

— **snowy**hydro —

WATER REPORT

— *for* —

2014 – 2015

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Lake Eucumbene



Eight Mile Creek

FOREWORD

Since the Snowy Scheme's completion in 1974, Snowy Hydro Limited has been the custodian of the water that flows through the Scheme's complex maze of dams, tunnels, aqueducts and power stations.

This report outlines how we are managing that water and steps we are taking to minimise the impact of our operations on the environment.

Snowy Hydro has always operated under a strict Water Licence which governs how we can use the water that is collectively the property of the people of New South Wales and Victoria. There are also strong environmental safeguards that govern our operations and our presence in the Kosciuszko National Park.

Snowy Hydro is an exemplary corporate citizen and we take our obligations to meet the conditions of our licences and any regulations applying to our business very seriously.

We are privileged to operate in some of the most picturesque areas of the Snowy Mountains and we understand that locals and visitors alike are attracted to the area because of the beautiful dams and waterways.

This report is an important channel to educate and inform our stakeholders about the water operations of the Snowy Scheme. After all, while we benefit from the water that moves through our Scheme we don't own a drop of it; nor do we sell the water or charge people to access it.

The Snowy Scheme was constructed to collect and move water east to west and into the food bowl of Australia. But our core purpose is to operate a complex hydro-electric scheme that generates electricity as the market demands and where it makes commercial sense for us to do so. Importantly, electricity generation helps drive revenue to pay for the maintenance and upgrade of the iconic infrastructure that is the Snowy Hydro Scheme.

We continue to effectively balance our commercial imperatives with our environmental obligations. Snowy is an important part of the Australian story and the communities we live and operate in.

I hope you find this report on our operations informative.



Paul Broad
CEO & Managing Director

UNDERSTANDING WATER & OUR BUSINESS

The fundamental driver for water operations of the Snowy Scheme is the Snowy Water Licence.

The Snowy Water Licence, issued by the New South Wales Government, regulates Snowy Hydro in terms of what we can do with the water in the Scheme. It has many legally binding, enforceable obligations on the company.

Snowy Hydro is obligated under the Snowy Water Licence to:

1. Target water releases to the River Murray and Murrumbidgee River catchments, the annual volumes of which are determined according to highly prescriptive formulae set out in the Snowy Water Licence;
2. Targeting water releases from Jindabyne Dam into the Snowy River for environmental purposes (Snowy River Increased Flows); and
3. Facilitating additional natural flows to nominated Rivers for environmental purposes (Snowy Montane Rivers Increased Flows).

To generate electricity Snowy Hydro must release water from the Snowy Scheme, and to release water from the Snowy Scheme, Snowy Hydro must generate electricity. In this way, water releases and electricity generation are inseparably linked.

Snowy Hydro must operate the Scheme to first meet its water release obligations and then to maximise electricity market opportunities within the constraints imposed by the Snowy Water Licence.

Snowy Hydro also has to fund both the debt and operating costs of the Scheme through its participation in the highly competitive National Electricity Market (NEM). Those electricity revenues pay for the increasing costs of maintaining and operating the Scheme, including the costs associated with making environmental flows.

Downstream water users (irrigators and environmental entitlements holders) have never been charged for the water regulation services provided to them each year.

In summary, Snowy Hydro has flexibility from day to day in releasing water from the Scheme as an outcome of generating electricity. Each year, we have to reach certain targets for releases. The short-term flexibility allows us to run our electricity business, while at the same time giving long-term security to the downstream users around annual water releases.

Whilst the Snowy Water Licence recognises the difficulties inherent in achieving precise release volumes at each release point, any shortfall or excess is accounted and generally dealt with by an 'unders' and 'overs' approach whereby the shortfall or excess is added or subtracted to the following years target. I.e. there is no way that Snowy Hydro can consistently 'under-deliver' water to any aspect of the release program.

For more information and a full copy of the Snowy Water Licence we encourage people to visit www.water.nsw.gov.au



Talbingo Reservoir

OVERVIEW OF SNOWY HYDRO

Snowy Hydro Limited has a long and proud history as an Australian company. The construction of the Scheme is a well documented part of our nation's history and we are a great example of Aussie innovation and ingenuity.

From those beginnings, we have become a dynamic and growing end to end energy provider with the complete service offering, still backed by the mighty Snowy. We've evolved from an electricity generator managing electricity price risk in the NEM, to an integrated energy business - generating energy, providing price risk management products for wholesale customers and delivering energy to homes and businesses.

We combine the power of the mighty Snowy Scheme with gas and diesel fired peaking generators to deliver a flexible and reliable mix of energy to our customers every day. We have 16 power stations, generate 4,500 Gigawatt hours (GWh) on average per annum and have more than 5,500 Megawatts (MW) of generating capacity across New South Wales, Victoria and South Australia.

We've become the fourth largest energy retailer in the NEM by investing more than a billion dollars in growing our customer base, modernising our generating infrastructure, building and acquiring more generating capacity where we need it and developing our people.

Every day we provide fast, clean electricity and gas to our one million account holders who are households and businesses - big and small - across the country. Our retail companies Red Energy and Lumo Energy pride themselves on customer service with energy backed by one of the great civil engineering wonders of the world - the Snowy Scheme.

Snowy Hydro operates under a stringent water licence that allows us to capture, store and divert water in order to generate electricity. That water is then released into the River Murray and Murrumbidgee River systems to be used by irrigators and downstream water suppliers.

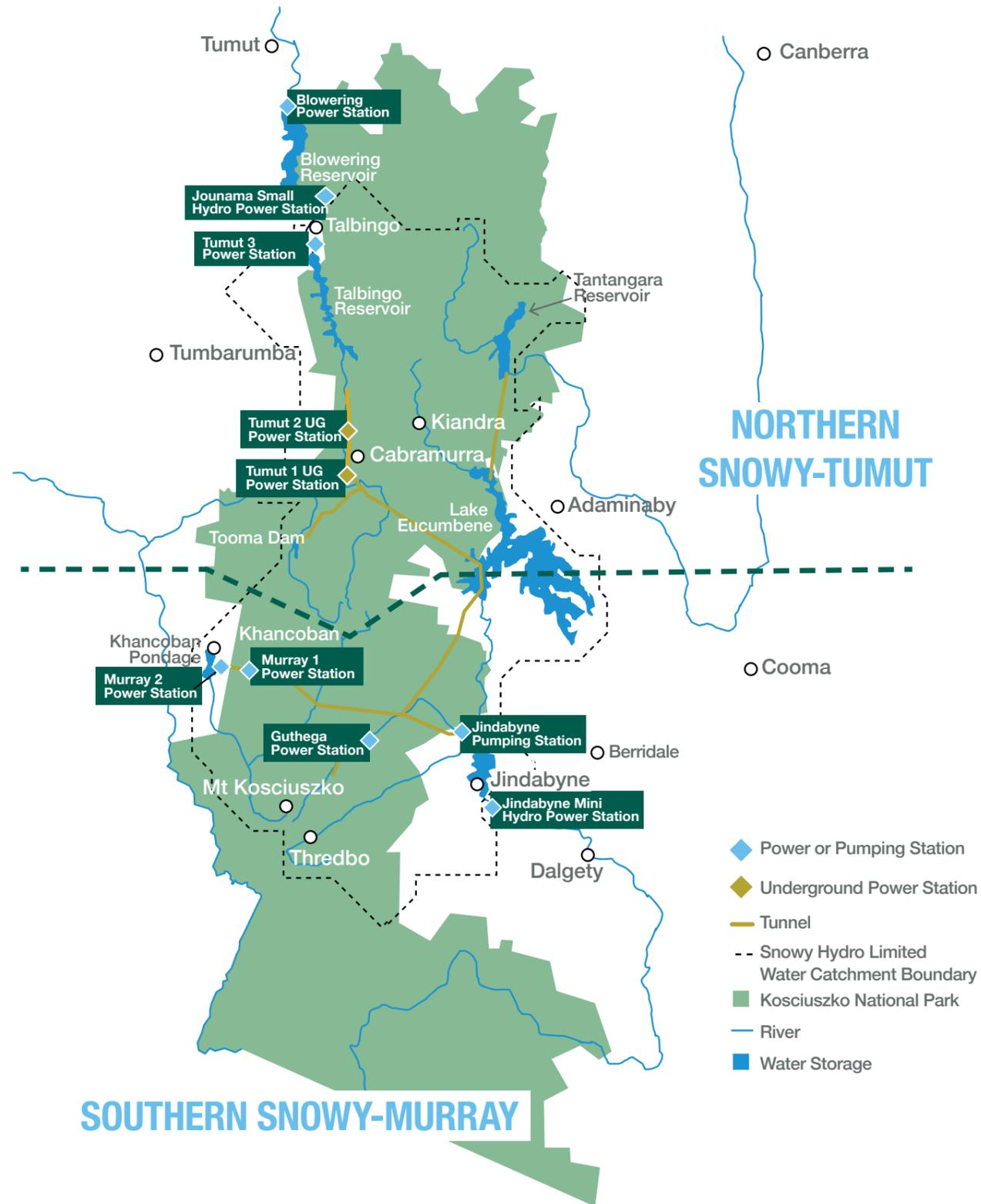
We do not generate electricity constantly but rather we capitalise on periods when electricity demand is high - such as when people are using air conditioners or heaters during summer and winter.

Key to our success is our ability to utilise the Snowy Scheme's large, reliable and fast start capability to our advantage whether it's through spot generation, risk management for our wholesale customers, futures contracts or households and commercial and industrial customers.

But over the years we've diversified the business and rebuilt water storages post-drought to manage our risk and help make us resilient to changes in the market and shifts in energy demand and variable climatic conditions.



Tumut 3 Power Station



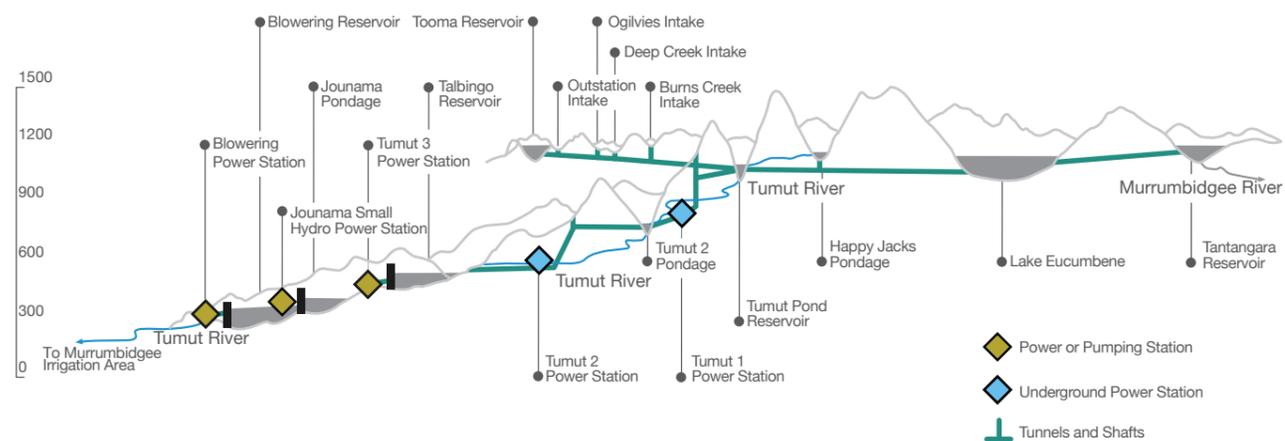
HOW THE SNOWY SCHEME WORKS

The Snowy Scheme was designed to collect and store water, including water that would otherwise flow east down the Snowy River to the coast, diverting it through trans-mountain tunnels and power stations and then releasing it west of the Snowy Mountains into the catchments of the River Murray and the Murrumbidgee River, where it can be used for town water supply, irrigation and environmental uses.

The Snowy Scheme includes:

- Nine power stations – Murray 1, Murray 2, Blowering, Guthega, Tumut 1 (located 366m below ground level), Tumut 2 (located 244m below ground level), Tumut 3, Jounama Small Hydro Power Station and Jindabyne Mini Hydro Power Station;
- One pumping station at Jindabyne and a pump storage facility at Tumut 3 Power Station;
- 16 major dams with a total storage capacity of 7,000 gigalitres (GL) or almost 12 times the volume of Sydney Harbour;
- 145km of inter-connected tunnels and pipelines and 80km of aqueducts; and
- 33 hydro-electric turbines with a generating capacity of 4,100MW.

The Snowy Scheme comprises two major developments: the Northern Snowy-Tumut Development and the Southern Snowy-Murray Development. The water in Lake Eucumbene, our large long-term storage lake, is split between the two developments based on where the water was collected from.



THE SNOWY-TUMUT DEVELOPMENT

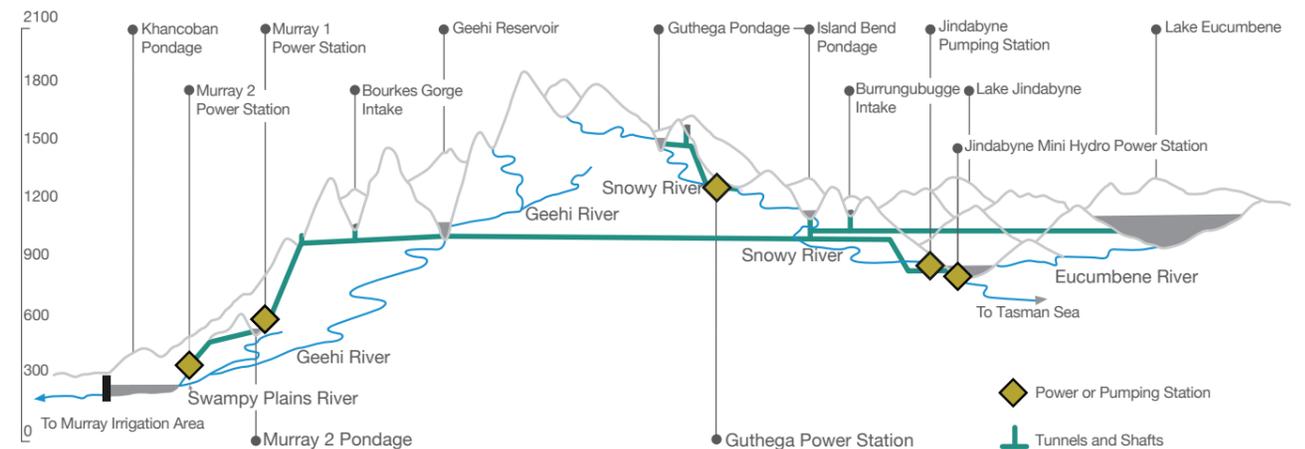
The Snowy-Tumut Development consists of five power stations and 16 generating units. It collects the headwaters of the upper Murrumbidgee, Tooma and Eucumbene Rivers. Those waters are diverted through trans-mountain tunnels to Tumut Pond Dam where they join the waters of the Tumut River and flow through Tumut 1 and Tumut 2 underground power stations, discharging into Talbingo Reservoir. Water stored in Talbingo Reservoir then passes through the Tumut 3 Power Station and into Jounama Pondage.

Three of the six generating units at Tumut 3 Power Station also have large pumps fitted that can be used to pump water from Jounama Pondage back up into Talbingo Reservoir, thereby 'recycling' water. Water cannot be pumped any further uphill than Talbingo Reservoir.

Water is released from Jounama Dam into Blowering Reservoir either through the Jounama Small Hydro Power Station or through the radial release gates at Jounama Dam.

Blowering Power Station is located on Blowering Dam and is leased from NSW State Water Corporation. Water releases from Blowering Dam are controlled by State Water to provide for downstream town water supply, extractive and environmental use requirements.

Blowering Power Station is therefore a 'run of river' plant that operates as State Water releases water from Blowering Dam into the Tumut River, which joins the Murrumbidgee River near Gundagai. On the Murrumbidgee River at Gundagai, the Snowy Scheme contributes around 25% of inflows during average inflow years but can provide up to 60% of the total inflows to this location during drought years.



THE SNOWY-MURRAY DEVELOPMENT

The Snowy-Murray Development consists of four power stations with 17 generating units and one pumping station. Water in the upper Snowy River is diverted at Guthega Dam through Guthega Power Station and back into Island Bend Dam. Inflows into the relatively small Guthega Pondage are seasonal and spills of the reservoir are common, particularly during the spring snowmelt period.

During times of high inflows, water flowing into Island Bend Pondage is diverted to Lake Eucumbene for storage and subsequently transferred to the River Murray catchment at a later time. At times of low inflows, water from Island Bend Pondage is diverted to Geehi Reservoir through a trans-mountain tunnel, together with water transferred back from Lake Eucumbene.

The Jindabyne Pumping Station pumps water from Lake Jindabyne, normally using off-peak power (typically at night and on weekends) into Geehi Reservoir on the western side of the Great Dividing Range. Water from Lake Jindabyne cannot be pumped back to Lake Eucumbene or to Island Bend Dam.

Additionally, the Jindabyne Small-hydro Power Station allows Snowy Hydro to recover a small amount of electricity from some of the environmental releases made from Jindabyne Dam into the Snowy River.

From Geehi Reservoir, with additional water from the Geehi River, the water from Island Bend and Eucumbene passes through Murray 1 and Murray 2 power stations. Khancoban Dam regulates water released from Murray 2 Power Station down the Swampy Plains River which is a tributary of the upper River Murray. On the River Murray at Hume Dam, the Snowy Scheme contributes inflows of only around 8% during average inflow years but can contribute up to 33% of inflows during drought years.



Guthega Dam

UNDERSTANDING WATER & THE SCHEME

Definitions:

Water Year- The Snowy Hydro water year commences on 1 May and concludes on 30 April each calendar year.

1 gigalitre (GL)- Equal to 1,000 megalitres (ML).

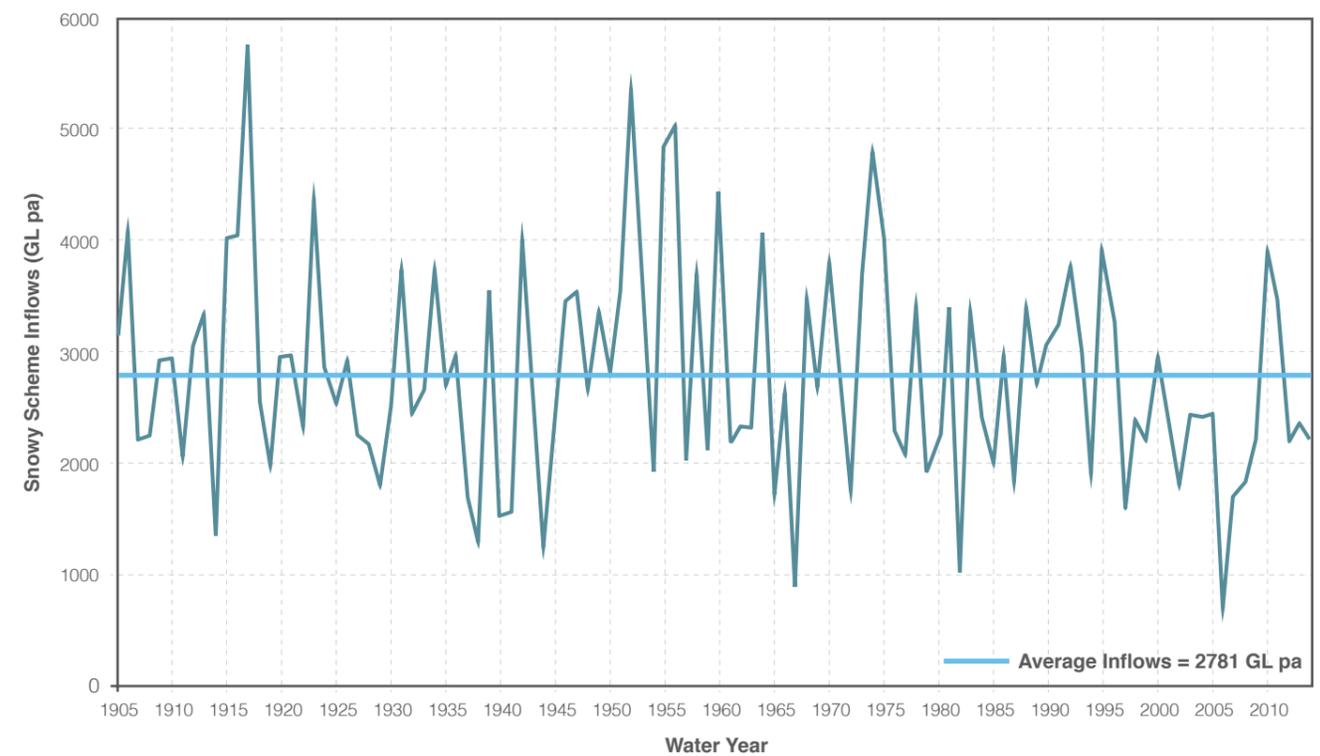
1 megalitre (ML)- Equal to 1 million litres (L).

Variability:

The Snowy Scheme was designed to cope with large variability in inflows. In the last 109 years of data, inflows have ranged from 683GL seen in 2006/07 during the worst drought on record, to 5761GL almost a century ago in 1917. The long term average is just below 2800GL.

The total volume of Snowy Scheme storages is massive and it will take a number of consecutive years of above average inflows to return our total storage volumes, particularly Lake Eucumbene, to above average levels.

We can expect to receive around 50% of our inflows from snowmelt and rain during spring, so a bad snow season can have a significant impact on the total inflows for the year.



Water ownership:

The Snowy Water Licence states that Snowy Hydro has the right to collect, divert, store and release water. That, in no way, represents any form of ownership of the water. The parties who have an entitlement to releases from the Snowy Scheme own all of the water in the Scheme. This includes the states of New South Wales and Victoria, irrigators from those states, downstream town water supplies and the environment.

The water you see in Lake Jindabyne, Tantangara Reservoir, Lake Eucumbene and all of the other Snowy Hydro storages has already been secured and allocated to the above mentioned parties by the Government.

Snowy Hydro has some flexibility around the short-term timing of releases to meet energy generation needs throughout the year. However, by the end of each water year (which ends in April), Snowy Hydro has to have released a predetermined volume of water out of the Scheme. This is one of the legally binding obligations set out in the Snowy Water Licence.

Water content of snow:

In the Snowy Mountains, the density (or water content) of freshly fallen snow is about 20-25%: 1mm of rain equals about 5mm (0.5cm) of snow. Fresh snow has a relatively low water content, and as the winter season progresses, the average density of snow on the ground tends to increase as it compresses. Throughout the season, the density of snowpack in the Snowy Mountains generally ranges from as little as 25% up to 50%. So, if there is a two metre snowpack, that would be the equivalent of between 50 and 100cm of water sitting on the mountain at that point.



How much of this water makes it into the reservoirs when the snow melts is another matter. Snowmelt is strongly impacted by the weather conditions experienced during late winter and spring, and small changes in the weather can lead to vastly different outcomes for inflows. For example heavy rain falling on a dense snowpack melts the snow quickly and maximises runoff, and hot northerly winds help to melt the snow but when the air is dry, much of the water can evaporate rather than run off into the streams or rivers.



SHARING OF INFLOWS BETWEEN CATCHMENTS

One of the key functions of the Snowy Scheme is to divert flows from rivers of the Eastern side of the Dividing Range to the West. The Snowy Water Licence prescribes how each of the three catchments are allocated to either of the two developments of the Scheme.

Of all the inflows into the Snowy Scheme, each year some water will be lost to evaporation, seepage and occasionally water will be spilt when the inflows are too great for the Scheme to control. This water is subtracted from the total inflow to determine the usable catchment yield. The yield is distributed as per the below diagram and released through the dams and power stations on its way to the Murray, Murrumbidgee and Snowy Rivers. The diagram represents the long term average volume of water that is collected by, diverted between and released from, each of the three main river catchments in the Scheme.

These values are based on analysis of long term data and have taken into account the increase in environmental flows targeted for release down the Snowy River and the consequent reduction in diversion and releases to the River Murray and Murrumbidgee River.





Eucumbene River

FLOOD OPERATIONS

Flooding occurs when the channel capacity is exceeded and flows overtop onto the floodplain. When the channel capacity of the rivers downstream of the Snowy Scheme is exceeded, our releases are limited to what the flows would have been had the Scheme not existed. This is known as the calculated 'Pre-SMA' flow.

This means that during a flood we do not release any more water than what would have naturally flowed down the river. As such, we do not in any way exacerbate flooding downstream of the Scheme.

The Scheme can provide limited storage capacity for high inflows, which in turn can provide some short term assistance. However, water cannot be diverted back to Eucumbene from lower catchments such

as Khancoban, Geehi or Talbingo. These are small storages and once they are full, the water must flow downhill.

To pass the water safely and effectively through the Scheme, Snowy Hydro aims to utilise our series of power stations where possible, rather than operating other spillways at a dam. This means we must generate and will often have to bid that power into the NEM at very low prices (even possibly at \$0) to ensure that our plant is dispatched to pass flood flows.

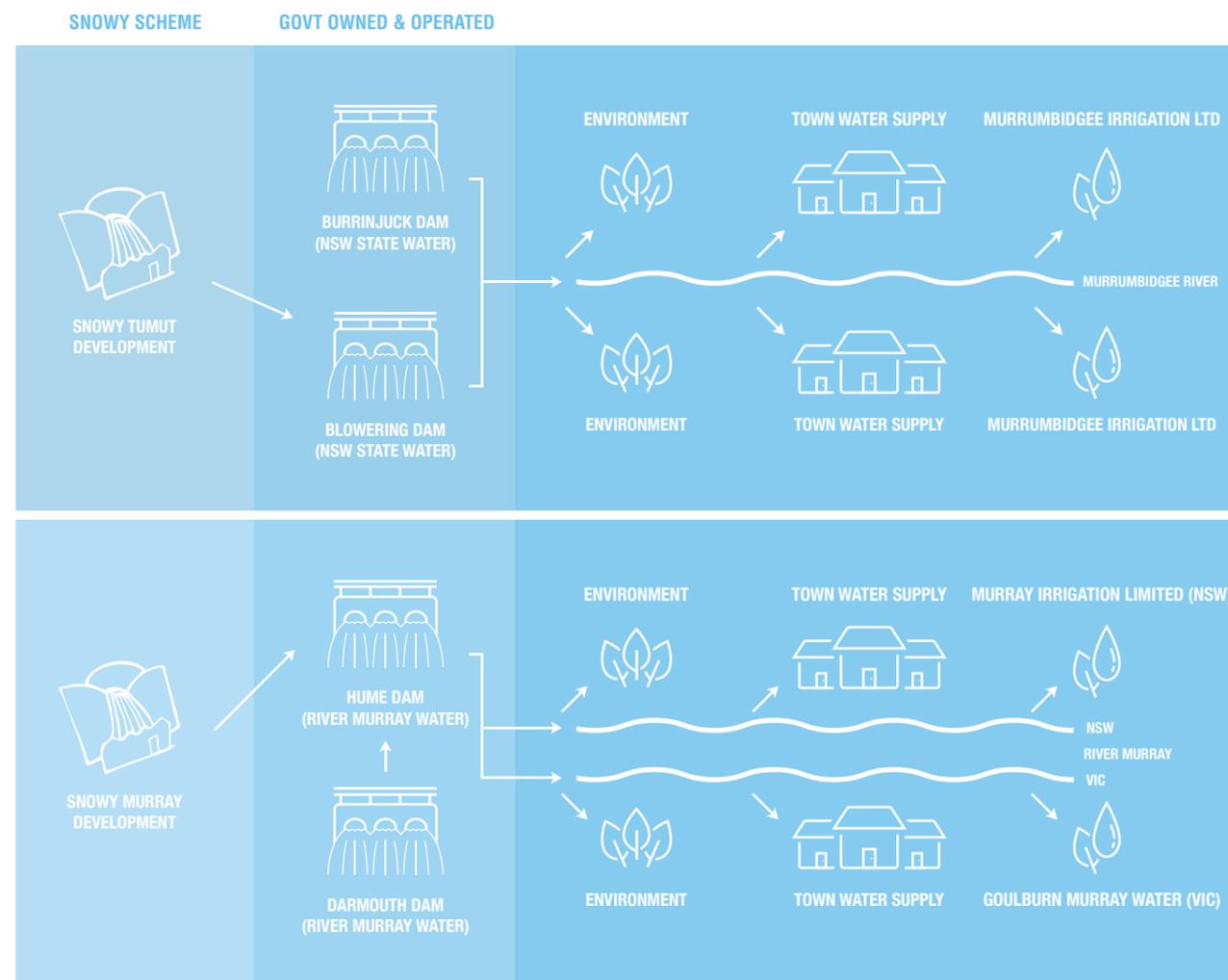
During flood operations, we liaise closely with the BoM, local SES and councils to ensure that the most up to date information is available for landholders and flood response activities.

Snowy Hydro does not determine releases from the Scheme or to irrigators:

Snowy Scheme releases and the other River Murray and Murrumbidgee River catchment inflows are re-regulated by Hume Dam on the River Murray and Blowering Dam on the Tumut River – neither of which are owned or controlled by Snowy Hydro.

Water releases for extractive and environmental uses along the Upper River Murray are managed by the Murray-Darling Basin Authority, principally through releases from Dartmouth and Hume Dams (the Snowy Scheme does not make releases into nor has any control over the operation of Dartmouth Dam).

Water releases for extractive and environmental uses along the Murrumbidgee River are managed by the NSW State Water Corporation, principally through releases from Blowering and Burrinjuck Dams (again, the Snowy Scheme does not have any control over the operation of Burrinjuck Dam).





Lake Eucumbene

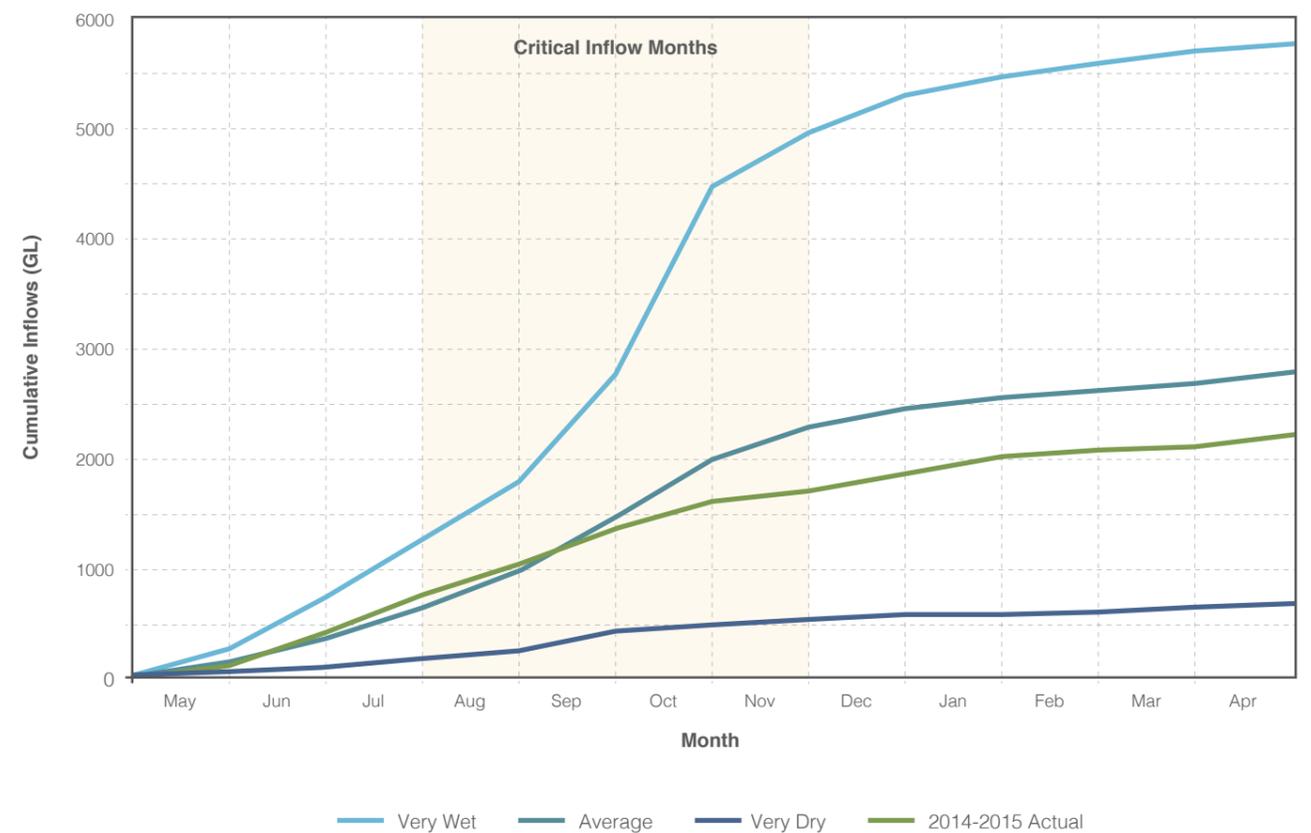
THE 2014-2015 WATER YEAR – WHAT WATER CAME IN

INFLOWS

Snowy Scheme inflows for 2014–15 were 2,209GL which is about 79% of the long term average of 2,781GL.

We would need multiple years of average or above average inflows to see major sustained improvements in lake levels. In 2014-15 we received below average inflows, therefore further increasing the time it will take for storages to return to long-term average levels.

SNOWY SCHEME INFLOWS FOR MAY 2014 TO APRIL 2015



SNOWY SCHEME STORAGES

Snowy Scheme storage levels are referred to in different measurements, they being 'Active Storage' and 'Gross Storage'.

Active storage is the water that generally can be accessed by either pumping or through release via dams or through power stations. Gross storage is the total amount of water behind the dam wall including the water that cannot ordinarily be accessed due to the design of the Scheme infrastructure.

For the purposes of our business operations, active storage is used, whereas recreational users are generally more interested in and familiar with gross storage. For example, Lake Jindabyne could experience a 0% active storage level but the lake itself would be then at approximately 44% gross storage. This remaining water cannot be accessed via the pumping station due to the physical design limitations of the Scheme.

At the end of the 2013–14 water year, Snowy Scheme active storage was 2,168GL. This is equivalent to 40.9% of the total active storage capacity.

During the 2014–15 water year, active storage increased by 395GL to 2,563GL at the end of the year, which is 48.3% of the total active storage capacity.

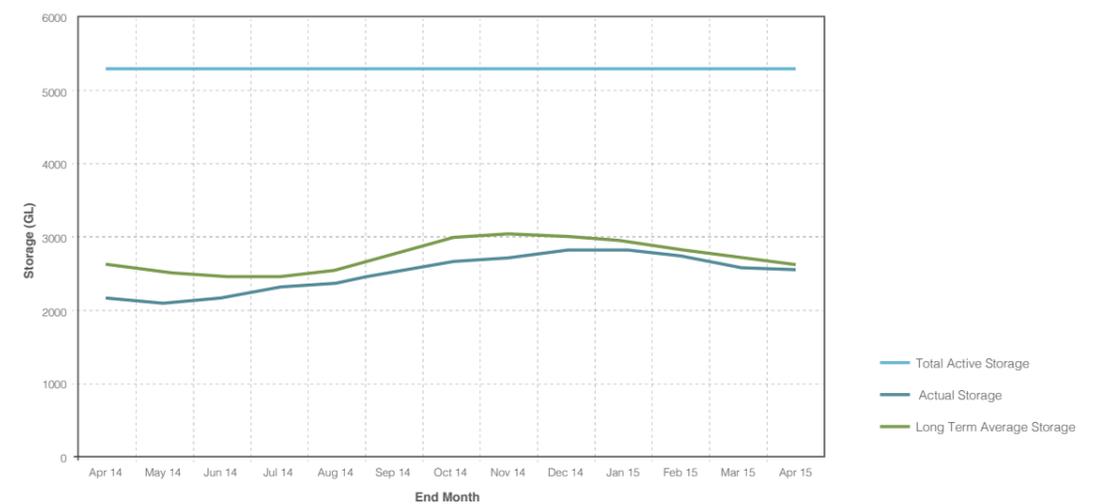
LAKE LEVELS

The Snowy Scheme's main storage, Lake Eucumbene, ended the 2014-15 year higher than the previous year but still below the long-term average storage level.

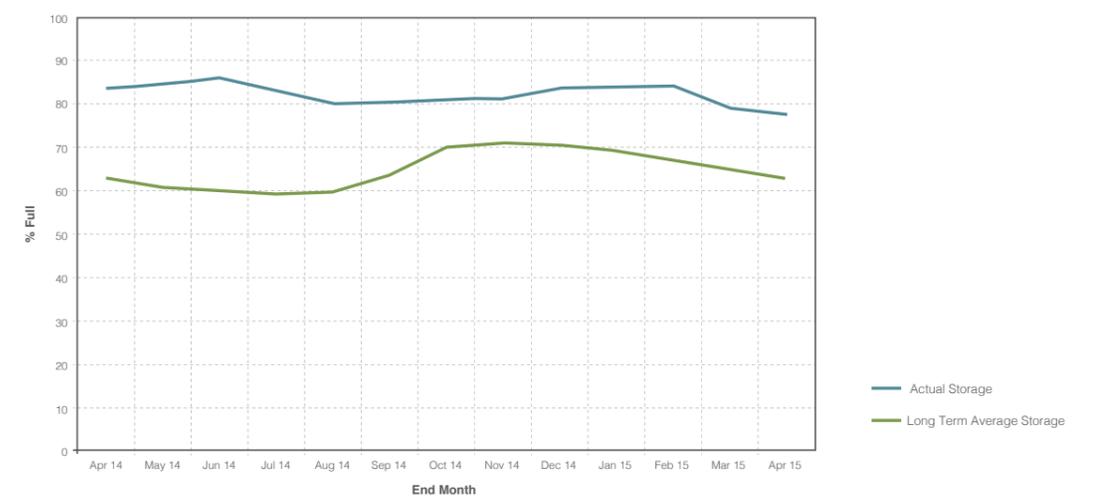
The level of Lake Jindabyne at the end of the 2014-15 water year was lower than that of the previous year, and the storage level remains well above the long term average storage level. Snowy Hydro now maintain a higher lake level in order to ensure security of supply for the flushing flows out of Jindabyne Dam into the Snowy River.

Snowy Hydro reports gross storage levels to local tourism operators and the local community on the SnowyLIVE App and on our website. Lake Levels for our three main storages of Jindabyne, Eucumbene and Tantangara are provided weekly and are available at www.snowyhydro.com.au. The SnowyLIVE App can be downloaded from the Apple App Store or Google Play. The website also includes a lake level comparison calculator where it can be seen that lake levels have improved since the height of the drought in 2006–07 in line with improvements in annual inflows.

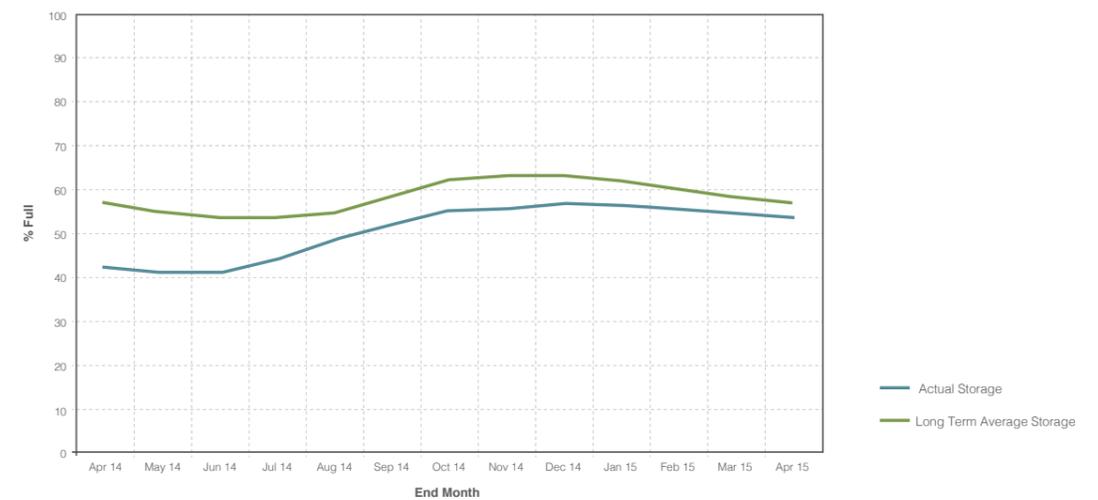
SNOWY SCHEME ACTIVE STORAGE FOR 2014-2015 WATER YEAR



LAKE JINDABYNE GROSS STORAGE FOR 2014-2015 WATER YEAR



LAKE EUCUMBENE GROSS STORAGE FOR 2014-2015 WATER YEAR





Khancoban Dam

COMPLYING WITH OUR LICENCE

WHAT WATER WENT OUT

Snowy Hydro complied with all of the requirements imposed upon the company under the Snowy Water Licence during the 2014–15 water year including each water release target relating to:

- The Required Annual Release to the River Murray catchment
- The Required Annual Release to the Murrumbidgee River catchment
- Environmental releases into the Snowy River from Jindabyne Dam
- Environmental releases into the Murrumbidgee River from Tantangara Dam
- Environmental releases into the Goodradigbee River from Goodradigbee Aqueduct
- Environmental releases into the Geehi River from Middle Creek Aqueduct
- Environmental releases into the Snowy River from Bar Ridge and Diggers Creek Aqueducts

WESTERN RIVER RELEASES

RIVER MURRAY CATCHMENT

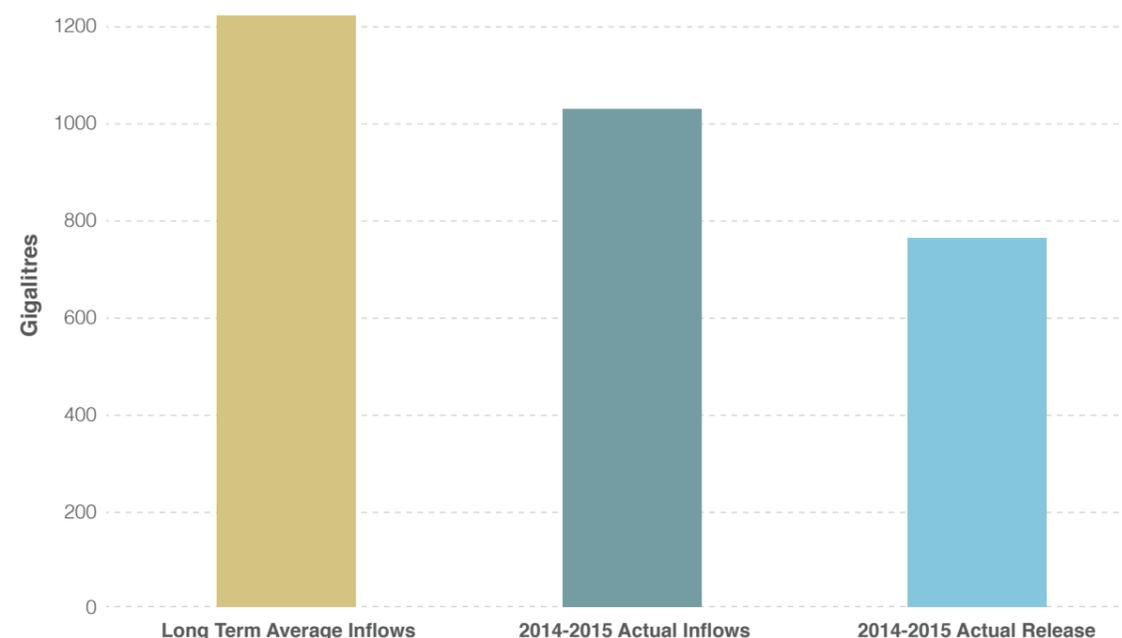
Snowy Hydro complied with its obligation to target the Required Annual Release (RAR) from the Snowy-Murray Development to the River Murray catchment during the 2014–15 water year.

The total accounted release volume was 762GL. This was made up of:

- 760GL being the 2014–15 Required Annual Release calculated under the Snowy Water Licence; plus
- 2GL of pre-release of the 2015–16 Required Annual Release; plus
- 0GL of Discretionary Above Target Water Releases (water not required for RAR releases that Snowy Hydro is able to release at its discretion).

This total accounted release volume includes 14GL of Montane environmental flow releases provided to the Geehi and Swampy Plains River which did not flow through Scheme power stations.

INFLOWS AND RELEASES TO THE RIVER MURRAY CATCHMENT DURING 2014-2015



Khancoban Pondage

MURRUMBIDGEE RIVER CATCHMENT

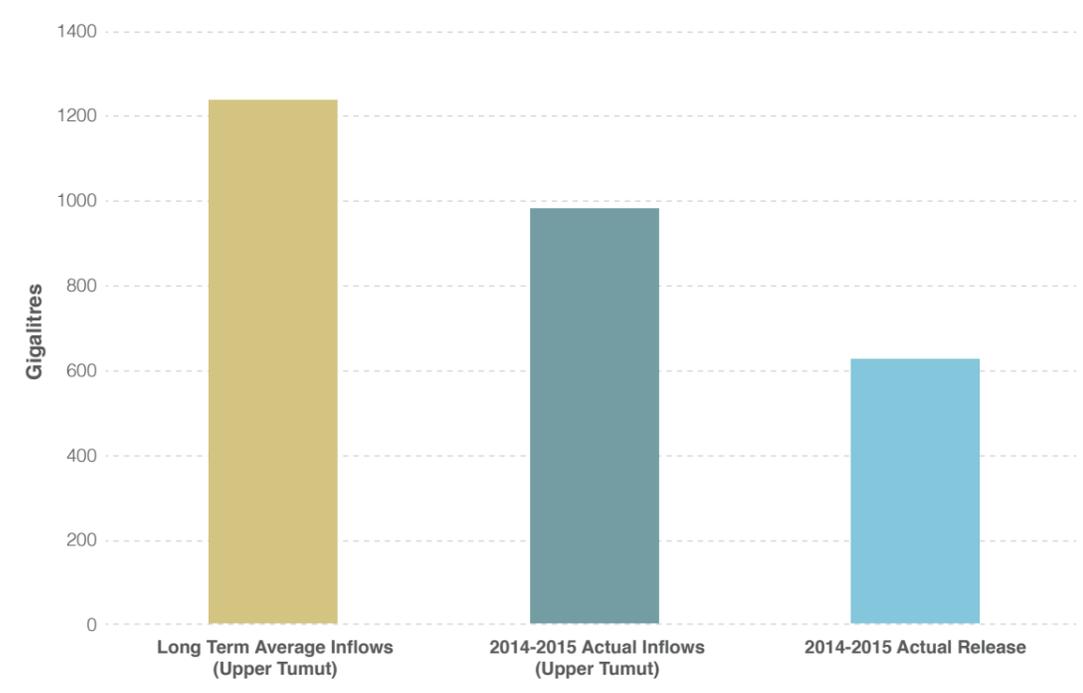
Snowy Hydro complied with its obligation to target the Required Annual Release from the Snowy-Tumut Development to the Murrumbidgee River catchment during the 2014–15 water year.

The total accounted release volume was 623GL. This was made up of:

- 623GL being the 2014–15 Required Annual Release calculated under the Snowy Water Licence; plus
- 0GL of pre-release of the 2015–16 Required Annual Release; plus
- 0GL of Discretionary Above Target Water release (water not required for RAR releases that Snowy Hydro is able to release at its discretion).

This total release volume includes 27GL of montane environmental flow releases provided to the Murrumbidgee and Goodradigbee Rivers which did not flow through Scheme power stations.

INFLOWS AND RELEASES TO THE MURRUMBIDGEE CATCHMENT DURING 2014-2015



Jounama Dam and Pondage



Snowy River Flushing Flows

ENVIRONMENTAL RELEASES

SNOWY RIVER INCREASED FLOWS

Snowy Hydro complied with its obligation to target releases from Jindabyne Dam for environmental purposes during the 2014–15 water year.

The volume of Snowy River Increased Flows (SRIF) released from Jindabyne Dam during the 2014–15 water year was 147.6GL, which was 0.8GL above the target volume of 146.8GL. That excess is well within the +/-10% annual tolerance around the target volumes allowed under the Snowy Water Licence. The 2015–16 target has been adjusted down to account for this release surplus.

In addition to the environmental releases, 8.5GL Base Passing Flow (BPF) was also released from Jindabyne Dam and 0.5GL riparian flow was released from the Mowamba Weir.

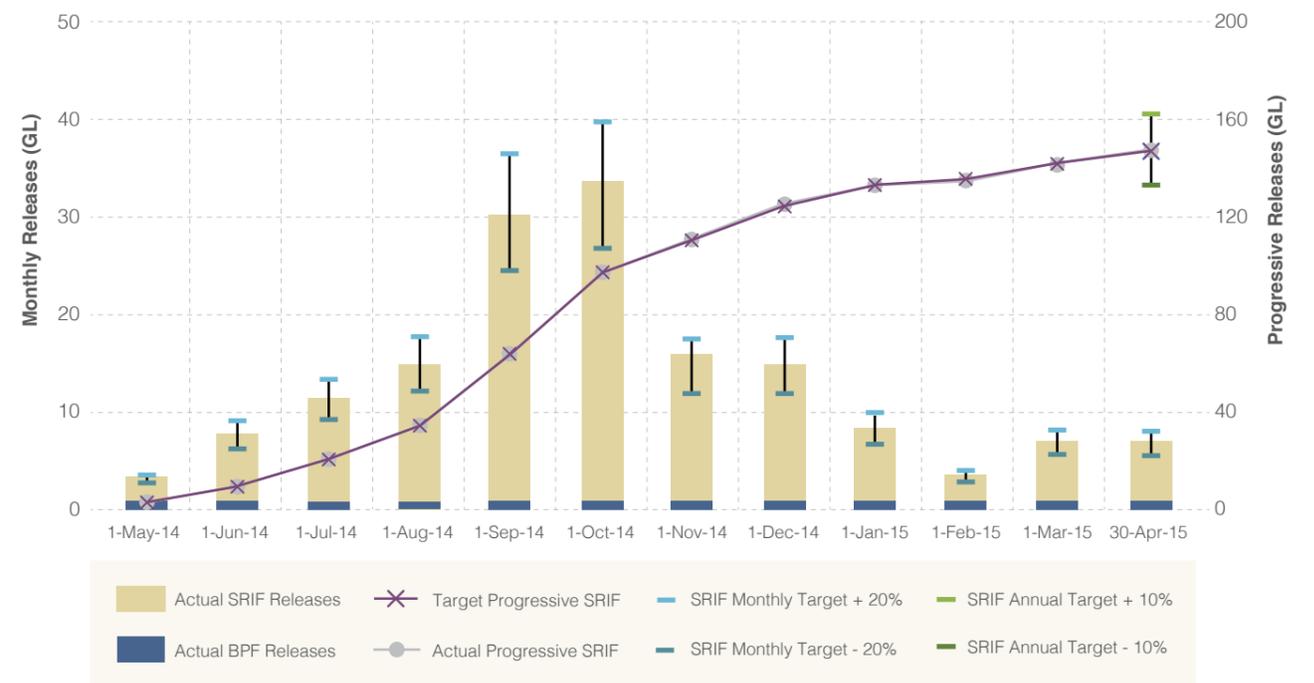
All monthly releases were within the +/-20% monthly tolerance around the target volumes and daily releases were within the +/-20% daily tolerance allowed under the Snowy Water Licence.

As allocations for the 2014–15 water year once again exceeded 100GL, a flushing flow was delivered to the Snowy River through the spillway and cone valves at Jindabyne Dam in October 2014.

The comparison of the annual, monthly and daily release targets for the Snowy River Increased Flow releases against the actual releases is shown in the following charts.

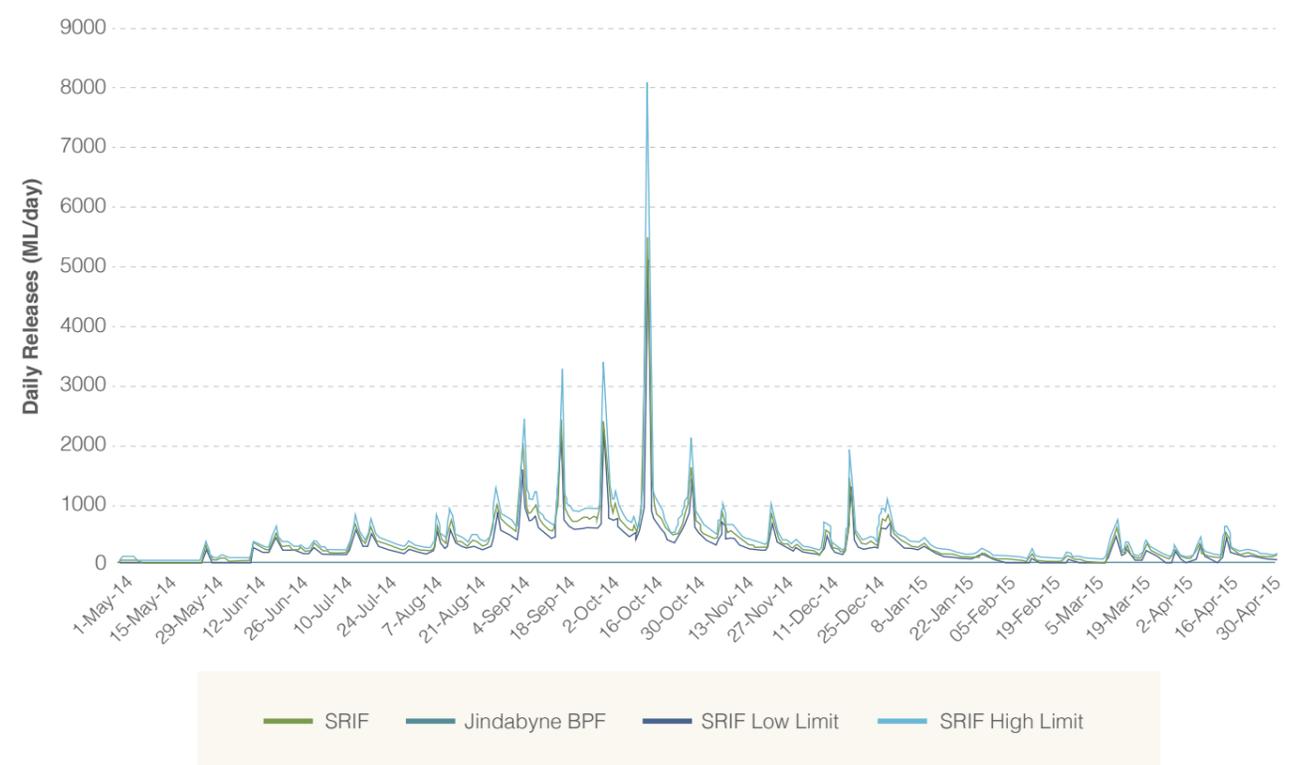
SRIF AND JINDABYNE BPF RELEASES INCL MOWAMBA RIPARIAN RELEASES

Number of months when SRIF release were outside monthly limits = 0



SRIF AND JINDABYNE BPF RELEASES AND DAILY LIMITS

Number of days when Jindabyne releases were outside daily limits= 0





Lake Jindabyne

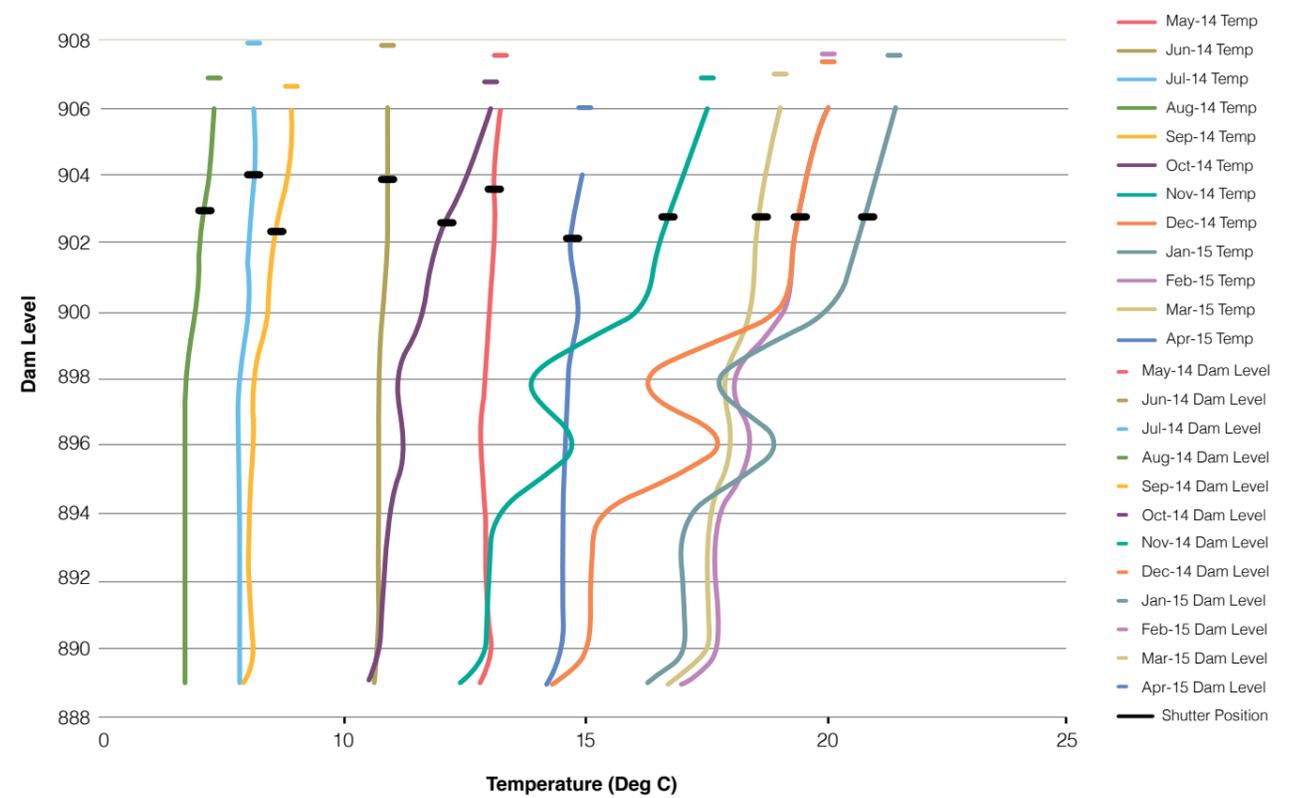
THE TEMPERATURE OF RELEASES FROM LAKE JINDABYNE

The Snowy Water Licence requires the outlet works at Jindabyne Dam to be capable of releasing water from above any thermocline in the reservoir. The thermocline is a thin but distinct layer in a large body of water in which water temperature changes more rapidly with depth than it does in the layers above or below. Typically, as the summer progresses, the surface waters warm and the deeper waters remain cold. This causes a lack of mixing between the upper and lower layers, which can result in the lower layer having reduced oxygen levels. For these reasons the deeper waters within reservoirs are generally viewed as having undesirable water quality characteristics for releases, hence the requirement for the outlet works to be able to draw from above the thermocline.

The intake works at Jindabyne are located at the end of a channel excavated into the bank of Lake Jindabyne. In addition to the variable level shutters in the intake tower, the level of the base of the channel means that the deeper waters of the reservoir are inaccessible. This means that the thermocline is only likely to be above the levels of the intake channel when the lake is at high levels.

Snowy Hydro undertakes temperature monitoring at the intake tower to detect the presence of a thermocline and adjusts shutter height as necessary. As can be seen in the chart opposite, all releases were made from above the thermocline.

JINDABYNE DAM INTAKE WATER TEMPERATURES AND LEVEL



SNOWY MONTANE RIVERS INCREASED FLOWS

Snowy Hydro complied with its obligation to target Snowy Montane Rivers releases for Environmental purposes during the 2014–15 water year. The Snowy Montane Rivers include all rivers within the Snowy Water Catchment Area including the Upper Murrumbidgee River immediately below Tantangara Dam but excluding the Snowy River, the Mowamba River and Cobbon Creek.

During the 2014–15 water year, Snowy Hydro was directed to make Snowy Montane Rivers Increased Flows (SMRIF) from the following locations:

- Tantangara Dam to the Murrumbidgee River,
- Goodradigbee Aqueduct to the Goodradigbee River (a tributary of the Murrumbidgee River),
- Middle Creek Aqueduct to Middle Creek (a tributary of the Geehi River); and
- Bar Ridge and Diggers Creek Aqueducts to Tolbar Creek and Diggers Creek respectively (tributaries of the Snowy River).

The target volume for Snowy Montane Rivers Increased Flows totalled 66.7GL, with 18.3GL from Tantangara Dam, 12.0GL from Goodradigbee Aqueduct, 17.5GL from Middle Creek, and 18.9GL

from Bar Ridge and Diggers Creek Aqueducts, all to be targeted over the water year.

The total actual montane release volume was 58.3GL. This was made up of 18.7GL from Tantangara Dam, 8.4GL from Goodradigbee Aqueduct, 14.0GL from Middle Creek Aqueduct and 17.2GL from Bar Ridge and Diggers Creek Aqueducts, released over the water year.

The comparison of the annual, monthly and daily release targets for the Snowy Montane Rivers Increased Flows against the actual from Tantangara Dam is set out in the graphs opposite. All daily, monthly and annual release targets were within the compliance limits.

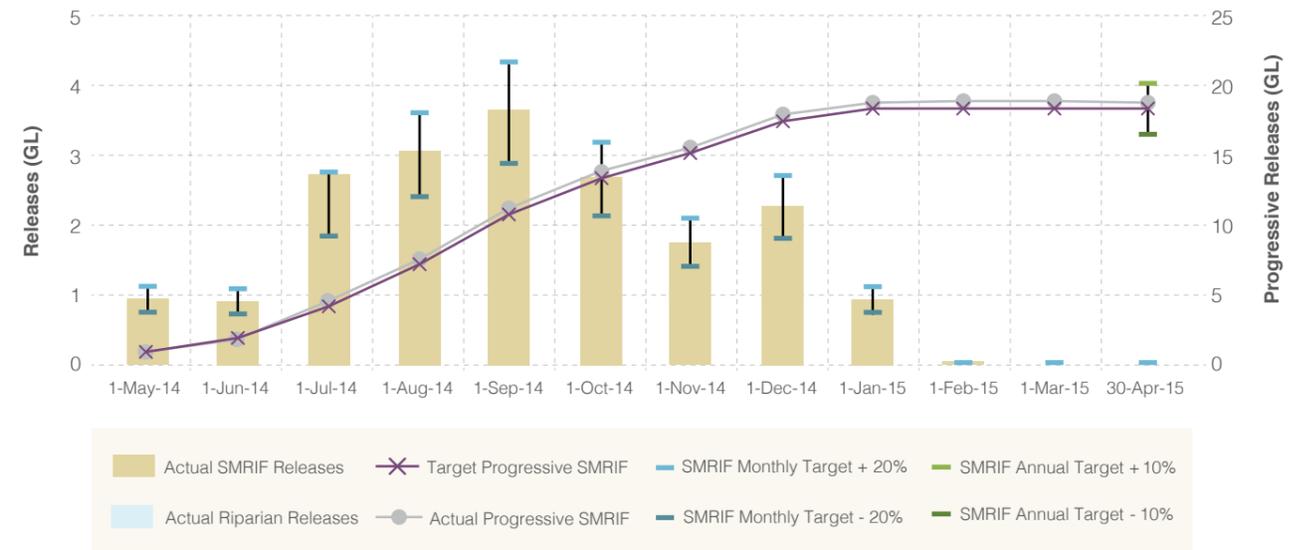
Monthly releases from Goodradigbee, Middle Creek, Bar Ridge and Diggers Creek are also provided on pages 31 and 32. As these releases are made from small catchments and the inflows (and therefore releases) cannot be predicted or controlled, there are no annual compliance targets for these releases. The above/below target delivery of water in these catchments in 2014-15 reflects the inflows received in these locations. In years when inflows are above average, above average volumes of water will be delivered to these catchments and vice versa.



Eucumbene River

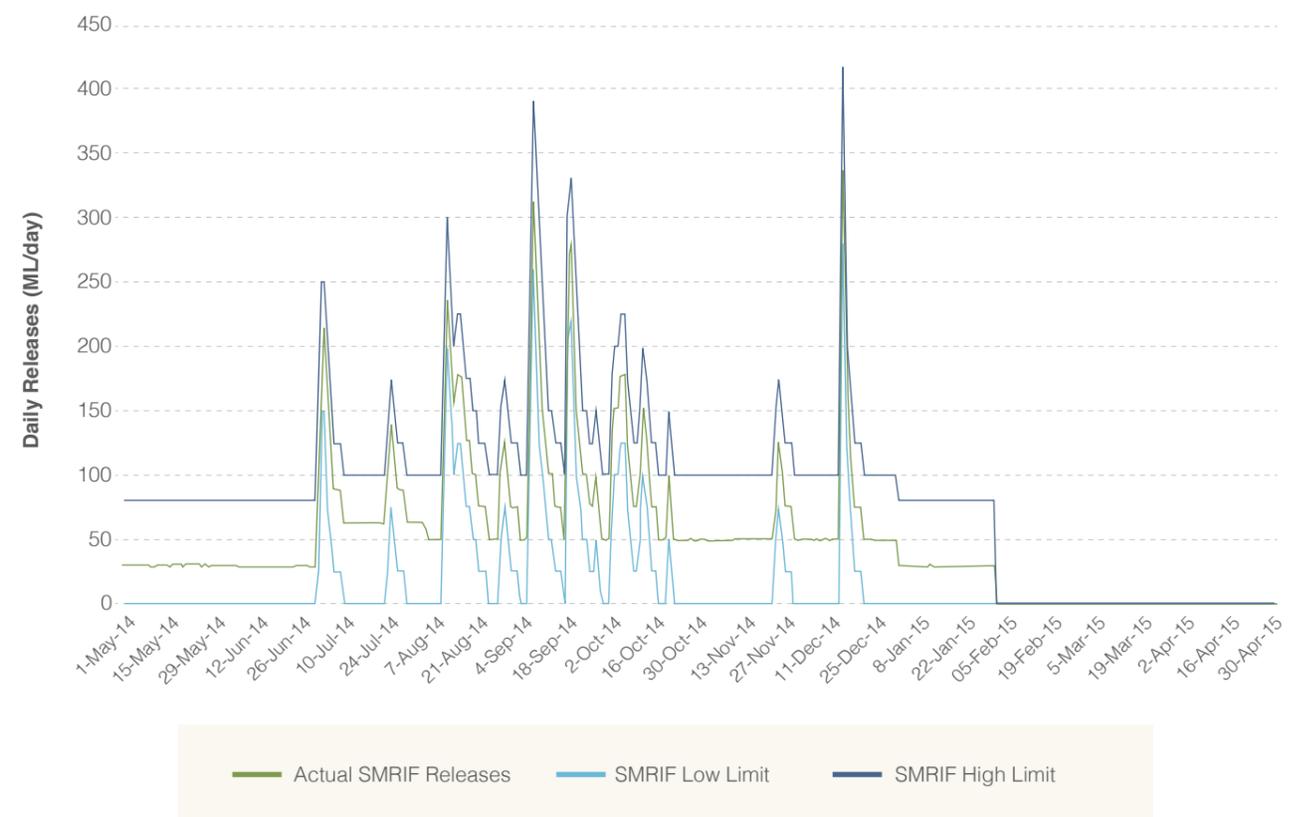
SMRIF AND RIPARIAN RELEASES FROM TANTANGARA DAM

Number of months when Tantangara Dam releases were outside monthly limits = 0

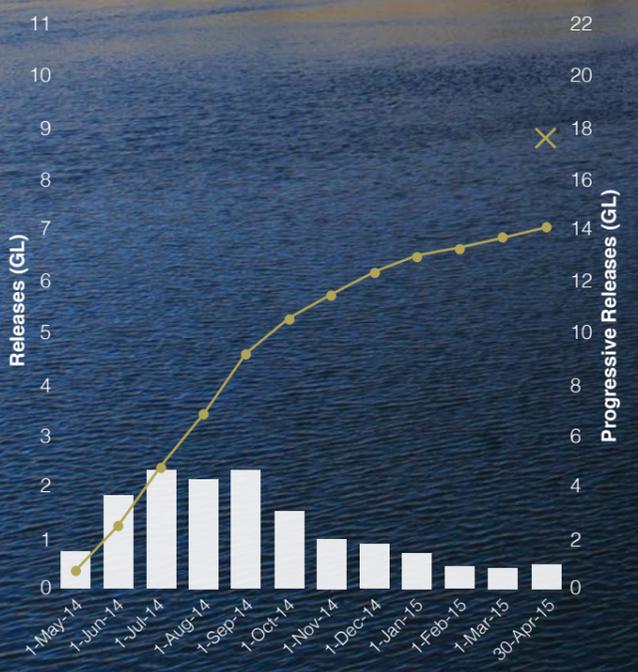


SNOWY MONTANE RIVERS INCREASED FLOWS FROM TANTANGARA DAM AND DAILY LIMITS

Number of days when montane releases were outside daily limits= 0



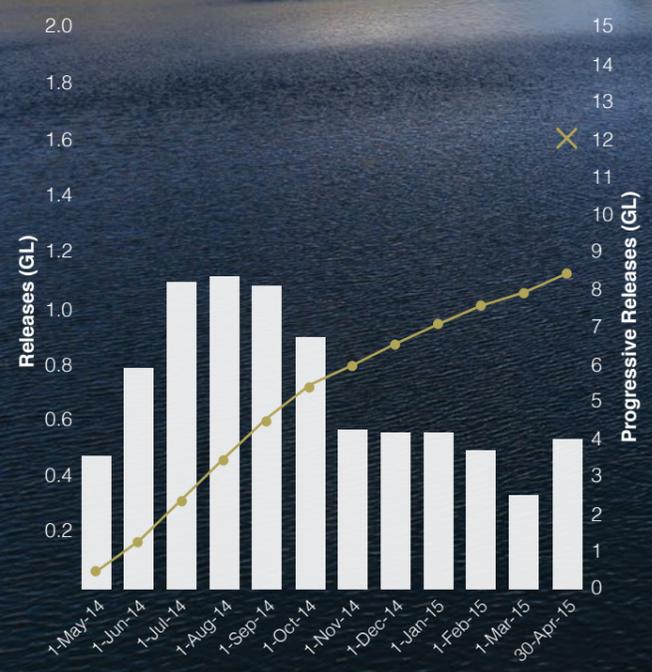
SMRIF FROM MIDDLE CREEK AQUEDUCT



Actual Release (GL)
 Actual Progressive (GL)
 Water Year Target (GL)

Note: There are no monthly or annual compliance targets for Middle Creek.

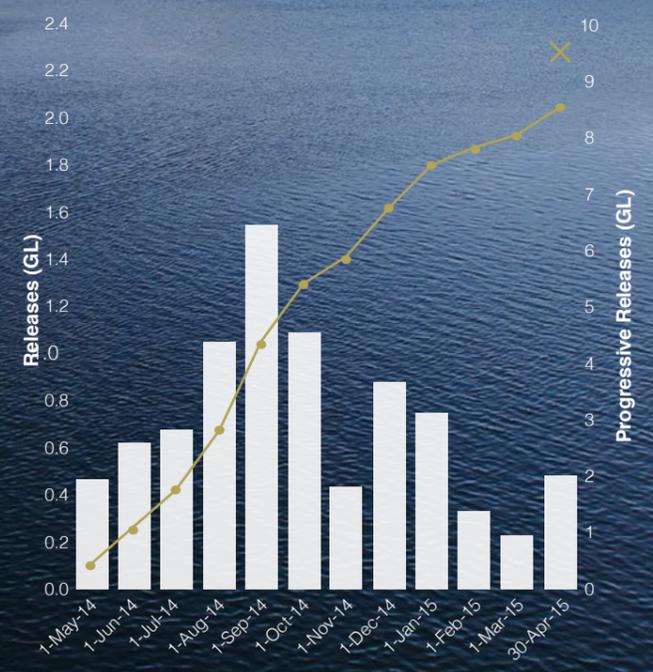
SMRIF FROM GOODRADIGBEE WEIR



Actual Release (GL)
 Actual Progressive (GL)
 Water Year Target (GL)

Note: There are no monthly or annual compliance targets for Goodradigbee Weir.

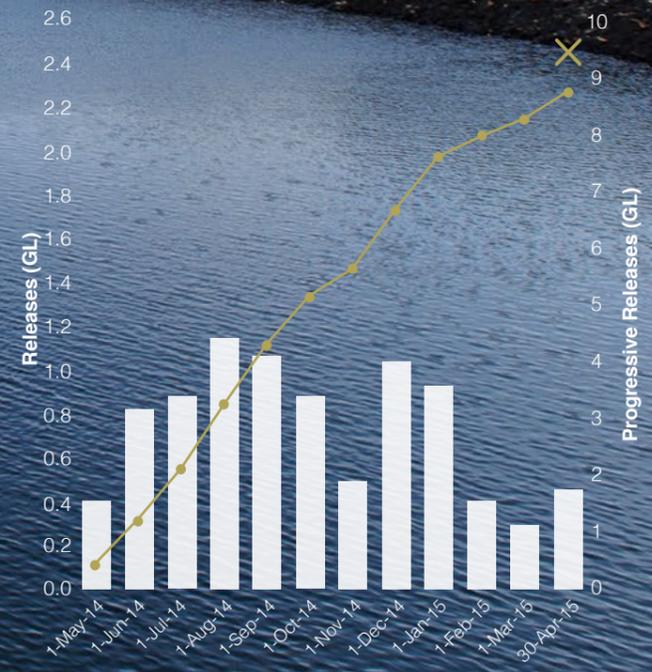
SMRIF FROM BAR RIDGE AQUEDUCT



Actual Release (GL)
 Actual Progressive (GL)
 Water Year Target (GL)

Note: There are no monthly or annual compliance targets for Bar Ridge.

SMRIF FROM DIGGERS CREEK AQUEDUCT



Actual Release (GL)
 Actual Progressive (GL)
 Water Year Target (GL)

Note: There are no monthly or annual compliance targets for Diggers Creek.

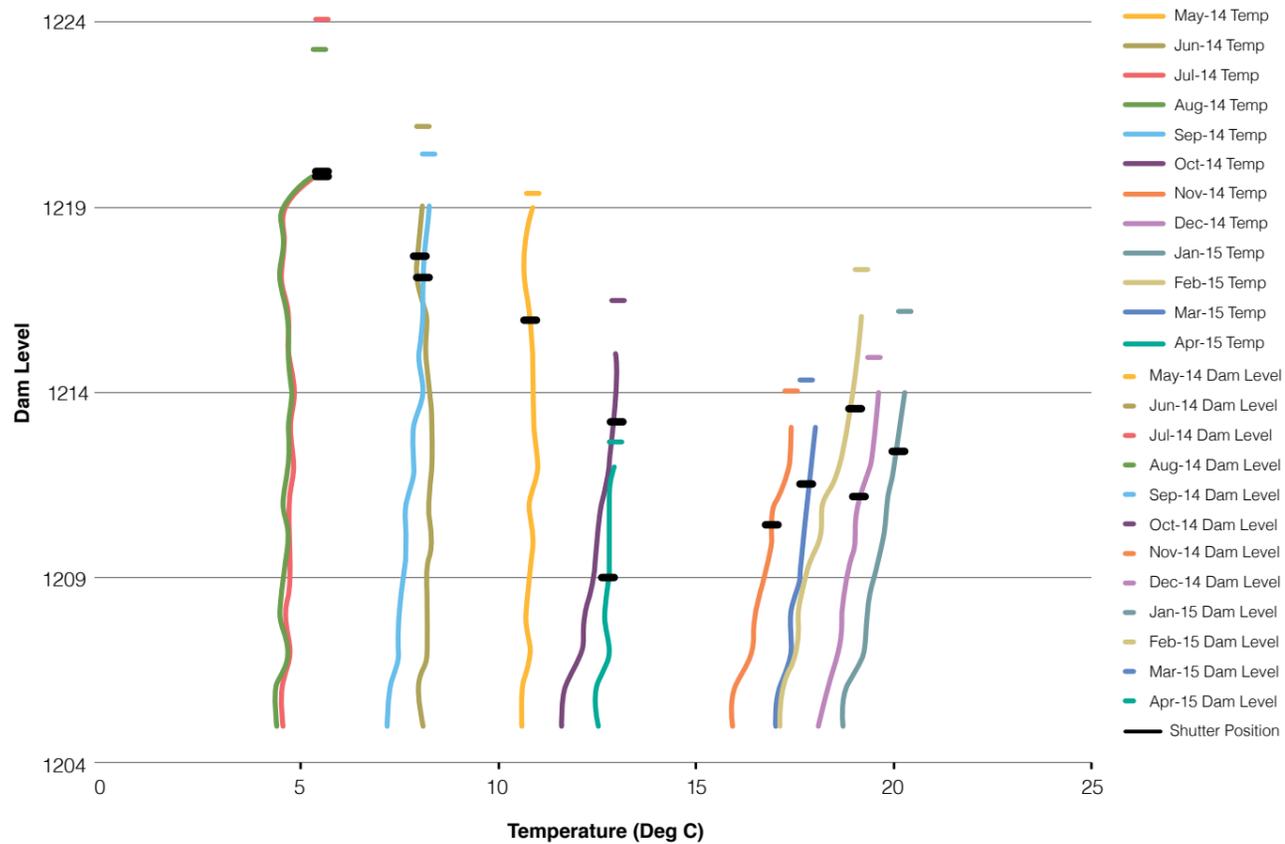
THE TEMPERATURE OF RELEASES FROM TANTANGARA RESERVOIR

The Snowy Water Licence requires the outlet works at Tantangara Dam to be capable of releasing water from above any thermocline in the reservoir. The thermocline is a thin but distinct layer in a large body of water in which temperature changes more rapidly with depth than it does in the layers above or below. Typically, as the summer progresses, the surface waters warm and the deeper waters remain cold. This causes a lack of mixing between the upper and lower layers, which often results in the lower layer having reduced oxygen levels. For these reasons the deeper waters within reservoirs are generally viewed as having undesirable water quality characteristics for releases, hence the requirement for the outlet works to be able to draw from above the thermocline.

The new intake works at Tantangara Dam are located on the upstream face of the dam wall. They comprise a series of 'telescoping' shutters to create a variable level off-take.

Snowy Hydro undertakes temperature monitoring at the intake tower to detect the presence of a thermocline and adjusts the shutter height as necessary. As can be seen in the chart below, a persistent thermocline was not present during the 2014-15 water year.

TANTANGARA DAM INTAKE WATER TEMPERATURES AND LEVEL



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VERIFICATION STATEMENT

Snowy Hydro Limited commissioned BSI to independently verify the data from its Annual Water Report for the 2014-2015 Water Year, specifically, compliance against Required Annual Release targets (RAR's) set under the *Snowy Water Licence* and actual releases made by Snowy Hydro Ltd.

Responsibilities of the Verifier:

BSI was not responsible for the preparation of any part of the report. The audit was conducted using recognised assessment techniques based on ISO19011 with the 2014-2015 Annual Water Report as the principal reference. The audit was a desktop review of Snowy Hydro Limited's water accounting and operating databases, documented procedures and included interviews with operational staff.

Scope:

Numerical values provided in the 2014-2015 Annual Water Report were compared with the required target volumes from the approved Annual Water Operating Plan for the corresponding Water Year and actual releases were compared with a sample of entries from the water accounting databases. Records of maintenance and calibration of equipment used in monitoring water releases were also reviewed.

The verification process reviewed data for reasonableness and where practical checked the order of magnitude, but detailed calculations were not carried out.

Verification Statement:

Based on the data review process applied during the audit, there is evidence to support that the Annual Water Report for the 2014-2015 Water Year is materially correct and is a fair representation of the water operations.

Dr David Holliday
Environmental Auditor
RABQSA Certificate no. 7947694-116404
30 July 2015

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