

Defining ‘needs of the environment’ during extended dry events

‘Needs of the environment’ is a term used in the Water Management Act 2000 in relation to sharing water and making available water determinations during extreme events or severe water shortages.

This fact sheet:

- outlines the legislative and policy background of the needs of the environment during extreme dry periods
- provides guidance on how the government may consider and address the needs of the environment during extreme dry periods.

Legislative background

Water management principles set out in the *Water Management Act 2000* provide that the sharing of water from a water source:

- must protect the water source and its dependent ecosystems
- must protect basic landholder rights

The Act also sets out that the extraction of water must not prejudice the protection of the water source and basic landholder rights.

To protect water sources, water sharing plans (WSP) set limits on water extractions and, in the regulated rivers, provide for environmental releases.

However, in extreme dry events or during severe water shortages, the Act allows for the suspension of rules in a WSP to provide communities with water (under sections 49A or 49B). When this occurs, the most essential community water needs are given highest priority (under section 60 of the Act), and the priority order for how water is allocated may change to:

1. domestic purposes and essential town services
2. needs of the environment, which has the next highest priority before other uses of water
3. stock purposes, commercial and industrial use authorised by a major utility or local water utility licence, water for electricity generation and High Security access licences.

In instances where there are critical risks to town water supplies during extreme drought conditions, the *Water Supply (Critical Needs) Act 2019* allows regulations to be made that may temporarily change these priorities to reallocate water in favour of declared towns or localities.

Policy background

The NSW Extreme Events Policy forms a framework for the management of a range of extreme events, including extended dry periods. This policy has a staged approach and suggests a range of measures that water managers can adopt as conditions deteriorate during drought.

In implementing the policy, the government must ensure it meets its obligations under the *Water Management Act*. This includes showing that it has considered the needs of the environment when allocating water to other uses, as provided by section 60 of the Act.

The Department of Planning, Industry and Environment has a number of mechanisms for managing water during extended dry periods. A WSP rule, or a number of rules, can be suspended to better share water. Alternatively, a temporary restriction on water extraction can be applied. The Water Supply (Critical Needs) Act includes other measures that may be taken.

The Critical Water Advisory Panel, set up under the NSW Extreme Events Policy, will inform the management approach taken by the department. The needs of the environment is one of the issues this panel, its Technical Advisory Group, and the valley-based fish technical advisory groups consider when providing advice. The department will also seek advice from environmental water advisory groups where environmental water is available for use.

In some instances, the needs of the environment may align with other high-priority needs, such as extending flows along a stretch of river with high ecological values at a favourable time for other water users. In other instances, these needs may not align, such as restarting flows along a river when there are high water quality risks. Where a conflict exists, the department will carefully weigh the benefits and risks and consider these in light of the priorities under the *Water Management Act* and the NSW Extreme Events Policy. The final decision is the responsibility of the Minister for Water or their delegate.

Environmental needs during extended dry periods

During extended dry periods, there are limited opportunities to provide water. In some instances only environmental needs such as maintaining refuge river pools, core wetland areas and seed banks in the soil may be possible. Where little or no water is available for release from storage, the sharing of water to provide for important needs, including the environment, is considered when any tributary inflows occur.

The ability to provide water to refuges and core habitats will be influenced by where natural flow events occur. Some habitats will likely be prioritised over others, depending on a range of factors.

Environmental needs will also vary as dry conditions persist, from needing water for survival and then for recovery as conditions improve. A flow event that provides for upstream system needs may be protected to meet the downstream needs as well.

The long-term environmental watering plans provide information on the hydrological needs of priority environmental values and assets—‘environmental water requirements’. The watering of refuge habitats allows individual native fish, aquatic vegetation, and other aquatic biota populations to survive, helping support their viability. This should help ecosystems maintain their basic function and resilience, providing the opportunity to recover once conditions improve.

Needs of the environment

During extended dry periods, meeting the needs of the environment may focus on the watering of habitats to avoid loss or irretrievable damage to environmental assets, including avoiding:

- loss of native species, communities and ecosystems
- irretrievable damage that would prevent the ecosystems from recovering.

Strategies to achieve these needs are to maintain the water quality, water level and food resources of refuge pool habitat and provide for the survival of core wetland vegetation and seedbanks.

Specific actions may include:

- maintaining river flow as part of the supply of 'critical human water needs'
- delivering active environmental water (held or planned) where available
- protecting tributary flows by stopping or limiting water extraction in the unregulated river tributaries as well as in the downstream regulated rivers and unregulated rivers (e.g. using temporary water restrictions)
- managing weirs and/or regulators to provide refuge habitat
- operating weirs and/or regulators, where it is possible, to avoid the turnover of stratified pools
- other event-specific strategies.

The department will select an operational strategy based on mitigating the highest ecological risks. In applying operational strategies, the risks to meeting other critical needs in the water source will be considered. This includes considering other ecosystem risks that could be exacerbated by providing water to reduce a specific environmental risk.

More Information

Find out more about extreme events at industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events

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