

Australian Capital Territory Narrative to accompany the 2017-18 s71 report

Summary

The ACT's annual rainfall was below average across the region for the second consecutive year. The below average rainfall has resulted in relatively low streamflows through most of the year as well as poor soil moisture conditions. On the 25 February, a cold front and thunderstorms brought heavy rain to the Canberra region causing severe flash flooding resulting in Sullivan's Creek flooding. More than a month's worth of rain (> 60 mm) was recorded in less than 5 hours at the Canberra Airport. The ACT's net water diversions increased from 16.2 GL to 21.5 GL. There were only small changes to entitlements and trade.

2017-18 Conditions

Based on Canberra Airport readings, the ACT experienced below average rainfall for the period 2017-18 (497.6 mm). This was a deficient of 120 mm against the long term average rainfall of 617 mm at Canberra Airport. Rainfall in the ACT can be quite localised when comparing various readings around the urban city. The north of Canberra in 2017-18 received more rainfall than the south. For example, the northern suburb of Cook received 625.6 mm compared to the southern suburb of Gordon which received 449.2 mm, a difference of 176.4 mm. Part of the reason for this was due to the major February storm event that hit the northern suburbs of Canberra.

Entitlements

The ACT's Access Canberra (previously Environment Protection Authority) is now responsible for the management of all entitlements within the ACT after the responsibility to manage the Commonwealth entitlements transferred from the National Capital Authority during 2014-15. This will be the third reporting cycle year Access Canberra has managed and reported on all entitlements for the ACT. There were no change in the number or volume of entitlements held by Icon Water during the reporting year and only a small increase of 1.86 GL, compared against 2016-17, of private entitlements across surface water, groundwater and combined surface/groundwater.

Entitlements		Entitlements held for 2017-18	Entitlement volume GL
Surface water	Icon Water entitlements	7	71.00
	Private entitlements	98	4.8
	Total Entitlements	105	75.8
Groundwater	Icon Water entitlements	0	0
	Private entitlements	169	1.6
	Total Entitlements	176	1.6
SW/GW	Private entitlements	31	2.4
	Total Entitlements	31	2.4

There are no further surviving combined surface water/groundwater entitlements to be issued. These entitlements are being phased out on the transfer or sale of property.

Diversions and Returns

The ACT recorded a total net surface water diversion of 21.6 GL during 2017-18 resulting in a small increase in water use of 5.3 GL when compared to 2016-17. The 21.6 GL net consumed represents half of the water available to the ACT under the current 42.7 GL Sustainable Diversion Limit.

Surface Water		Annual Entitlement GL	Annual Diversion GL	%
Diversions	Icon Water diversions	71.0	52.1	73
	Private diversions	4.8	2.8	58
	Total Diversion	75.8	54.9	72
Returns	LMWQCC return		30.3	
	QSTP return		3.0	
	Total Returns		33.3	
Net Diversion	(Diversions – Returns)	42.7	21.6	50
Interceptions	Runoff dams	1.0	1.0	100
	Commercial plantations	11.0	6.5	59
Baseline Diversion Limit		54.7		
Sustainable Diversion Limit		49.8	29.1	58

The table above represents the ACT's SDL of 49.8 GL to account for the 2.0 GL contributed to The Living Murray Initiative and the 4.9 GL of Shared Reduction amount. This adjustment results in an annual permitted take of 54.7 GL.

The ACT recorded a total net groundwater diversion of 0.948 GL consumed during 2017-18 resulting in a slight increase in groundwater use within the ACT of 0.13 GL when compared to 2016-17. The 0.948 GL consumed reflects the ACT's good management practices to control the consumption of available water in the ACT to 29% under the 3.16 GL Sustainable Diversion Limit.

Groundwater		Annual Entitlement	Annual Diversion	%
		GL	GL	
Diversions	Private diversions		1.46	50
	Commonwealth diversions		0.21	95
	Total Diversion		1.68	0.94
Baseline Diversion Limit		1.70		
Sustainable Diversion Limit		3.16	0.94	29

Trade

There were no surface water entitlements and only 2 groundwater entitlement trades totalling 3 ML during 2017-18.

Trade (within ACT)		Entitlements exchanged 2017-18	Entitlement volume
			GL
Surface water	Icon Water	0	0
	Private	0	0
	Commonwealth	N/A	N/A
	Entitlements exchanged	0	0
Groundwater	Icon Water	0	0
	Private	+2	0003
	Commonwealth	N/A	N/A
	Entitlements exchanged	+2	0.003

ACT Model

Water restrictions have not been imposed since November 2010 but the ACT does have mandatory permanent water conservation measures in place to govern how water can be used.

The model output, climate adjusted cap and net abstraction have been reliable throughout the last five reporting years. This consistency is a demonstration that the ACT continues the practice of good water planning and water management by using only 58.6% of surface water against the sustainable diversion limit within the ACT valley. It also demonstrates the cultural shift in the behaviour of the ACT community who continue to save water for the future.

Held Environmental Water

The ACT did not hold any environmental water during the 2017-18.

Planned Environmental Water

Icon Water's entitlement licence requires them to conduct riffle maintenance flows (a form of environmental flow) in the Cotter catchment to flush sediment from the pools between Corin and Bendora Dams and between Bendora and Cotter dams.

An environmental pool flush of 550ML/d was achieved from Corin Dam on 18 October.

However, the EPA halted the requirement for an environmental flush of the pool between Bendora and Cotter Dams as these flushes are considered to have an impact on the Macquarie Perch eggs.

Similarly, Icon Water is required, under licence, to provide environmental baseflows from the four dams to replicate natural flows throughout the year. The Icon Water licence stipulates that 13.7 GL of environmental flows be released from Corin Dam during 2017-18 to maintain and improve river health, 19.2 GL from Bendora Dam, 13.1 GL from Cotter Dam, and 3.9 GL from Googong Dam. For 2017-18 Icon Water met and exceeded all environmental watering requirements under licence.