



Department of Climate Change, Energy, the Environment and Water



NSW Integrated Water Cycle Management Framework

Focus on stormwater integration

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Acknowledgement of Country

The Department of Climate Change, Energy, the Environment and Water acknowledges that it stands on Aboriginal land.

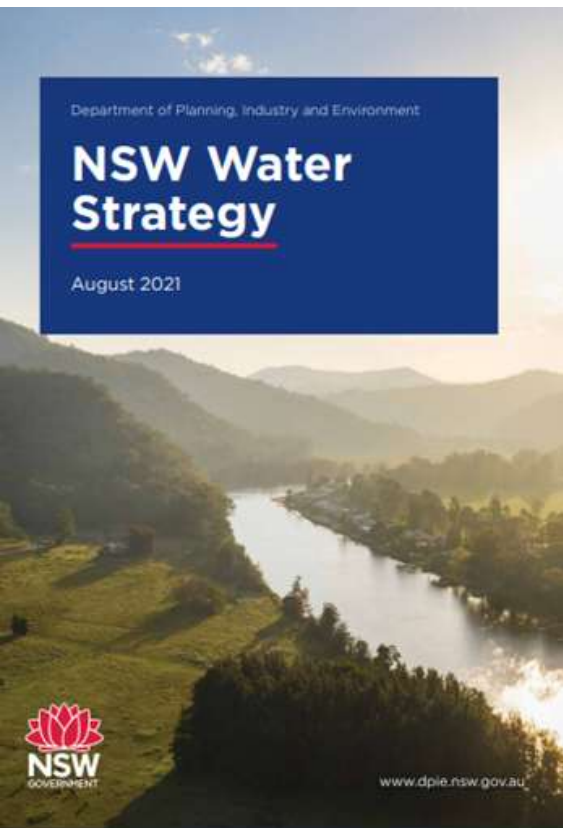
We acknowledge the Traditional Custodians of the land and water, and we show our respect for Elders past, present and emerging.

We do this through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Artist and designer Nikita Ridgeway from Aboriginal design agency – Boss Lady Creative Designs, created the People and Community symbol.

1. Why is there a new ‘NSW IWCM Framework’?
2. IWCM Framework overview
3. Stormwater integration
4. Self-evaluation tool overview
5. How to use the framework and the tool?

IWCM: NSW Government policy position



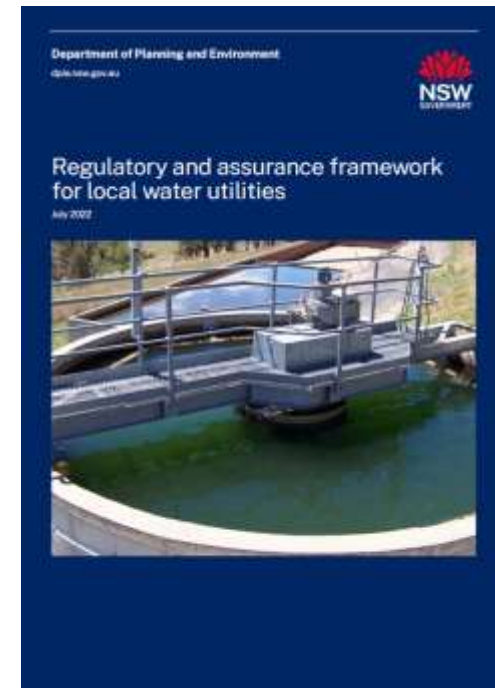
Priority 6: Support resilient, prosperous and liveable cities and towns

Action 6.9: Promote and improve IWCM

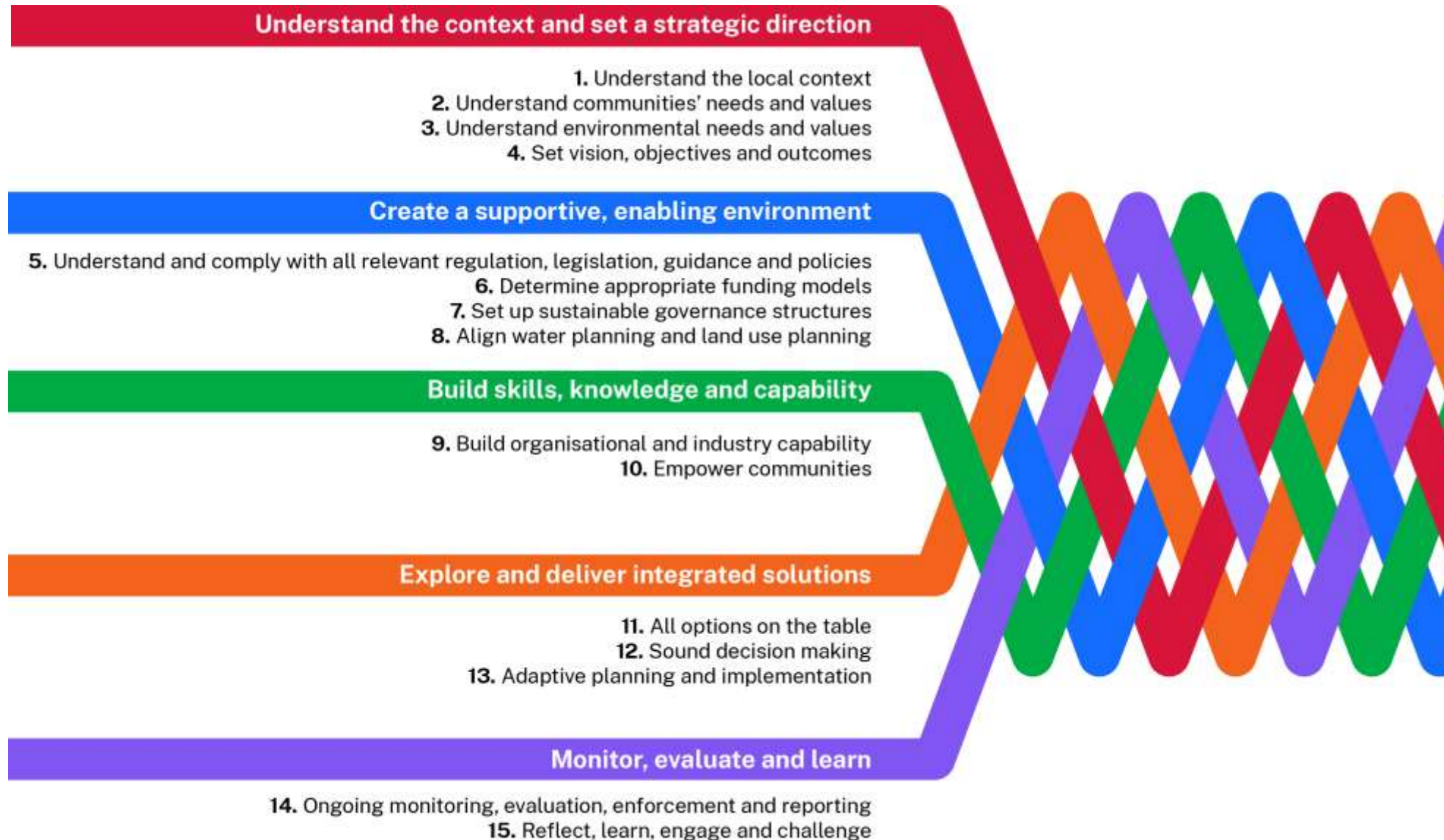
- Promote IWCM through the NSW planning system and through water management arrangements.
- Develop and implement all regional and metropolitan water strategies based on an IWCM approach.
- **Develop a statewide IWCM Framework.**

The Regulatory and Assurance Framework for Local Water Utilities:

- Promote the principles of IWCM to support sustainability and liveability
- Promote IWCM: one of 12 strategic planning outcomes.



NSW IWCM Framework: 5 stages, 15 steps



Steps, key questions, tasks, IWCM themes.

Stage 1 - Understand the context and set a strategic direction

Understand the local context and community needs and values; and set the vision, objectives and outcomes for the IWCM project

Step	Key tasks	Key IWCM themes
3. Understand environmental needs and values What are the needs of the environment and what environment are you seeking to protect?	<ul style="list-style-type: none">• Consider the natural resources and ecosystems that exist in the IWCM project area.• Identify the services these natural resources and ecosystems provide.• Partner with Aboriginal peoples (Regional Aboriginal Water Committees, NSW Aboriginal peaks and community controlled organisations, other Aboriginal water-interest groups, and/or Aboriginal communities) to build environmental understanding. Use culturally safe mechanisms to allow knowledge sharing to take place, so that the exchange respects Aboriginal	Environmental health Sustainable ecological functioning Aboriginal partnerships Equitable access to environmental services

Stormwater integration

Understand the context and set a strategic direction

1. Understand the local context
2. Understand communities' needs and values
3. Understand environmental needs and values
4. Set vision, objectives and outcomes

Create a supportive, enabling environment

5. Understand and comply with all relevant regulation, legislation, guidance and policies
6. Determine appropriate funding models
7. Set up sustainable governance structures
8. Align water planning and land use planning

Build skills, knowledge and capability

9. Build organisational and industry capability
10. Empower communities

Explore and deliver integrated solutions

11. All options on the table
12. Sound decision making
13. Adaptive planning and implementation

Monitor, evaluate and learn

14. Ongoing monitoring, evaluation, enforcement and reporting
15. Reflect, learn, engage and challenge

- environmental impacts associated with runoff (**Step 1**)
- benefits associated with stormwater runoff management (**Step 3**)
- regulatory setting for stormwater and other water services integration (**Step 5**)
- overcoming siloed water cycle governance (**Step 7**)
- stormwater targets into development controls (**Step 8**)
- centralised and decentralised, structural and non-structural solutions (**Step 11**)
- leveraging lessons learnt from demonstration projects (**Step 13 & Step 15**)

Self-evaluation tool



The NSW Integrated Water Cycle Management Framework Self-evaluation tool

About the tool

The NSW Integrated Water Cycle Management (IWCM) Framework is a best-practice guide to developing and delivering IWCM projects. It provides clear steps for organisations seeking to adopt an IWCM approach to the design, delivery and review of new projects, programs and strategic planning processes. The IWCM Framework is specifically designed to be generic so that it can be applied in a range of circumstances and at a range of spatial levels.

Government, land use planners, water utilities, councils, developers, businesses and the community can use the Framework to work together to better plan, manage and deliver water-resilient cities and towns across NSW.

How to use this self-evaluation tool

The IWCM Framework outlines the main features of IWCM when it is fully developed. When starting, an organisation might not be able to do everything in the framework. How well an organisation can use IWCM depends on its resources and skills. IWCM is seen as an ideal goal - over time, as organisations gain experience, they will be able to take on more tasks and themes.

Having an idea of the 'full picture' of tasks should, however, be useful for a project at any stage. It allows organisations to decide which actions to take on now and which ones they might leave for the future.

This self-evaluation tool translates the framework's tasks into a set of evaluation criteria. The tool can be used by organisations to:

- measure their progress towards achieving IWCM outcomes
- align their project with an IWCM approach
- identify areas of improvement where more support or resources may be required.

Use the 'evaluation' tab to self-rate your project or organisation on each of the evaluative criteria listed. To facilitate the process of learning it is useful to also record your justification (why you think the project/organisation rates this way) and nominate areas for improvement. You can use the evaluation tool to

A record of how the project addresses IWCM criteria

Self-ranking against the evaluation criteria

Areas and actions for improvement

Step	Evaluation criteria	Justification How do you know you meet this criterion? (evidence)	Self-ranking Choose from drop-down menu	Recommended action How can you improve?
1. Understand the local context What are the unique risks and challenges in the local geographic and operating context?	The geographic area of interest to the project is identified, the project boundary is mapped, and the hydrological and other natural resource impacts in and out of that boundary are assessed.	project plan + impact assessment conducted	Current best practice	
	The full range of IWCM-related issues evident in the project area and in its broader context are thoroughly defined and considered.	identified issues in the community engagement workshop runoff from paved surfaces, it impacts downstream	Good practice	
	The unique challenges and risks relevant to the local context are considered and well-understood.	identified risks (desk research) who will maintain the wetland?	Business as usual (BAU)	
	The pressures and drivers of these IWCM-related issues are considered and well-understood.	identified issues and pressures in the community engagement workshop: 1. pollution of the waterway (community wants it to be swimmable) 4	Good practice	
	Relevant data is collected that establishes an evidence-based understanding across all these issues and risks i.e. place-based knowledge is well-established and evidence-based.	We haven't yet collected data to support this	Not done	Water samples to be collected from the waterway in June
2. Understand communities' needs and values What are the communities' needs and values for the place/ area of interest?	The communities relevant to the IWCM project area are identified	not done yet	Not done	
	A comprehensive and inclusive range of community representatives are engaged with	not done yet	Not done	
	The needs and values of the community are identified via an effective engagement process and are well understood.	not done yet	Not done	

Self evaluation tool summary: Example

	% of criteria met under each step (in each rating category)	Current best practice	Good practice	Business as usual (BAU)	Not done	Not applicable
Stage 1	1. Understand the local context	67%	33%	0%	0%	0%
	2. Understand communities' needs and values	25%	63%	0%	13%	0%
	3. Understand environmental needs and values	0%	57%	43%	0%	0%
	4. Set vision, objectives and outcomes	22%	56%	22%	0%	0%
Stage 2	5. Understand and comply with all relevant regulation, legislation, guidance and policies	0%	100%	0%	0%	0%
	6. Determine appropriate funding models	0%	40%	60%	0%	0%
	7. Set up sustainable governance structures	0%	13%	25%	63%	0%
	8. Align water planning and land use planning	0%	0%	57%	14%	29%
Stage 3	9. Build organisational and industry capability	0%	13%	50%	38%	0%
	10. Empower communities	0%	29%	71%	0%	0%
Stage 4	11. All options on the table	57%	43%	0%	0%	0%
	12. Sound decision making	0%	56%	44%	0%	0%
	13. Adaptive planning and implementation	0%	40%	40%	20%	0%
Stage 5	14. Ongoing monitoring, evaluation, enforcement and reporting	0%	14%	43%	43%	0%
	15. Reflect, learn, engage and challenge	0%	0%	57%	43%	0%

How can the Framework be used to facilitate better integration of stormwater?

Who?	How?
Planners	<p>Think about stormwater early in the project cycle.</p> <p>Consider stormwater use and management in land use planning processes.</p>
Water utilities	<p>Apply whole of water cycle thinking.</p> <p>Embed stormwater into water planning.</p> <p>Consider stormwater benefits, options and outcomes in water servicing decisions.</p>
Community	<p>Hold developers accountable to implement an IWCM approach and achieve urban amenity benefits.</p> <p>Hold developers, local government, regulators and private owners accountable to deliver stormwater benefits and outcomes in the long-term (not just at project build/ transfer/ sale).</p> <p>Improve stormwater literacy.</p>
Consultants & developers	<p>Apply the IWCM Framework as a best-practice guide to water project delivery (e.g. Hold them accountable to apply the IWCM Framework by listing it as a reference in procurement documents).</p> <p>Apply the tool and use it to demonstrate stormwater benefits and outcomes.</p>
Local government	<p>Identify and break down governance and coordination barriers to effective stormwater integration.</p> <p>Integrate stormwater into Council's IP&R Framework planning processes.</p> <p>Maintain local government-owned WSUD assets. Ensure private owners maintain WSUD assets (e.g. through compliance mechanisms).</p>

Find out more



The screenshot shows a web browser window with the URL <https://water.dpie.nsw.gov.au/our-work/plans-and-strategies/integrated-water-cycle-management>. The page header includes the NSW Government logo and the word "Water". A navigation menu contains "About us", "Our work", "Have your say", "News", and "Contact us". The main content area features a large blue box with the title "Integrated Water Cycle Management (IWCM)" and a sub-headline: "IWCM is a best-practice approach to water management that coordinates management of water, land, infrastructure and related resources." To the right of the text is a photograph of a river with stone stepping stones and people walking across it.

On this page

[About IWCM](#)

[The NSW IWCM Framework](#)

[The IWCM Framework in detail](#)

[Transitioning to IWCM](#)

[Frequently asked questions](#)

[Relevant policies and further reading](#)

Diagram

The IWCM Framework consists of 5 stages and 15 steps with tasks and themes.

[Download a diagram of the framework \(JPG, 1,100KB\)](#)



Framework

Complete framework and guidelines on how to best use it.

[Download the Framework \(PDF, 2,910KB\)](#)



Self-evaluation tool

The excel-based self-evaluation tool which translates the IWCM Framework's tasks into a set of evaluation criteria.

[Download the Self-evaluation tool \(XLS, 449KB\)](#)



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