Community education via engagement
- Development act vs plan and stormwater
- Is there a State strategy?!
- Local and State Government collaboration
- Highly effective wetland management
- WSUD incorporated to all roads
- Roles and responsibilities

- Ownership of infrastructure
- Centralised management body
- Network infrastructure
- Risk based infrastructure plan
- Flood mapping – evidence
- Integrated flood map for metro area
- Community engagement
- Intra Council communication
- Predictable funding – long-term
- Offset and credit trading for developers
- Development control
- Monitor effectiveness of the infrastructure
- Regional/catchment based
- Sustainable balancing of discharge/abstraction? (*unclear handwriting*)
- Funded by a user pays system
- No nuisance flooding? (*unclear handwriting*)
- Adequate catchment modelling
- Integrated Water Catchment Management Plan Framework
- Fair and equitable standard across State/catchment
- Property cleaned and monitored regularly
- No blockages/CCTV
- Quality of water defined
- Funded by developers for new
- Fully treated – dischargeable/stored
- System to prioritise upgrades/repairs – strategic stormwater
- Clear objectives for long-term
- Integration into a catchment when developing new
- Acceptable service levels
- A framework for management.
- A clear/common language/structure
- Self-funding system
- Integrate WSUD/green infrastructure – industrial/commercial
- Drought management
- Appoint skilled workforce

## Activity 2 - How do we move towards our ideal system?

The following key actions were identified by participants to drive delivery in each of the key element areas identified in Activity 1. Other actions suggested are provided in the tables on the following pages.

### 1. Leadership

- Develop a separate framework and governance structure to oversee stormwater across the State including legislation and funding models

### 2. Centralised Management Body

- Update the business and strategic plan for Stormwater Management Authority and clarify the function/roles and responsibilities of the body
- Increase visibility of Stormwater Management Authority
- Conduct a needs analysis to better identify client needs
- LGA to advocate to the Stormwater Management Authority for improved outcomes for local government

### 3. Fair and Equitable Service Levels

- Regulate a set service level standard (e.g. 1 in 5) across all catchments
- Determine cost to bring all catchments/Council's up to that standard
- Funding allocation to be transparent and scaled/weighted based on catchment and population needs

### 4. State-wide Strategy

- Appoint a Director of Stormwater Strategy across the State
- Provide stronger technical input into planning (e.g. from DPTI)
- Increase collaboration with Department for Environment and Water and SA Water

### 5. Managed Community Expectations

- Create a school-based education program to lead generational change

### 6. Stormwater Needs to “Grow Up” and Regulatory Framework

- There is no need to reinvent the wheel. We can learn from best practice systems and processes around the world such as the United States of America user pays system
- Review the Water Industries Act

### 7. Dedicated and Adequate Funding

- Develop a prioritised and integrated co-funding strategy that is supported by integrated land use, stormwater and transport plans
- Learn from the funding model that is in place for transport infrastructure. This represents a good example of a functioning infrastructure funding model and is a “grown-up” system with a mature relationship across levels of Government
- Better integrate stormwater management into the 30 Year Plan for Greater Adelaide

The following section provides verbatim notes from the posters generated for each key element at each table at the workshop.

1. Key Element/Feature: **Leadership**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>• Could be wasting resources by duplicating work/actions.</li> <li>• Works aren't happening which are crucial to the system as people are unclear as to what works are required.</li> <li>• Community risk.</li> <li>• Fall prey to the squeaky wheel for priorities.</li> <li>• Reliant on a small pool of funding.</li> </ul>	<ul style="list-style-type: none"> <li>• Local Government does well in its catchments (not so well for holistic system) both for water quality and flood mitigation.</li> <li>• Local Government have been leading the way.</li> </ul>	<ul style="list-style-type: none"> <li>• Clear framework to clarify roles and responsibilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Separate framework and governance structure to oversee stormwater across the State and develop policy to govern stormwater and associated works.</li> <li>• Roles and responsibilities to be reflected in legislation and funding models.</li> <li>• Collaboration across levels of Government but driven by State.</li> <li>• Need to provide business case to justify why leadership is important (to State Government) in management of stormwater.</li> </ul>

## 2. Key Element/Feature: **Centralised Management Body**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>• Equality across boundaries.</li> <li>• Consider appropriate scales – to identify right solution.</li> <li>• Strategic and productive working relationship across jurisdictions.</li> <li>• Consistency.</li> <li>• Cost effective.</li> <li>• Better co-ordination.</li> <li>• Consistency in tools and approaches across rural and urban centres.</li> <li>• Achieve cost efficient and effective stormwater management across jurisdictions to minimise adverse impacts.</li> <li>• Single point of state-wide decision making and strategy setting.</li> </ul>	<ul style="list-style-type: none"> <li>• Defining minimum requirements for stormwater planning/action.</li> <li>• Funding opportunity.</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic direction across boundaries.</li> <li>• Prioritisation of planning/action investment.</li> <li>• Visibility.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop business plan, strategic direction – make available (needs to happen first).</li> <li>• Consider/undertake “needs analysis” to properly resource client needs.</li> <li>• Increasing presence/visibility, particularly in regional SA – roadshow.</li> <li>• Secure more funding to support priority and long-term works.</li> </ul>

**3. Key Element/Feature: Fair and Equitable Service Levels**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>• Generational and intergenerational equity.</li> <li>• Needs to be fair across all local Councils – governed by an unbiased framework.</li> <li>• We need to change the centralised approach of irrigating from the Murray River.</li> <li>• Deliver what community wants at the best possible cost.</li> <li>• Quantifiable conditions of developments that stipulate discharge values and other criteria.</li> <li>• Helps facilitate Councils to work together.</li> <li>• Quality checks of water quality and standards upstream and downstream.</li> </ul>	<ul style="list-style-type: none"> <li>• Asset Management Plan.</li> <li>• SWMP</li> <li>• These are linked in with a long-term cycle.</li> </ul>	<ul style="list-style-type: none"> <li>• Approve SWMPs by all Councils collectively.</li> <li>• Need stormwater regulation for pricing structure.</li> </ul>	<ul style="list-style-type: none"> <li>• Make State responsible for main water courses and Councils responsible for feeders. Allows chain of responsibilities to be passed on.</li> <li>• Develop catchments to perform under specific ARI conditions (1 in 5)</li> <li>• Regulation – pricing structure (user pay) need to consider who benefits and who pays.</li> <li>• Regs to set standard (1 in 5) – what is the cost to bring all Councils collectively to their standard.</li> <li>• How will this be funded?</li> <li>• Considered with catchment areas and population this system has to be transparent to all.</li> </ul>

## 4. Key Element/Feature: **State Wide Strategy**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>• Role/Responsibility               <ul style="list-style-type: none"> <li>&gt; Politically – State/Local</li> <li>&gt; At practitioner level</li> <li>&gt; (cross communication)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• SMA (Bd) – 2007 step in right direction, but unknown quantum of funding needed (catch up) not envisaged.</li> <li>• Protocols for stormwater management changing, i.e. originally stormwater to gulf, now WSUD.</li> </ul>	<ul style="list-style-type: none"> <li>• Leadership               <ul style="list-style-type: none"> <li>&gt; DPTI?</li> <li>&gt; DEW?</li> <li>&gt; Minister for Water – water quality? Stormwater X</li> <li>&gt; LGA</li> </ul> </li> <li>• Council boundary               <ul style="list-style-type: none"> <li>&gt; across boundary solutions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• No replacement of previous years' experience.               <ul style="list-style-type: none"> <li>&gt; Elevate DPTI to managerial/strategic level (in conjunction with tech level)</li> <li>&gt; Elevate DEW EO to Manager of stormwater – collaboration with SA Water</li> </ul> </li> <li>• Appoint a Director of stormwater – State level (strategy). GAP:               <ul style="list-style-type: none"> <li>&gt; Don Hogben (strategy)</li> <li>&gt; Graeme Brown (assets)</li> </ul> </li> </ul>

## 5. Key Element/Feature: **Managed Community Expectations**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>All sectors of our community need to value the purpose and benefits of a well-managed stormwater system.</li> <li>All sectors of our community need to understand their land use activities/behaviours and have a broader social/economic/environmental impact.</li> </ul>	<ul style="list-style-type: none"> <li>Provide flood mapping information verbally.</li> <li>SES Flood Safe Program.</li> <li>Visible WSUD elements, e.g. rain gardens.</li> <li>Some Council's emergency response to floor risk.</li> <li>Water re-use MAR Scheme.</li> </ul>	<ul style="list-style-type: none"> <li>Sharing floor risk information with community.</li> <li>Resolve accessibility issues re flood mapping.</li> <li>Community education – understanding of flood risk.</li> <li>Understanding how everyone contributes to flooding issues.</li> <li>Community does not understand the service levels associated with flood risk.</li> <li>Stormwater management plans – share these and how implemented and where.</li> <li>Compliance regime(s).</li> </ul>	<ul style="list-style-type: none"> <li>School-based education programs – flooding/water quality – what goes down the drain?</li> <li>Populate/promote State Government flood awareness website.</li> <li>Reactivate and reimagine past education initiatives (don't reinvent wheel).</li> <li>Media attention and recognition of risks associated with flooding and water quality.</li> <li>Interactive web page/map of SMP actions.</li> <li>Share Council risk profiles and costs of managing risks (scare people!)</li> </ul>

6. Key Element/Feature: **Stormwater needs to “Grow Up” and Regulatory Framework**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>• Industry maturity.</li> <li>• Stormwater to be taken seriously.</li> <li>• Prioritise investment.</li> <li>• Regulation can clarify standards.</li> <li>• Cultural change to the system.</li> <li>• Dedicated funding model linked to a state-wide strategy (similar to RTR).</li> </ul>	<ul style="list-style-type: none"> <li>• Current state of system is quite disconnected so not much working well regarding this key element.</li> <li>• Individual practitioners at their own Councils “doing their best”.</li> <li>• Industry champions (organisations or individuals) who can be used as a resource.</li> </ul>	<ul style="list-style-type: none"> <li>• State body to co-ordinate Council efforts.</li> <li>• A driving force bigger than one Council.</li> <li>• A catchment driven approach.</li> <li>• More development control e.g. mandated principles including water quality and reuse.</li> <li>• Legislate stormwater management requirements.</li> <li>• Climate change considerations.</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge is power – empower people with more information.               <ul style="list-style-type: none"> <li>&gt; Gather base level, e.g. SMP</li> <li>&gt; compare to ideal standard (technical)</li> <li>&gt; cost differential</li> <li>&gt; value of existing systems</li> <li>&gt; collate knowledge base from academics</li> </ul> </li> <li>• Legislate water quality improvement and reuse.</li> <li>• Implement at source solutions.</li> <li>• Don't reinvent the wheel – research and analysis existing systems and programs.</li> </ul>

## 7. Key Element/Feature: **Dedicated and Adequate Funding**

Why is this element/feature important to a well-functioning stormwater management system?	What works now in relation to this key element/feature?	What needs improving in relation to this key element/feature?	What specific actions could be taken to work towards better delivering this key feature/element?
<ul style="list-style-type: none"> <li>To avoid poor stormwater management and inequitable outcomes resulting.</li> </ul>	<ul style="list-style-type: none"> <li>Good practice evolving around large-scale development paying for stormwater (deeds).</li> <li>Asset management practice (renewals!) is improving.</li> </ul>	<ul style="list-style-type: none"> <li>State and Commonwealth economic benefits need recognising via funding.</li> <li>Legislative change needed to align funding and risk.</li> </ul>	<ul style="list-style-type: none"> <li>Better communication between all levels of government:               <ul style="list-style-type: none"> <li>&gt; Sharing of responsibilities.</li> <li>&gt; Legislative framework supporting funding and risk management.</li> </ul> </li> <li>SMA funds available to fund State share of SMP's.</li> <li>Develop a prioritised and integrated co-funding (and/or financing) strategy, i.e. integrated land use, stormwater management and transport plans</li> </ul>



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