



Managing water shortages in NSW

Department of Industry – Water

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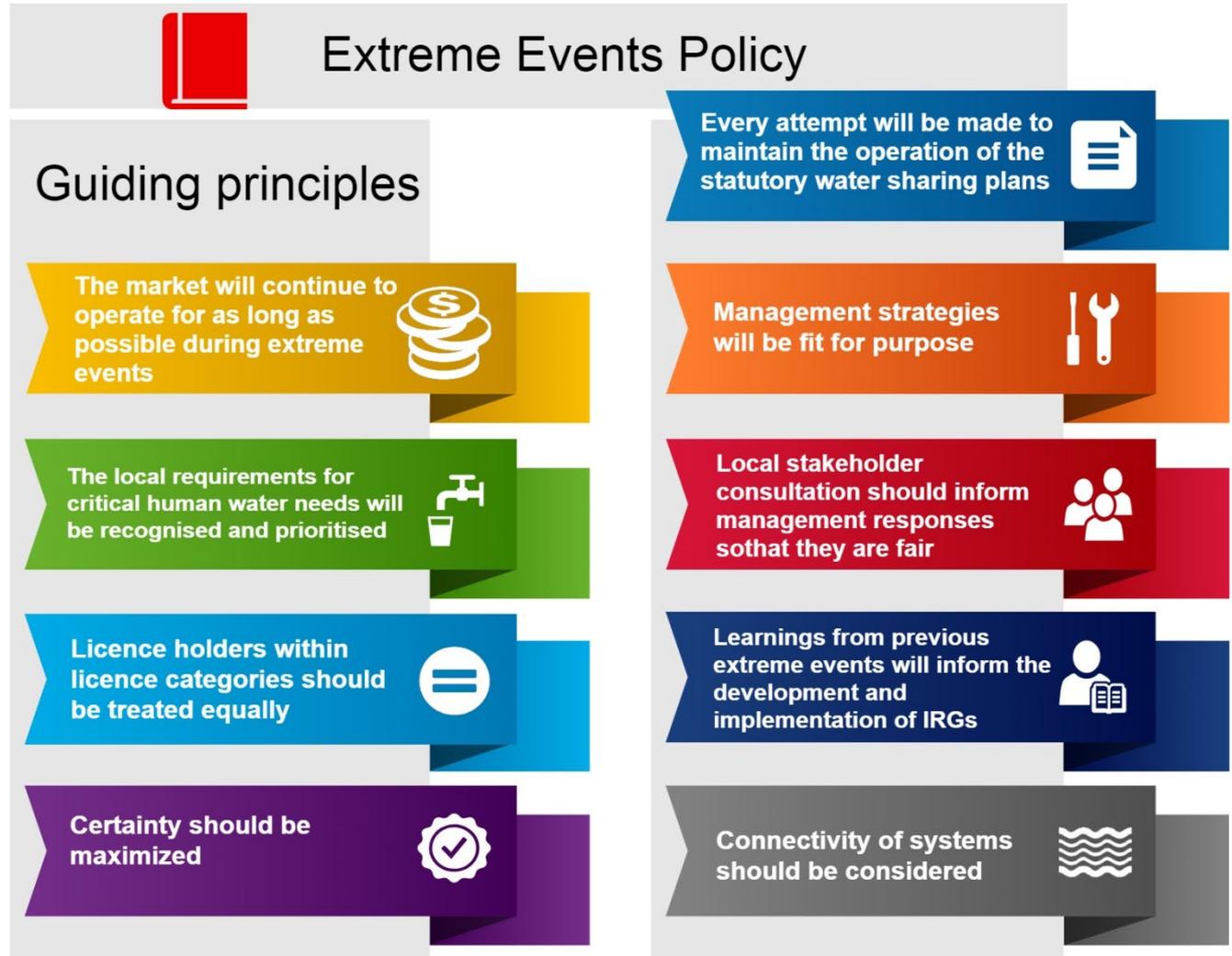
Extreme Events Policy – released October 2018

Extreme event definition:

- an extreme **dry period**
- an **extreme water quality** event (blackwater, salinity, water pollution, blue-green algae outbreak)
- an event leading to suspension of a water management plan in the last 50 years. e.g. actual or imminent **structural failure** of a State-owned water storage that may cause a severe water shortage



Extreme Events policy principles



Extreme event stages

The policy sets out the 4 stages for managing extreme events and the criteria

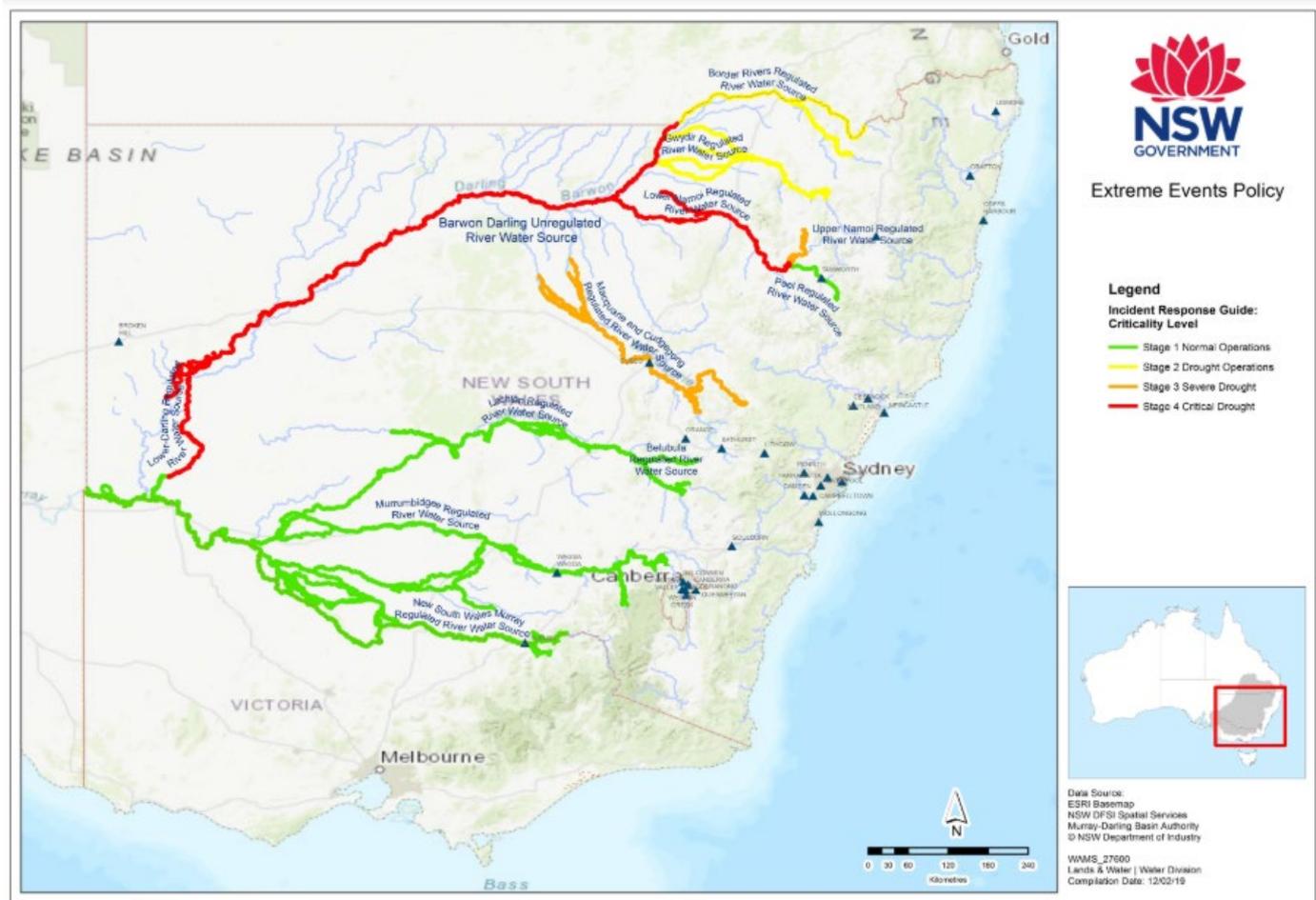
Stage		Water quantity	Water quality
Stage 1		Continue to deliver water as normal	Raw water can be treated with usual methods
Stage 2		Restrictions on water for general security licences Potential or actual impacts on groundwater users and groundwater dependent ecosystems Potential for aquifer subsidence	Minor adjustments to treat raw water
Stage 3		Restrictions on water for: · High priority licences · General security licences Unacceptable groundwater impacts	Major adjustments are needed to treat raw water
Stage 4		Water only available for critical human needs. Restrictions on: · Town water, stock and domestic · High priority licences · General security licences Risk to long term availability of the groundwater resources	Not possible to treat raw water with standard processes to meet health values and drinking guidelines Raw water is likely to remain untreatable over the longer term

Hierarchy of water priorities

Priority	Take/type of use
1	<ul style="list-style-type: none">• Critical human water needs:<ul style="list-style-type: none">- core human consumption requirements- non-human consumption requirements that a failure to meet would cause prohibitively high social, economic or national security costs
2	<ul style="list-style-type: none">• Needs of the environment
3	<ul style="list-style-type: none">• Stock• High security licences• Commercial and industrial activities authorised by local water utility• Water for electricity generation on a major utility licence• Conveyance in supplying water for any of these needs in this paragraph
4	<ul style="list-style-type: none">• General security & other

Summary of ss.49B & 60 of the *NSW Water Management Act 2000*

Water sources – drought status update



Incident Response Guide: Drought stage	
	Stage 1: Normal operations
	Stage 2: Emerging drought
	Stage 3: Severe drought
	Stage 4: Critical drought

Critical Water Advisory Panels

Membership :

- Department of Industry - Water
- WaterNSW
- Environment Protection Authority
- Department of Primary Industries – Agriculture
- Rural Assistance Authority
- Office of Environmental and Heritage
- Department of Primary Industries - Fisheries
- NSW Health – Water Unit
- Local Land Services

Role:

- Advise on appropriate management actions in extreme events

Operating:

- Northern Inland Regulated River Valleys CWAP
- Barwon-Darling/Lower Darling CWAP

Community Drought Sessions

- Purpose: to provide advice to the Government on the range of local views on possible drought management measures
- Identify community/user impacts of particular options
- This advice will feed into the next Critical Water Advisory Panel meetings to discuss management options for the next 6-18 months:
 - Barwon-Darling/Lower Darling CWAP: 19 February 2019
 - Northern CWAP: 21 February 2019

Home > Water Share

Water

Our department is responsible for surface and groundwater management including ensuring water security for NSW.

We ensure the equitable sharing of surface and groundwater resources and that water entitlements and allocations are secure and tradeable.

We manage NSW water resources through planning, policy and regulation, and we lead negotiations with the Commonwealth, including the Murray-Darling Basin Authority and other jurisdictions.



What we do

Find out about how water is managed, water legislation and policies, and fees and charges.



NSW Water Reform Action Plan

Find out how the NSW Government is committed to reforming water management in NSW.



Allocations & availability

A summary of water allocation, current conditions, outlook and supplementary water available.



Plans & programs

Access water sharing and water resource plans, and read about our current projects.



Licensing & trade

What you need to know about licences, approvals, compliance and landholder rights.



Water science & data

Where to find real time data and information about groundwater, ecology, modelling and more.



Water utilities



Basins & catchments

We play an important role in researching and

- ### Quick links
- [Water resource plans](#)
 - [Murray-Darling Basin](#)
 - [Snowy River](#)
 - [Safe and Secure Water Program](#)
 - [Training courses](#)
 - [Water science upgrade](#)
 - [Drought update](#)



Water resource plans currently on public exhibition

We invite you to provide feedback to ensure that the final policy and regulations are practical and can be implemented effectively.



Home > Water > Allocations & availability > Droughts & floods > Drought update Share

Drought update

Large areas of NSW are currently facing severe water shortages, with supply being limited to critical water needs, no new water allocations for most rural commercial users (particularly irrigators) and record low inflows to the major storages. As a result, a number of river valleys are being managed in accordance with the drought stages in the Extreme Events Policy.



Critical valleys in drought & key issues

River systems in a stage of drought and issues such as algal blooms and fish kills.



Allocations & availability

Summary of water Allocations and the latest Water Allocation Statements.



Temporary restrictions

Information on temporary water restrictions in NSW.



Drought information sessions

Come to one of our public drop-in sessions in early February.



Extreme events policy

Our principles for managing water resources under severe water shortages and the different water shortage stages.



Critical Water Advisory Panels

These advisory panels provide advice on managing critical water supplies during drought.



Drought assistance

Information on NSW Government assistance measures to support farmers impacted by drought conditions.



Dam storage & river levels

Use the Real-time Water Data web application to view dam storage levels across NSW.

Gwydir Incident Response Guide – toolkit options

Criticality level	Evidence Base for Criticality	Management Response Toolkit Options and Responsibility
<p>Stage 2</p> <p>Unable to deliver 100% of high-priority account water and maximum expected use of general security over the critical planning period, under normal river operations practices</p>	<p>Resource assessment worst-case scenario indicates potential future failure to supply water in accounts without any operational measures in the current water year to reduce transmission losses</p>	<p>NSW Department of Industry and WaterNSW:</p> <ul style="list-style-type: none"> • Maintain WSP rules for distribution of access • In consultation with water users and CWAP, progressively introduce measures to reduce transmission losses: • use of block deliveries commencing with the least efficient parts of the regulated system • ‘piggybacking’ replenishment flows and delivery of environmental water with other water orders and tributary inflows • shorten period of regulated releases for on-demand delivery • Schedule implementation of works and measures as appropriate under the Regional Water Strategy <p>LWUs:</p> <ul style="list-style-type: none"> • Accelerate implementation of the IWCM Strategy measures and commence readiness planning of Emergency/drought contingency response plan measures

Gwydir IRG – toolkit options

Stage 3

Only able to deliver restricted high priority demands and restricted remaining general security account water

Resource assessment worst-case planning scenarios indicates potential future failure to supply water in accounts without further contingency measures in the current water year

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP:

- Maintain and progressively increase system operation adjustments, e.g. block deliveries, 'piggybacking' replenishment flows, etc
- Restrict maximum take and/or carryover under GS access licences
- Restrict take under supplementary water access licences in the WRPA
- Restrict take under unregulated river access licences in the WRPA
- Limit the AWD for high priority access licences to <100% consistent with the priorities outlined in section 1
- Limit the take of stored ECA water, to provide for essential human needs in the event of a worsening of drought conditions (red below)
- Commence implementation of works and measures as appropriate under the Regional Water Strategy

LWUs:

- Continue accelerated implementation of the IWCM Strategy measures, commence implementation of demand-side emergency/drought contingency response plan measures, and continue readiness planning of supply-side emergency measures

Namoi IRG – toolkit options

Criticality level	Evidence Base for Criticality	Management Response Toolkit Options and Responsibility
<p>Stage 3</p> <p>Only able to deliver restricted high priority demands and restricted remaining general security account water</p>	<p>Resource assessment worst-case planning scenarios indicates potential future failure to supply water in accounts without further contingency measures in the current water year</p>	<p>NSW Dept of Industry & WaterNSW in consultation with water users & CWAP:</p> <ul style="list-style-type: none"> • Maintain and progressively increase system operation adjustments, e.g. block deliveries, ‘piggybacking’ replenishment flows, etc • Restrict maximum take and/or carryover under GS access licences • Restrict take under supplementary water access licences in the WRPA • Restrict take under unregulated river access licences in the WRPA • Limit the AWD for high priority access licences to <100% consistent with the priorities outlined in section 1 • Commence implementation of works and measures as appropriate under the Regional Water Strategy <p>LWUs:</p> <ul style="list-style-type: none"> • Continue accelerated implementation of the IWCM Strategy measures, commence implementation of demand-side emergency/drought contingency response plan measures, and continue readiness planning of supply-side emergency measures

Namoi IRG – toolkit options

Stage 4
Only able to deliver restricted TWS, S&D and other restricted high priority demands

Resource assessment worst case planning assessment indicates that normal demands for higher security licences cannot be met

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP, in addition to Stage 3 (orange) measures:

- Temporary structures (e.g. earth weirs/block banks to store water more efficiently in the deeper river channels).
- Suspension of access to water in accounts (in addition to measures in Stage 3):
- Prioritise water for regulated river (high security) access for permanent plantings over other regulated river (high security) access
- If necessary, restrict surface water take by LWUs for commercial purposes
- If necessary, restrict take under domestic and stock access licences for stock purposes licences in the WRPA.
- Restrictions on BLR access, either generally, or in accordance with Reasonable Use Guidelines (s.336 WM Act)
- Allow taking of tributary flows for BLR domestic purposes and LWU domestic and essential town services.
- Full implementation of works and measures as appropriate under the Regional Water Strategy

LWUs:

- Complete implementation of the IWCM Strategy, review and enhance implementation of demand-side emergency/drought contingency response plan and commence implementation of supply-side emergency measures

Barwon-Darling IRG – toolkit options

Criticality level	Evidence Base for Criticality	Management Response Toolkit Options and Responsibility
<p>Stage 3 Only able to deliver restricted high priority demands and restricted remaining general security account water</p>	<p>Resource assessment worst-case planning scenarios indicates potential future failure to supply water in accounts without further contingency measures in the current water year</p>	<p>NSW Dept of Industry & WaterNSW in consultation with water users & CWAP:</p> <ul style="list-style-type: none"> • Subject to agreement by the relevant LWU, restrict access for LWU with access to groundwater or other alternative supplies • As required to ensure flows can provide for higher priority access licences and priority environmental values: • Restrict take under unregulated river access licences • Restrict take under supplementary water access licences in the NSW Border Rivers, Gwydir, Namoi and Macquarie WRPAs, where such flows can usefully contribute to Barwon-Darling flows • Restrict take under unregulated river water access licences in downstream sections of the NSW Border Rivers, Gwydir and Macquarie WRPAs if these unregulated flows can usefully contribute to Barwon-Darling flows • If necessary, limit the AWD for high priority access licences to <100% consistent with the priorities outlined in section 1 • Commence implementation of works and measures as appropriate under the Regional Water Strategy <p>LWUs:</p> <ul style="list-style-type: none"> • Continue accelerated implementation of the IWCM Strategy measures, commence implementation of demand-side emergency/drought contingency response plan measures, and continue readiness planning of supply-side emergency measures

Barwon-Darling IRG – toolkit options

Stage 4
Only able to deliver restricted TWS, S&D and other restricted high priority demands

Resource assessment worst case planning assessment indicates that normal demands for higher security licences cannot be met

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP, in addition to Stage 3 (orange) measures:

- As required to ensure flows can provide for higher priority access licences and priority environmental values:
- Temporary structures (e.g. earth weirs/block banks to store water more efficiently in the deeper river channels)
- If necessary, restrict surface water take by LWUs for commercial purposes
- If necessary, restrict take under domestic and stock access licences for stock purposes in the WRPA
- Restrictions on BLR access, either generally, or in accordance with Reasonable Use Guidelines (s.336 WMA)
- Suspension of cl.17 of the NSW Border Rivers, Gwydir, or Namoi regulated river WSPs to make releases for BLR domestic purposes and LWU domestic and essential town services in the Barwon-Darling River
- Suspension of cl.14 of the Gwydir regulated river WSP, with temporary arrangements that allow stored ECA water to be used, if necessary for BLR domestic purposes and LWU domestic and essential town services in the Barwon-Darling River
- Full implementation of works and measures as appropriate under the Regional Water Strategy

LWUs:

- Complete implementation of the IWCM Strategy, review and enhance implementation of demand-side emergency/drought contingency response plan and commence implementation of supply-side emergency measures

Macquarie-Cudgegong IRG – toolkit options

Stage 3

Only able to deliver restricted high priority demands and restricted remaining general security account water

Resource assessment worst-case planning scenarios indicates potential future failure to supply water in accounts without further contingency measures in the current water year

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP:

- Maintain and progressively increase system operation adjustments, e.g. block deliveries, 'piggybacking' replenishment flows, etc
- Restrict maximum take and/or carryover under GS access licences
- Restrict take under supplementary water access licences in the WRPA
- Restrict take under unregulated river access licences in the WRPA
- Limit the AWD for high priority access licences to <100% consistent with the priorities outlined in section 1
- Limit the take of stored EWA water, to provide for essential human needs in the event of a worsening of drought conditions (red below)
- Subject to agreement by the relevant LWU, cease surface water supply for LWU with access to groundwater or other alternative supplies

LWUs:

- Continue accelerated implementation of the IWCM Strategy measures, commence implementation of demand-side emergency/drought contingency response plan measures, and continue readiness planning of supply-side emergency measures

Macquarie-Cudgegong IRG – toolkit options

Stage 4
Only able to deliver restricted TWS, S&D and other restricted high priority demands

Resource assessment worst case planning assessment indicates that normal demands for higher security licences cannot be met

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP, in addition to Stage 3 (orange) measures:

- Temporary structures (e.g. earth weirs/block banks to store water more efficiently in the deeper river channels).
- Suspension of access to water in accounts (in addition to measures in Stage 3):
- Limit the AWD for high priority access licences to supply critical needs only
- Prioritise water for regulated river (high security) access for permanent plantings over other regulated river (high security) access
- If necessary, restrict surface water take by LWUs for commercial purposes
- If necessary, restrict take under domestic and stock access licences for stock purposes licences in the WRPA.
- Restrictions on BLR access, either generally, or in accordance with Reasonable Use Guidelines (s.336 WM Act)
- Allow taking of tributary flows for BLR domestic purposes and LWU domestic and essential town services
- If required in emergency situations, make releases from upstream LWU storages to supply downstream restricted LWU and BLR requirements

LWUs:

- Complete implementation of the IWCM Strategy, review and enhance implementation of demand-side emergency/drought contingency response plan and commence implementation of supply-side emergency measures

Lower Darling IRG – toolkit options

Stage 4
Only able to deliver restricted TWS, S&D and other restricted high priority demands

Resource assessment worst case planning assessment indicates that normal demands for higher security licences cannot be met

NSW Dept of Industry & WaterNSW in consultation with water users & CWAP, in addition to Stage 3 (orange) measures:

- Pumping groundwater from the bed of Lake Menindee and the Talyawalka aquifer for Broken Hill when Copi Hollow supplies are exhausted, or too saline for Broken Hill's desalination plant

Note: this will not be necessary when the pipeline from the Murray River to Broken Hill comes into operation.

- Pulsed releases below Weir 32 if sufficient water in storage
- Restrict take under GS water access licences in the Lower Darling
- Full implementation of works and measures as appropriate under the Regional Water Strategy

LWUs:

- Complete implementation of the IWCM Strategy, review and enhance implementation of demand-side emergency response plan, and commence implementation of supply-side emergency measures