

# Urban Water Cycle

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# Urban Water Cycle Policy



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Policy owner	Director Infrastructure
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Legislative amendments	None
Relevant strategic direction	Protected and Enhanced Environment
Relevant legislation/codes (reference to specific sections)	<i>Water Management Act 2000, Sections 5, 26, 27, 29, 30, 32, 33 &amp; 34.</i> <i>Environment Protection and Biodiversity Conservation Act 1999, Section 3A</i> <i>Local Government Act 1993 (NSW), Sections 36E, 36K, 36M, 59A &amp; 733.</i> Newcastle City Council Local Environment Plan 2012, Section 8.3 NSW Government Floodplain Development Manual 2005
Related policies/documents	Newcastle Community Strategic Plan (Revised 2013) Newcastle Environment Management Strategy (2013) Newcastle Development Control Plan (Revised 2015) Lower Hunter Water Management Plan (Hunter Water 2014) Asset Management Policy (2016) Carbon and Water Management Policy (2013) Newcastle City-Wide Floodplain Risk Management Plan (2012)
Related forms	Nil
Required on website	Yes
Authorisations	Nil

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## Part A Preliminary

### 1 What is the Urban Water Cycle?

- 1.1 Newcastle has a network of pipes, channels and waterways that move water from place to place:
  - 1.1.1 Water mains transport drinking water to our homes and businesses
  - 1.1.2 Sewer mains carry dirty water to sewage treatment plants
  - 1.1.3 Stormwater drains carry rainwater, running off our urban areas, into creeks, estuaries, wetlands, Hunter River and beaches
- 1.2 This journey of water, from being collected in our drinking water catchments and falling on our urban catchments and then returning to nature, is called the urban water cycle.
- 1.3 Newcastle's urban water cycle provides essential potable water, drainage and wastewater treatment services that sustain our population in good health. On a daily basis Novocastrians rely on the urban water cycle to provide:
  - 1.3.1 clean water to drink, cook and clean,
  - 1.3.2 other sources of water that are fit for purpose for irrigation of our parks and sports grounds and use in our industry,
  - 1.3.3 wastewater management that does not result in human health or environmental harm,
  - 1.3.4 safe recreation spaces and healthy aquatic ecosystems that make Newcastle a liveable city defined by its clean creeks, wetlands, beaches and waterways.
- 1.4 Newcastle is a Waterway City. Its development has been shaped by its natural waterways, internationally significant wetlands, the Hunter River estuary, economically valuable harbour and beautiful beaches. Much of Newcastle was developed on low lying land that was reclaimed by draining "swamps" and channelizing waterways.
- 1.5 The legacy of past drainage practice presents Council, our agency partners and residents with a challenging opportunity to rehabilitate degraded watercourses and to reduce and manage flood risk. Many of Council's drainage assets and Hunter Water's open channels are over 50 years old and will need replacement in future to meet industry standards.
- 1.6 Climate change also presents a new challenge for the core functions of Council relating to the urban water cycle. Storms and drought are likely to increase in severity and frequency, sea levels are predicted to rise and so are average temperatures. This may place Council's infrastructure under greater stress and increase the severity and frequency of flooding.
- 1.7 Newcastle's many beautiful waterways present a fantastic opportunity and contribute significantly to the economy through passive recreation, tourism and by attracting new development that now seeks to be located as close as possible to the water.

## 2 Purpose

- 2.1 The purpose of the Urban Water Cycle Policy (the Policy) is to:
  - 2.1.1 Provide a cohesive, contemporary policy incorporating Flood and Urban Water Cycle management principles in the absence of clear legislative guidelines;
  - 2.1.2 Give a clear vision and principles that provide direction to Council's service delivery;
  - 2.1.3 Develop an Implementation Framework to underpin the vision of the Newcastle Community Strategic Plan to sustain Newcastle as a Liveable City with a Protected and Enhanced Environment. The Implementation Framework shall ensure that the operations of Council are carried out for the benefit of the Urban Water Cycle and deliver essential water services to Newcastle residents. The framework will aim to build Council capacity and strengthen relationships with Council's partners; and across various community and business sectors.
  - 2.1.4 Facilitate the development of asset management frameworks that provide for the built and natural infrastructure elements of the urban water cycle and which will enable an inclusive, integrated, active ownership and valuation model for our water cycle assets.

## 3 Scope

This Policy Applies to:

- 3.1 Any aspect of the urban water cycle that Council is legally responsible for managing including:
  - 3.1.1 The quality, quantity and frequency of stormwater discharge from an existing or proposed development (both public and private) including stormwater discharged from roads, buildings, open spaces and any other areas or types of development;
  - 3.1.2 Beaches, coastal zones, groundwater, streams, creeks, rivers, estuaries, wetlands, waterfront land, floodplains and their catchments;
  - 3.1.3 Flood planning and management initiatives in accordance with Section 733(5) of the Local Government Act 1993;
  - 3.1.4 Alternative sources of water such as groundwater, rainwater and stormwater that can be re-used if they are fit for purpose.
- 3.2 Relationships with key stakeholders such as Hunter Water and Hunter Local Land Services.
- 3.3 All Council staff with a responsibility for administering any aspect of the water cycle including planning and development, design, adoption, operation, investigation, compliance and management of water cycle assets.

## 4 Principles

- 4.1 In order to realise the vision of the Community Strategic Plan through working with the Urban Water Cycle Council will:
  - 4.1.1 Enhance the Environment for current and future generations through continuous improvement of water quality in receiving waterways. Healthy, resilient aquatic environments will preserve our highly valued opportunities to play, recreate, swim, surf and fish within our recreational waterways and beaches.
  - 4.1.2 Protect Communities and Property by reducing flood risk for communities and property in accordance with the relevant legislation and regulations.
  - 4.1.3 Protect wetlands and natural waterways with a multidisciplinary, systems approach to management, planning and decision making that is informed by environmental flows. For example, by managing the frequency (spells and duration of flows) and volume of runoff; peak flows and waterway stability.
  - 4.1.4 Develop an Implementation Framework to guide the Water Working Group of Council. The group shall foster an organisational culture of collaboration, innovative problem solving and inspired leadership to reduce the life cycle costs of water cycle assets and increasing the community's valuation and enjoyment of those assets.
  - 4.1.5 Prepare service delivery plans to guide the planning, design and renewal of urban water cycle assets. This will be informed by the development of service levels for urban water cycle assets (natural and built) in accordance with Council's most current version of its Asset Management Policy.
  - 4.1.6 Work towards valuing stormwater as a resource and not a nuisance that is drained to the nearest waterway.