

Drainage for Liveability



Government of **Western Australia**
Department of **Water**



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Summary

What's liveability got to do with drainage?

Water Corp/Dept of Water new approach to drainage

What does all this mean for our stakeholders?



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Liveability...

...all of those things that make a place somewhere people want to live, communities flourish and businesses choose to invest.

To be long lasting and resilient, a liveable city or region must consider the needs of future generations and use systems thinking to understand and respond to shocks and long-term change.

From: Water Services Association of Australia (WSAA) Occasional paper no 31- Liveability indicators for the urban water industry.



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The Water Corporation's role in supporting liveability



“To me liveability is absolutely fundamental to what we do at the Water Corporation – it’s right there in our purpose ‘sustainable management of water services to make WA a great place to live and invest’.

It’s about doing core business better, linking the water cycle together, understanding our customer and stakeholder needs and using this insight to drive our decision-making, and leveraging our assets to make them even more useful to the community”

Ashley Vincent, A/CEO

4 April 2017



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Drainage as a “wicked problem”

- Multiple agencies responsible for different aspects
- No clear link between land planning decisions and drainage water quality
- Legacy contamination issues
- Combination of open channels and closed pipes
- Groundwater and surface water
- Not a “closed” system



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Community perspective

(The West Australian 10th April 2017)

minority" as claimed. were many areas of on and agreement, g the ways that pes can be activated, rtance of green spaces, rks and deep soil d the need to clearly elopment areas, g those suitable for , for the benefit of the mmunity.

y of South Perth and yers invested in a forum aimed at good development for its community. on't railroad the y diminishing what ved, in preference for and antagonistic rsus "us" assessment ble outcomes.

secretary, City of South ents Association Inc

rniers smear ations to *The West* 's Andrew Bolt for utforward response to

latest attempt to siphon ill-gotten gains into his own pockets.

Will Four Corners tackle him? Don't hold your breath.
R. L. Pass, The Vines

Building on flood plains

What has happened in shire offices and the departments of land that so many homes and business are permitted to build on flood plains?

Just look at the destruction of property that has taken place, this year alone, especially in Queensland.

It is costing this country billions of dollars of taxpayers money, not to mention despair of those affected.

This insane inability of people to have a little bit of common sense and not build in these areas never ceases to amaze me. Then they ask for a handout. It has to stop.
Eric Good, Huntingdale

Telstra data trap?

data for overseas
Ian Campbell, Mosma

National servi

The West Australian Sunday Times are congratulated for and promotion of 2017 collection, i.e. Anzacs medals of

However, I expr that it appears the of National Servic Medal has been ov

The award comr the 50th anniversa introduction of po II national service.

Today, the two p post-World War II service are remem significant and val Australia's history development as a n

Indeed, during th period that covered schemes, 197 nation servicemen paid th sacrifice for their c while approximatel



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Opportunities for enhanced outcomes from drainage assets

Identified as an area to improve outcomes, drainage has been a focus for collaboration between the Water Corporation and Department of Water over the last 18 months –

Opportunities for Water Portfolio (OWP) Project



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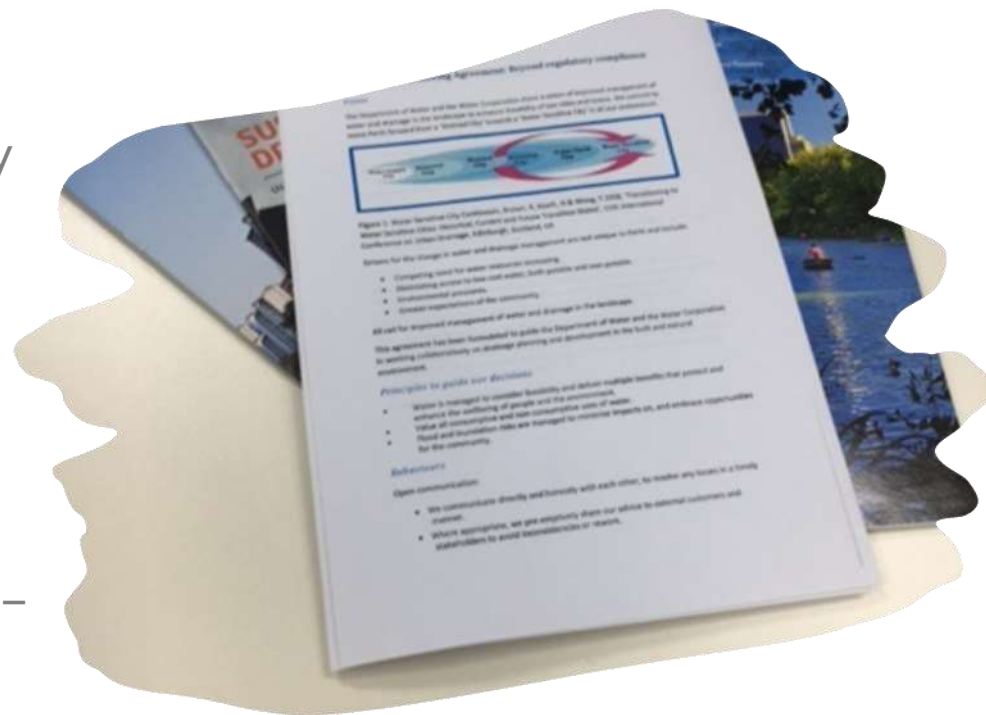


Drainage Partnering Agreement - Beyond regulatory compliance

Based on Alliance management principles of shared responsibility for outcomes.

- Shared vision
- Principles
- Behaviours

“Beyond regulatory compliance” –
Sue Murphy



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What does this mean?

- Greater alignment of advice from Water Corporation and the Department of Water.
- Recognition of the greater role of Water Corporation “beyond regulatory compliance” in contributing to liveability outcomes.
- A proactive approach to stakeholders and opportunities for improved drainage outcomes.



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Living/urban streams: a joint approach

Drainage for Liveability Fact Sheet

Living Streams in Water Corporation assets

Purpose

This fact sheet, jointly developed by the Department of Water (DOW) and Water Corporation (WC), provides basic technical information required to design and construct Living Streams in Water Corporation assets (new or enhanced, rural or urban). It is to be used as guidance with each situation considered on its merits. Other drain owners are encouraged to use this as a basis for design however other documents may also be relevant and inform design.

Objectives

Living Streams should be created as multiple use corridors to achieve a wide range of benefits to the community and the environment. The objectives of Living Streams include:

- Flood control and conveyance
- Erosion and sediment control
- Establishing healthy ecosystems
- Creating diverse habitat
- Improving water quality

(e.g. public open space, roadways and road reserves, waterways, drainage reserves).

- Set aside sufficient land in the planning process to achieve these objectives.

Morphology

- Ensure that the morphology replicates a stable natural stream with a diversity of ecological habitats.

Vegetation

- Retain existing native vegetation where possible.
- Establish tree canopy at suitable width to shade the Living Stream and limit vegetation density within the channel.
- Establish understorey plantings outside the bankfull channel to enhance ecological benefits.
- Design and select vegetation in the minor flow channels appropriately (e.g. native sedges) to still allow conveyance and maintenance

- Provide appropriate maintenance access.
- Use vegetation and landscaping (in preference to structures and fences) where feasible to restrict access to hazardous areas.
- Provide recreational access to the water's edge where safe and beneficial to recreational activities.

Analysis and Design

Proposals for the construction of Living Streams are required to provide a comprehensive suite of documentation demonstrating the data collection, investigation, design and maintenance of the Living Stream.

- Engineering plans, sections, details and specifications.
- Planting design drawings, cross sections, species and schedules, vegetation community descriptions and photos.
- Hydrologic and hydraulic modelling

- Management agreement between the Water Corporation and the Local Authority
- Design Report outlining the investigation and design methodology including critical aspects governing the final design.



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Official launch of the Drainage for Liveability Program

<https://www.watercorporation.com.au/drainageprogram>

Drainage to make most of green spaces

A NEW drainage basin project to make better use of public green spaces was launched in Morley last week.

The State Government and the Water Corporation collaborated to form a Drainage for Liveability Program, with the first project being a 'pop up' park proposed by the City of Bayswater off Russell Street.

Water Minister Mia Davies said the department would provide urbanised communi-

ties with more recreational areas.

"While drains and drainage basins serve a vital purpose in protecting our homes and businesses from flooding, we should make the most of their capacity to provide attractive green spaces for our communities," she said.

"Opening up areas previously inaccessible to the community is possible by developing drains into appealing local

assets that make our communities better places to live.

"Russell Street Pop Up Park will be a temporary use of open space while the City of Bayswater investigates a longer-term plan for a network of green spaces, linking key parts of the suburb including the bus port, shopping centre and residential areas."

The other area considered was the Wellington Road Compensation Basin in Yokine.



Department of Water's Tim Sparks, Colin Holt MLC, Michael Sutherland MIA, Water Corporation's Suzanne Brown and Bayswater Mayor Barry McKenna at the Russell Street basin.



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Drainage for Liveability Program

- We are looking for ways to facilitate these proposals
- When considering proposals, identify and manage risks
- Public safety, occupier liability, maintenance requirements and operation licence conditions will continue to be met
- Management agreements will be drafted to address these



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Russell St Compensating Basin, Morley



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Wellington Pde, Yokine



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What's possible



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What next?

- Publication of joint WC/DoW guidance on living streams – aimed for workable, pragmatic and consistent advice;
- Drainage Leadership Group to meet and prioritise other joint guidance notes;
- Invitation to local authorities to submit proposals for Drainage for Liveability Program
- Russell St Morley Comp Basin
- Wellington Pde Yokine Comp Basin
- Morley Galleria redevelopment
- Wungong living stream



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Questions?



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