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To Murray Darling Basin Authority  
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## Comment on the Guide to the Murray-Darling Basin Plan

Snowy River Alliance welcomes the opportunity to comment upon the Guide to the proposed Murray-Darling Basin Plan.

**1. The Snowy River is inextricably linked with the Murray-Darling Basin through the Snowy Hydro Scheme, which continues to divert unsustainable volumes of water from the Snowy River and its montane tributary rivers and streams, west to the Murray and Murrumbidgee Rivers. The Murray-Darling Basin Plan must therefore include the Snowy River and identify sustainable diversion limits for the Snowy River and its tributaries.**

The economic benefits gained by the Murray/Murrumbidgee irrigation communities from the continued diversion of more than 95% of the upper Snowy River since 1967, has come at a severe environmental cost for the ecology and biodiversity of the Snowy River.

The Commonwealth *Water Act 2007* (the Act), s.21 (2) states that the Murray-Darling Basin Plan must: (a) *be prepared having regard to:*

(i) *the fact that the use of the Basin water resources has had, and is likely to have, significant adverse impacts on the conservation and sustainable use of biodiversity; and*

(ii) *the fact that the Basin water resources require, as a result, special measures to manage their use to conserve biodiversity; and*

(b) *promote sustainable use of the Basin water resources to protect and restore the ecosystems, natural habitats and species that are reliant on the Basin water resources and to conserve biodiversity.*

The Snowy River is a Basin water resource that has been used unsustainably for more than four decades (and continues to be used unsustainably) and therefore must be considered in the Plan.

The Act S22 (1) also states that mandatory content of the Basin Plan must include: *A description of the Basin water resources and the context in which those resources are used. The description must include information about (a) the size, extent, connectivity, variability and condition of the Basin water resources.*

The Snowy River is inextricably connected to the Murray-Darling Basin and therefore must be included in the Plan.

According to the Act (s.21 (6)), the Basin Plan must not be inconsistent with the provisions of the Snowy Water Licence. The Snowy Water Licence requires Snowy Hydro Ltd to release a minimum of 1026GL/yr to the Murrumbidgee River and 1062GL/yr to the Murray River. However the Snowy River contributes more than half of this total volume<sup>1</sup>. Such massive diversions from the upper Snowy River into the Murray/Murrumbidgee system have resulted in an environmental catastrophe for the Snowy River.

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<sup>1</sup> Department of Industry, Science and Resources, *The Snowy Mountains Hydro-Electric Authority, Draft Environmental Impact Statement*, June 2000, Fig 4.6

In 1996 The Expert Panel<sup>2</sup> identified that the return of the equivalent of 28% MANF to the Snowy River below Jindabyne Dam was the MINIMUM environmental flow required to restore the river. This figure has not been reviewed since.

In 2000 the NSW, Victorian and Commonwealth Governments signed the Heads of Agreement (followed by legislation in 2002) to restore 21% Mean Annual Natural Flow<sup>3</sup> (MANF) to the Snowy River below Jindabyne Dam within ten years and increased flows to the Snowy montane rivers including the upper Snowy River below Guthega Dam and Island Bend Pondage.

However progress on restoring increased flows to the Snowy River has fallen far short of the legislated targets.

Two years ago, the Snowy Scientific Committee identified<sup>4</sup> that flows to the Snowy River below Jindabyne Dam have remained so low such that the river was in effect on -life-supportø In March this year, the NSW Fisheries Scientific Committee made a proposed determination to list the Aquatic Ecological Community in the Natural Drainage System of the Catchment of the Snowy River in NSW as an ENDANGERED ECOLOGICAL COMMUNITY in Part 3 of Schedule 4 of the NSW Fisheries Management Act 1994.

Following the intergovernmental Snowy agreement announced on 11<sup>th</sup> August 2010 by the then Federal Minister for Water Penny Wong, to pay out the Mowamba Borrowings Account, Snowy River flows below Jindabyne Dam this Water Year 2010-11 will still only be around 6% MANF i.e. far less than the legislated scheduled target increased flow of 15% by June 2009 or 21% by 2012; even further from long-term (un-funded) target of 28% MANF below Jindabyne Dam.

Water for Rivers anticipates obtaining entitlements for the Snowy up to 21% MANF by 2015<sup>5</sup>, however a significant proportion of those entitlements are general security or low reliability, which return little real water to the Snowy except in very wet years. It is unlikely therefore that the Snowy below Jindabyne Dam will ever receive flows greater than 15% on a consistent annual basis. Water for Rivers has faced a tripling of costs since it was established in 2003 due to increased competition for water recovery projects from other government funded water initiatives. Additional funding of \$50 million provided by the Commonwealth in 2007 is less than adequate to ensure that 21% in real water will be returned to the Snowy and the three governments have still not identified either the mechanism or timeline to deliver 28%. The shortfall in funding required by Water for Rivers reflects the lack of real commitment from the governments to restore the ecological health of the Snowy River.

In addition, tributary rivers of the Snowy River downstream of Jindabyne Dam in NSW and Victoria have experienced reduced inflows<sup>6</sup> of between 30-40% since 1970 (i.e. following the completion of Jindabyne Dam in 1967) such that the beneficial effect of the legislated increased flows from Jindabyne Dam, if ever delivered, will be nullified. Further reductions in inflows from predicted climate change impacts in future will compound the problem.

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<sup>2</sup> Erskine, W. et al, 1996, *Expert Panel Environmental Flow Assessment of the Snowy River below Jindabyne Dam*, Snowy Genoa Catchment Management Committee, February 1996.

<sup>3</sup> In contrast to the Snowy legislation, which has only funded the return of 21% to the Snowy River, the NSW Water Management Act 2000 requires between 56-80% of the average annual flow to be retained in other regulated rivers.

<sup>4</sup> Snowy Scientific Committee (2008). *Adequacy of environmental flows to the Snowy River*. Report SSC\_1. Prepared by the Snowy Scientific Committee for the Water Administration Ministerial Corporation, Canberra. October 2008; and Snowy Scientific Committee (2009). *Environmental releases from Jindabyne Dam: Recommendations for 2009-2010*. Report SSC\_2. Prepared for the NSW Water Administration Ministerial Corporation. Canberra. June 2009.

<sup>5</sup> Snowy Scientific Committee presentation Snowy River Day Dalgety 28<sup>th</sup> August 2010.

<sup>6</sup> P.J Wheeler et al, *Morphological Change at the Snowy River Ocean Entrance, Victoria, Australia (1851-2008)*, Australian Geographer, vol 40, no 1, pp1-28, March 2009, p10, p22-23.

In regard to the upper Snowy River catchment above Jindabyne Dam, the Snowy Water Licence requires Snowy Hydro Ltd to make increased flows (as part of the Snowy Montane Rivers Increased Flows schedule<sup>7</sup>) to the upper Snowy River below Guthega Dam (Snowy River Perisher/Rams Flat) from the 2007/08 Water Year, and to the upper Snowy River below Island Bend Pondage (Snowy River Gungahlin) from the 2009/10 Water Year.

However NO environmental flows at all have been delivered to these sections of the upper Snowy River in Kosciuszko National Park. Snowy Hydro Ltd has failed to modify the relevant montane aqueducts as required by the terms of its Licence<sup>8</sup> to enable the delivery of the Snowy Montane Rivers Increased Flows, in this case to the upper sections of the Snowy River.

Instead the annual allocation of Snowy Montane Rivers Increased Flows has been released into the Upper Murrumbidgee (2007/08)<sup>9</sup>, or a combination of releases into the Goodradigbee River below Goodradigbee weir, and into the Upper Murrumbidgee River below Tantangra Dam (in 2008/09<sup>10</sup>, 2009/10<sup>11</sup> and 2010/11<sup>12</sup>). In which case the releases end up back in the Murray/Murrumbidgee system.

In relation to the Eucumbene River, the main tributary of the Snowy River pre-Snowy Mountains Hydro-electric Scheme, we note that this river was never included in the original agreements and legislation to return environmental flows to the Snowy River. The Eucumbene Dam has a base passing flow release capacity of only 6 mgl/d, and no spills have occurred since construction<sup>13</sup> yet the Eucumbene River below the Dam is not scheduled to receive any environmental flow at all. This river is almost completely diverted to the Murray/Murrumbidgee.

**Snowy River Alliance strongly recommends therefore that to comply with the requirements of s21 (2) of the Act the Murray-Darling Basin Plan must include the Snowy River and all its montane tributary rivers and streams and Sustainable Diversion Limits for the Snowy River and its upper or montane tributaries must be identified.**

**2. The Mowamba River**, a tributary of the Snowy River, which has its junction with the Snowy River downstream of Jindabyne Dam, is diverted via Mowamba Aqueduct from Mowamba Weir into Jindabyne Dam. The first environmental flows were returned to the Snowy River on 28<sup>th</sup> August 2002 when Mowamba Aqueduct was de-commissioned permitting the Mowamba River to once again flow down its natural course to the Snowy. However Snowy Hydro Ltd re-commissioned the Aqueduct on 31<sup>st</sup> January 2006, effectively cutting off the Snowy from its surrogate natural headwaters.

The Snowy Scientific Committee has identified<sup>14</sup> the significant role the Mowamba River inflows can play in restoring the upper reaches of the Snowy River below Jindabyne Dam, through contributing colonizing micro-fauna and propagules, water of suitable quality and temperature and adding flow variability. It is evident therefore that the Mowamba Aqueduct must be permanently

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<sup>7</sup> Snowy Water Licence (2002), Schedule 3, Table 1, p62.

<sup>8</sup> Snowy Water Licence (2002) Schedule 3, Part Five, s19.1

<sup>9</sup> Snowy Hydro Ltd *Water Operations Report 2007-2008 Water year*, p19

<sup>10</sup> Snowy Hydro Ltd *Water Operations Report 2008-2009 Water year*, p 19.

<sup>11</sup> Pers. comm. Simon Williams NSW Office of Water 27 May 2010

<sup>12</sup> Snowy Scientific Committee (2010) *Environmental Releases from Jindabyne and Tantangra Dams: Recommendations for 2010-2011*. SSC\_3. Prepared for the NSW Water Administration Ministerial Corporation. Canberra. August 2010.

<sup>13</sup> R. Bevitt et al *Expert Panel Environmental Flow Assessment of various rivers affected by the Snowy Mountains Scheme*, May 1998, Report to the NSW Department of Land and Water Conservation, p56.

<sup>14</sup> Snowy Scientific Committee (2008). *Adequacy of environmental flows to the Snowy River*. Report SSC\_1. Prepared by the Snowy Scientific Committee for the Water Administration Ministerial Corporation, Canberra. October 2008, p26.

de-commissioned so that Mowamba River can once again flow directly into the Snowy, providing a vital contribution to the total<sup>15</sup> legislated Snowy River Increased Flows.

The Snowy Water Inquiry Implementation Outcomes Deed<sup>16</sup> (SWIOID) and the Snowy Water Licence<sup>17</sup> state that the base passing flow with respect to the Snowy River is: *the volume of 9GL per Water Year from Jindabyne Dam PLUS the non-regulated flow past the relevant Works on Mowamba River and Cobbon Creek prior to the Corporatisation Date*, and as such is to be included in the total Snowy River Increased Flows measured below the confluence of the Snowy and Mowamba Rivers.

However, in an apparent oversight, the Commonwealth *Water Act 2007* (Schedule F s5) has contradicted the prior intergovernmental agreement the SWIOID, and the Snowy Water Licence, and has eliminated this non-regulated flow via Mowamba weir from the definition of Snowy River Increased Flows. In effect, the Commonwealth *Water Act 2007* has reduced the long-term Snowy River Increased Flows by between 18<sup>18</sup>-24GL<sup>19</sup>, or 2% Snowy MANF, by excluding the non-regulated flows over Mowamba weir. To exclude the spills, freshes and floods delivered to the Snowy River via Mowamba River from the total volume of Snowy River Increased Flows is not only a breach of the intergovernmental agreements on the Snowy and the Snowy Water Licence but will have a serious detrimental environmental effect on the rehabilitation of the Snowy River. Snowy River Alliance is currently seeking legal advice in relation to this matter.

**Snowy River Alliance strongly recommends that the Commonwealth *Water Act 2007* Schedule F s5 is immediately amended to include the non-regulated flow over Mowamba Weir and Cobbon Creek Weir as part of the total Snowy River Increased Flows, in order to be consistent with the Snowy Water Inquiry Outcomes Implementation Deed and the Snowy Water Licence, as well as the actual environmental objectives of the *Water Act 2007*.**

**Snowy River Alliance also recommends that Mowamba Aqueduct, which currently diverts the Mowamba River into Jindabyne Dam and then to the Murray/Murrumbidgee system, is permanently de-commissioned to return surrogate natural headwaters to the Snowy River.**

**3. The Snowy legislation in 2002 also included funding for Water for Rivers to obtain 70GL/yr for the River Murray.** However the Snowy Water Licence requires (Schedule 3, Part one, s1.2) that the River Murray Increased Flows annual allocation is accounted for as Above Target Water in Snowy Hydro Ltd's storages. Snowy Hydro Ltd has complete discretion over Above Target Water and has only made one release in 2005/06 of River Murray Increased Flows. Up to 30<sup>th</sup> April 2010, 58GL owed the River Murray Increased Flows had been withheld and the total would be much greater now<sup>20</sup>. This is water that was acquired by Water for Rivers, (and funded by the taxpayer), for the environmental benefit of the Murray River, instead the releases have been withheld by Snowy Hydro Ltd for its commercial advantage. It is completely inappropriate that Snowy Hydro's total control of Above Target Water for electricity generation and derivatives trading dictates the release (or non-release) of the River Murray Increased Flows. (Snowy Hydro Ltd's total control of

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<sup>15</sup> Mowamba River flows would contribute approximately 4% MANF in volume towards the 2010 total Snowy River Increased Flows target volume of 21% MANF. The ideal environmental releases to the Snowy below Jindabyne therefore would be a combination of releases via Mowamba weir and Jindabyne Dam

<sup>16</sup> SWIOID 1.1 (6) (a)

<sup>17</sup> Snowy Water Licence s 1.1(8) (a)

<sup>18</sup> Snowy River Flow Response and Modelling Project, *Derivation of staged environmental flow release volumes to the Snowy River downstream of Jindabyne Dam*, DIPNR Feb 2005.

<sup>19</sup> Snowy River Flow Response and Modelling Project, Fact Sheet No 2, 2004.

<sup>20</sup> To date the NSW Office of Water has not updated the Summary of Snowy/Murray entitlements and allocations on its Snowy Initiative website, despite the Water Year beginning on 1<sup>st</sup> May. However based on an environmental allocation ratio of 2:1 Snowy: Murray the total of River Murray Increased Flows withheld would now be approximately 90GL.

Above Target Water has not been in the best interests of judicious water management in general, for either the wider irrigation community or the environment and should be reviewed.)

As it stands the Snowy Water Licence undermines the objectives of *Water Act 2007* to restore the environmental health of the Basin.

**Snowy River Alliance recommends that the Snowy Water Licence be amended to remove or alter this provision of the Snowy Water Licence that permits Snowy Hydro Ltd to store the River Murray Increased Flows annual allocation as Above Target Water over which it has complete discretion. It is imperative that the Licence is amended to ensure that the annual allocation of River Murray Increased Flows is actually released annually for the environmental benefit of the Murray. This will make available to the Murray River an additional and much needed 70GL/yr.**

**4. The Guide to the proposed Basin Plan has only assessed scenarios of returning from 3,000 to 4,000 GL to the environment. The return of 7,600 GL however was identified as most likely to likely to deliver all the environmental objectives of the *Water Act 2007***

The Snowy legislation only ever funded the return to the environment of approximately half the volume (in real terms) of the MINIMUM environmental flow identified in 1996, of 28% below Jindabyne Dam, required to restore the river. The volume of water returned to the Snowy River will be far short of the volume that is required to deliver significant long-term environmental improvement.

**In light of this, Snowy River Alliance recommends that the Murray-Darling Basin Plan must consider all scenarios in the range 3,000GL to 7,600 GL. In particular, the return of 7,600 GL to the environment of the Murray-Darling Basin must be considered, as it is the most likely to deliver real environmental improvements to the Murray-Darling system.**

**Snowy River Alliance would also urge the MDBA to include an assessment of the economic benefits forthcoming from a healthy resilient Murray-Darling River system that would result from the return of 7,600GL to the environment.**

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In conclusion, we wish to reiterate that the diversion of the majority of the water of the upper Snowy River to the Murray-Darling Basin has caused and continues to cause considerable environmental degradation to the Snowy River. The 2002 Snowy legislation only funded the return of 21% MANF to the Snowy River below Jindabyne. In the long-term, that 21% is likely to amount to only 15% in real water released annually on a consistent basis. Even if 21% MANF in real water was released annually below Jindabyne Dam that means nearly 80% of the upper Snowy flow will still to be diverted west to the Murray system. That volume of diversion is the reverse of the environmental flow rules detailed in the *NSW Water Management Act 2000*, which requires between 56-80% of flow to be retained in other regulated rivers. It is also in stark contrast to reductions in diversions recommended in the Guide to the proposed Basin Plan.

The Snowy Water Licence is weighted towards Snowy Hydro Ltd's commercial interests of electricity generation and derivatives trading and does not prioritise the judicious management of the Snowy Scheme water resources in the best interests of the environment of the Snowy River (or the Murray). In its present form the Snowy Water Licence is totally inconsistent with the environmental objectives of the Commonwealth *Water Act 2007* which requires the Basin Plan to promote the sustainable use of ALL Basin water resources. To exclude from the Basin Plan, consideration of the unsustainable contribution the Snowy River and its upper tributaries make to the total available Murray-Darling Basin water resources, is to consign the Snowy River to a virtual Aqua Nullius.

Snowy River Alliance therefore strongly recommends that the MDBA identify and include Sustainable Diversion Limits for the Snowy Scheme and the Snowy River in particular, in its Basin Plan.

Snowy River Alliance suggests that as part of this process the three shareholder governments of Snowy Hydro Ltd agree to set aside the Variations of the Snowy Water Licence, unilaterally given effect by the NSW Government on 1<sup>st</sup> May 2010<sup>21</sup>, in order to develop a Snowy Water Licence which complies with the environmental objectives of the Commonwealth *Water Act 2007*.

The Snowy Water Licence permits unsustainable diversions from the rivers of the Snowy Scheme, in particular the Snowy River and its tributaries, to the Murray/Murrumbidgee Rivers and therefore needs complete revision as part of the review of all water resources of the Basin. The *Water Act 2007* requirement (s21 (6)) that the Basin Plan must not be inconsistent with the Snowy Water Licence simply perpetuates the current unsustainable level of diversion from the Snowy River. Snowy River Alliance recommends instead that the Snowy Water Licence should not be inconsistent with the Basin Plan. To ensure that the environmental health of the Snowy River is restored the Snowy Water Licence must come under the Basin Plan and sustainable diversion limits consistent with the Basin Plan objectives to protect and restore ecosystems and conserve biodiversity must apply.

Snowy River Alliance would welcome the opportunity to discuss these matters at a Stakeholder Meeting.

Yours sincerely  
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<sup>21</sup> The Victorian Government has stated in the *Draft Gippsland Region Sustainable Water Strategy*, Aug 2010, p217, that it is yet to agree the Variations to the Snowy Water Licence proposed by NSW.



Snowy River below Island Bend Dam, Kosciuszko National Park, 7<sup>th</sup> November 2010