Victorian Government Submission 13 October 2017

The Victorian Government maintains its commitment to improving the health of the Snowy River and securing certainty for western river water supplies to support environmental, social, cultural and economic needs and values across East Gippsland and the Southern Murray-Darling Basin.

The 10 Year Review of the Snowy Water Licence (the Review) provides an opportunity for governments to take action on behalf of our communities to ensure the current management arrangements are contemporary, efficient and innovative, and continue to meet the objectives agreed from the Snowy Water Inquiry and corporatisation of the Snowy Mountains Hydro-electric Authority.

INTRODUCTION

The Snowy Mountains Hydro Scheme (Snowy Scheme) is an integrated water and hydro-electric power utility that can store up to 5,300 gigalitres of water originating from the headwaters of the Snowy, Murrumbidgee and Murray river catchments. For Victoria, water stored and released from the Snowy Scheme provides a large volume of environmental flows to the Snowy and Murray rivers and makes a significant contribution to the reliability of Victorian Murray water entitlements. Water released to NSW's share of the Murray and Murrumbidgee rivers also contributes to the water allocation pool of the Southern Connected Basin water market, which provides an important source of water for Victorian water users.

Environmental Flows

Before the Snowy Scheme and Lake Jindabyne were constructed, the Snowy River was notable for its high volume of freshwater, many wide reaches of river and large rapids. The damming of the river's headwaters significantly altered the natural flow regime. The most dramatic change was the loss of high spring flows driven by snowmelt, which, combined with land clearing practices of the time, degraded the health of the river and contributed to sand deposits in its estuary that now closes periodically as a consequence.

Important wetlands on the lower Snowy River include the estuary of the Snowy River and the Lower Snowy River Wetlands. There are also numerous other small wetlands on the floodplains of the Snowy River and Brodribb River (which enters the estuary at Marlo). These high-value wetlands are recognised in the Directory of Important Wetlands.

The Snowy floodplain is an important economic asset, with land used for irrigated horticulture, dairy, fodder production, beef cattle, crop and seed production and aquaculture. The river downstream from Orbost and the estuary at Marlo are also significant recreational assets for boating, fishing and camping.

The Victorian Government was instrumental in securing intergovernmental agreement to increase flows in the Snowy River in response to the impacts the Snowy Scheme was having on the iconic river's health and the important values it supports. The Victorian Government contributed \$150 million towards meeting the recovery targets established under the *Snowy Water Inquiry Outcomes Implementation Deed* (SWIOID), being to return 21 per cent of average natural flows to the Snowy River (212 gigalitres per year) and 70 gigalitres per year to the River Murray within ten years. The first environmental flows were released in August 2002. The water recovery target was achieved in 2012 and the first annual release of 212 gigalitres is occurring this year (2017/18). Victoria has secured its share of recovered water in entitlements held and managed by the Victorian Environmental Water



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Holder. Each year allocations associated with the water recovery are transferred to the Snowy and Murray rivers in accordance with the obligations under the entitlements. Since 2007/08 Victoria has transferred a total of 595 gigalitres to the Snowy Scheme for the Snowy and Murray rivers.

As part of the Snowy corporatisation process, the Victorian Government set aside a 10-year, \$40 million budget for rehabilitation of the Snowy River. The objective for the river rehabilitation program was to improve the ecological health of the Snowy River's lower reaches through an integrated works program to complement the benefits of increased environmental flow releases. This program covered environmental monitoring, willow removal, floodplain restoration, in-stream works, estuary rehabilitation and fish stocking. 2017/18 is the final year of Snowy rehabilitation funding.

The outcomes of these complementary programs have resulted in:

- removal of 99% of invasive willows from the Snowy River catchment in Victoria;
- stock exclusion along the floodplain between the Jarrahmond Gauge and the Brodribb River confluence;
- restoration of remnant and pre-European vegetation types along the lower Snowy River;
- partnership with the Moogji Aboriginal Council to draw on and develop the knowledge of local community;
- woody habitat installed to replace lost habitat and encourage the establishment of instream vegetation; and
- knowledge gained of estuarine and wetland condition and an assessment of potential future impacts.

The environmental releases from the Snowy Scheme to the River Murray contribute to achieving the Murray-Darling Basin Plan outcomes and have been included in associated modelling. A milestone for releases of environmental flows to the River Murray was realised last year, with 100 gigalitres of River Murray Increased Flows (RMIF) made available for environmental managers - the largest volume made available under this entitlement.

Western Rivers releases

Diverting water west for agriculture in the Murray-Darling Basin is a key purpose of the Snowy Scheme.

Victoria is entitled to half of the water released from the Snowy Scheme's Snowy-Murray Development into the River Murray System, while NSW is entitled to the other half as well as all the water released through the Snowy-Tumut Development into the Murrumbidgee system.

In an average year, releases from the Snowy Scheme makes up around eight per cent of the inflows to the River Murray System. Significantly, this proportion increases to around 33 per cent during dry years due to the nature of the release requirements established under the Snowy Water Licence (SWL).

Codifying water arrangements was a key outcome of the corporatisation reforms as it provided the certainty required to underpin commercial investment. It allowed governments to refinance outstanding debts from the construction of the Snowy Scheme and has provided the security and certainty necessary for irrigators, businesses, towns and governments to invest in Victoria's Murray entitlement products and in agriculture right across the southern Murray-Darling Basin. Victoria's Murray entitlements now have a combined capital value of around \$3.5 billion and support Northern Victoria's contribution to Victoria's \$4.9 billion/year irrigated agriculture industry.

10 Year Review

The Review's terms of reference cover three broad categories: increased flow requirements; water release requirements; and administrative obligations. This submission is broadly structured around these categories and also includes recommendations to help guide how the project is managed.

Broadly, Victoria is seeking:

• a greater say in the management of releases from the Snowy Scheme that better reflects its water interests;



- increased transparency and clarity around SWL requirements and operations to remove ambiguity and increase certainty; and
- improved planning and decision-making processes for managing environmental flows and changes to release requirements to the western rivers.

PROJECT GOVERNANCE

The Victorian Government has a long and proud history of effectively managing our water resources and is committed to working closely with the NSW and partner governments on the review.

Collaboration between governments is particularly important given shared interests in the Snowy Scheme and significant investments in water reforms in the Snowy Scheme, Snowy River and Murray-Darling Basin.

Renewed cooperation between governments on the management of Snowy Scheme water resources, starting with this review, will ensure the interests of all communities and environments that depend on this vital resource are represented. It will also ensure governments develop a shared understanding of the issues with the SWL and collectively consider and take responsibility for any management responses.

RECOMMENDATION 1:

- a) NSW Department of Primary Industries Water formally establish clear and transparent project governance arrangements that directly involve the Victorian, Commonwealth and South Australian partner governments.
- b) That these four governments, collectively, provide strategic guidance and oversight for the Review and are responsible for assessing and recommending any proposed amendments to the Snowy Water Licence.

A robust framework for carrying out the Review will provide a strong foundation for achieving positive outcomes. The framework should build on the above recommendation and the consultation requirements legislated in the *Snowy Hydro Corporatisation Act 1997 (NSW)*. It should adopt a wider collaborative process that calls on the expertise of government officials, independent experts, key stakeholders and community representatives, and include a set of agreed overarching principles to guide the assessment of actions.

At a minimum, Victoria believes the Review should be guided by the following principles:

- Actions will seek to achieve, or will not be inconsistent with, the objectives of the SWIOID.
- Actions will have no net material impacts on third parties, including environmental flows, downstream water entitlement holders and power generation.
- Actions will seek to target multiple benefits.
- The Review will be informed by best available information.
- Decisions will consider economic, social and environmental implications at all scales.
- Decisions will be transparent and will consider all stakeholder views.

RECOMMENDATION 2:

The framework for implementing the Review should include a collaborative consultation process with community representatives and independent experts and an agreed set of principles to guide the development of actions.

INCREASED FLOW REQUIREMENTS

The current institutional arrangements for decision-making on Snowy environmental flow releases are made within the framework agreed by the Commonwealth, Victorian and NSW Governments under the SWIOID and given effect under the SWL. They are managed wholly under NSW legislation.

Under these arrangements, Snowy Hydro Limited (SHL) provides the NSW Ministerial Corporation its Annual Water Operating Plan (AWOP), which includes the environmental release strategy, for approval. In developing the AWOP, SHL must consult with technical representatives of the shareholder governments through the Water Consultation and Liaison Committee (WCLC) established under the SWIOID. The NSW Ministerial Corporation may outline a set of preferred monthly environmental release volumes to SHL to be included in the AWOP and may also request daily release volumes.

The original *NSW Snowy Corporatisation Act 1997* established the Snowy Scientific Committee (SSC) to advise the NSW Ministerial Corporation on the regime for environmental flow releases. Following the completion of water recovery projects in 2012, the NSW Government passed the *Snowy Hydro Corporatisation Amendment (Snowy Advisory Committee) Bill 2013* to amend the original Act to replace the SSC with a Snowy Advisory Committee (SAC), with the intent of creating a committee with greater flexibility of membership. However, provisions in the amended legislation to create the SAC have not yet commenced, resulting in no formal forum for Victoria to provide input into environmental release decisions.

This submission includes four recommendations on how management of the Snowy environmental release can be improved as part of the Review.

Improved Consultation and Governance Arrangements for Environmental Releases

Establishing a clear and robust governance and management framework for environmental releases is critical to ensure that partner Governments can determine whether their \$425 million investment in water recovery is delivering outcomes in accordance with the environmental objectives set out in the SWIOID.

Despite Victoria's significant investment in water recovery, there is no formal mechanism for Victoria to have input to decisions for releases of Snowy River Increased Flows. Formal governance arrangements that were put in place following corporatisation in 2002 are no longer functioning, resulting in limited ability for Victoria to input into the pattern and timing of environmental releases from the scheme to support objectives in Victorian reaches of the Snowy River. Victorian agencies are engaged informally and on an ad-hoc basis. This engagement is largely communicative in nature rather than consultative, creating a risk to Victoria's investment in water recovery for the Snowy River. This was evident following changes made by NSW in 2014 to the pattern and timing of environmental releases from the Snowy Scheme with limited engagement with Victoria (discussed further under the improved monitoring section below) and which differed from the approach recommended by the SSC.

Formally establishing the SAC under amended NSW legislation would provide one forum for input. While the committee provides for more flexibility than the previous SSC, the SAC membership does not provide for an independent aquatic scientist and its function does not include advising the NSW Ministerial Corporation on the adequacy of releases and management programs, including consultation, monitoring and research, which was a function of the previous SSC.

Re-establishing the Snowy Water Advisory Government Officials Committee to approve environmental releases would enable partner governments to be actively involved in the planning and use of water recovered under the SWIOID. This would also position governments should the proposed sale of the scheme proceed or if there is a move towards scoping the possible privatisation of SHL as recommended by the National Commission of Audit (2014) and NSW Commission of Audit (2012).



RECOMMENDATION 3:

- a) The NSW Government establish a clear and robust governance management framework for environmental releases to the Snowy River. This includes formally establishing the:
 - i. Snowy Advisory Committee, as provided for in the *Snowy Hydro Corporatisation Amendment* (*Snowy Advisory Committee*) *Bill 2013*; and
 - ii. Snowy Water Advisory Government Officials Committee.
- b) The Snowy Water Advisory Government Officials Committee should be represented by the NSW, Victorian and Commonwealth governments and be responsible for:
 - i. resolving policy issues of common interest relating to the coordinated management of the Snowy River and operation of the Snowy scheme; and
 - ii. reporting back to partner governments on the ongoing outcomes of the joint investment in increased flows in the Snowy River.

Improved Monitoring and Demonstration of Outcomes at a 'Whole of River' Scale

The original monitoring programs, which were designed to assess the effectiveness of increasing Snowy River flows to 21% of average natural flows, have ceased after being funded for ten years. NSW and Victoria undertake separate monitoring programs to assess state-based objectives sought in their respective catchments. Re-establishing a 'whole of river' monitoring program will ensure impacts and/or benefits to all reaches, including the estuary, are captured and that information is collected to support reviews of the original investment decision and facilitate adaptive management to continue to meet the agreed environmental objectives.

For example, an integrated monitoring program including all reaches of the river would provide data on the impact or benefit of changes made to the flow regime by NSW in 2014. The planned pattern of releases from the Snowy Scheme was altered to replicate hydrology of montane reaches. The NSW paper titled *Scaling environmental flow releases in the Snowy River to unregulated snowmelt rivers of the Snowy Mountains* (NSW Office of Water 2013) altered the objective of the flow releases to 'facilitate the rehabilitation and evolution of the Snowy River below Jindabyne Dam into a smaller but healthy river with a size and shape similar to the Thredbo River'. The paper provided a science-based rationale for altering the flow regime based on the volume of water available. A 'whole of river' monitoring program is critical to determine the impact or benefit of the flow release change for all reaches, including the river's floodplains and estuary. Alterations to release patterns such as this may also affect integration of environmental flow management with major river restoration programs in downstream Victorian reaches.

Continued investment in research and monitoring to improve knowledge and adapt flows to achieve environmental outcomes on a 'whole of river' scale, including the estuary, is essential. Monitoring costs are currently not included in the annual fee paid by SHL to NSW. As the need to provide environmental flows is a direct consequence of the Snowy Scheme, a significant proportion of these costs should be met by SHL.

RECOMMENDATION 4:

- a) Partner governments and Snowy Hydro Limited commit to implementing a 'whole of river' monitoring program for the Snowy River that collects and analyses essential data needed to:
 - i. understand the outcomes of environmental flows along the entire length of the river below Lake Jindabyne; and
 - ii. facilitate the adaptive management of Snowy River Increased Flows to ensure they maximise environmental outcomes.
- b) The 'whole of river' monitoring program be funded by Snowy Hydro Limited in recognition the need for environmental flows are a direct consequence of the Snowy Scheme.



Greater Flexibility of Environmental Release Regimes and Operational Risk Management

Current release regimes are set by NSW well in advance with limited ability to make changes during the year. While notice is provided to Victoria of the release pattern, there is little discussion or input on Victorian operational risks particularly around the potential to cause or exacerbate flooding in the lower floodplain and estuary reaches in Victoria. This could occur if environmental water releases coincide with natural high flow events.

Flooding in wet years can impact communities in the lower reaches of the river. Flexibility of release regimes would benefit from an agreed risk management process that could be captured in the licence. This would include consultation with appropriate agencies responsible for managing flood events in the lower reaches of the Snowy River (e.g. Victorian State Emergency Service, Bureau of Meteorology, East Gippsland Catchment Authority and the Orbost community).

The rigid nature of the release regime does not allow for benefits that may arise by adapting releases in accordance with seasonal conditions. For example, in a wet year there may be merit in scaling back releases to carry over water in the Scheme for use in later years. Greater flexibility of releases would also enable environmental water holders to maximise outcomes of releases as well as adaptive management of flows where monitoring results demonstrate that the prescribed regime is not achieving the objectives (or if there are negative impacts).

RECOMMENDATION 5:

The Snowy Water Licence provide more flexibility in the management of environmental releases.

Strengthened Community input into environmental release decisions

The current arrangements do not enable meaningful engagement with Victorian Snowy River communities, including Traditional Owners, over the management of environmental flows in which they have had a significant and long-standing interest. Membership requirements for the yet-to-be-established SAC include two community representatives nominated by Victoria and at least one representative of Aboriginal interests. However, additional representation may be beneficial to achieve greater engagement.

RECOMMENDATION 6:

The planning and management of Snowy River Increased Flows be strengthened to enable meaningful engagement with Victorian communities, including Traditional Owners.

WATER RELEASE REQUIREMENTS

SHL's water release requirements are set out in Schedule 4 of the SWL. Releases from the Snowy Scheme support water allocations against Victorian Murray water entitlements and significant environmental and social values as they are released down the River Murray, especially during drought.

It is crucial that release requirements are well understood by water managers, that release arrangements ensure Snowy Scheme water resources are used efficiently, and that future changes are made within a robust planning and decision-making framework supported by appropriate data.

This submission includes eight recommendations on how management of water release requirements can be improved as part of the Review.

Increased transparency around Snowy Scheme releases and water accounts

A strong understanding about the conditions under which water is released from the Snowy Scheme is necessary for water users and managers to:



- understand the current and future reliability and security of downstream water entitlements;
- ensure water released from the Snowy Scheme is used efficiently by river operators;
- understand and model the implications of proposed changes to Snowy Scheme operations; and
- ensure environmental managers effectively plan for the use of RMIF.

Reliability and security are two key characteristics of any water entitlement and underpin its value. Reliability relates to the amount of water provided to an entitlement on an annual basis and may reduce as a result of drought or climate change. A secure entitlement is one with legal tenure that is certain and protected, with known arrangements for sharing available water during dry and drought years.

The water release requirements set out in Schedule 4 of the SWL are complex and lack public transparency in operation. While there has been some improved visibility of historical release volumes since 2012/12 when SHL commenced publishing annual Water Reports, it remains difficult for water entitlement holders and water market participants to characterise the reliability of their entitlements and for water managers and river operators to plan for future inflows and ensure water released from the Snowy Scheme is used efficiently.

The Review provides an opportunity to simplify SWL water release provisions and improve the amount of information made available to stakeholders to improve confidence in Murray and Murrumbidgee water entitlement products and support efficient water use. Any improvements would need to be careful not to compromise water entitlements and the commercial interests of SHL.

RECOMMENDATION 7:

The Review consider:

- a) opportunities to simplify water release provisions in the Snowy Water Licence; and
- b) committing to working with Snowy Hydro Limited and partner governments to provide additional explanatory information around Snowy Scheme operations and release requirements for water managers, users and downstream communities.

Collecting, providing and analysing water data and system operations information through open and transparent planning processes is vital for governments to make effective water management decisions.

Victoria's water corporations manage the State's bulk water resources in line with rules and conditions specified in bulk entitlements granted under the *Water Act 1989*. Water corporations are required to collect data that enable them to demonstrate they comply with their bulk entitlement obligations and to provide the Minister with this information upon request.

Victorian legislation requires variations to water sharing arrangements to be considered through consultative processes, supported by appropriate technical analysis. This enables stakeholders and decision-makers to understand the implications and trade-offs of any change.

The provision of data is captured in Schedule 4 of the SWL. However, the SWL does not compel SHL to provide data or modelling analysis to support partner government decisions around future changes to water release requirements under the SWL or whether to support investment in system efficiencies. Without this information partner governments are inadequately equipped to make decisions about how to maximise efficiency of water resources in the Snowy Scheme.

RECOMMENDATION 8:

Snowy Hydro Limited be obliged to provide operational data and analysis to governments and downstream water resource managers to be able to understand and model the implications of proposed changes to Snowy Scheme operations arising from proposed changes to water release requirements and/or system efficiencies.



The SWL currently prevents access to RMIF when there is less than 800 gigalitres in the Above Target Water (ATW) account. However, there is some ambiguity as to when this trigger is reached and a lack of visibility for environmental water managers. This makes it extremely difficult for environmental managers to plan for its use.

The SWL should provide clear and transparent access to the volume of water in the ATW account throughout the year, together with clearer guidance on when RMIF is available to be called out. This would allow the environmental managers to better use RMIF to meet flow objectives in the River Murray.

RECOMMENDATION 9:

Snowy Hydro Limited be obliged to provide the NSW Ministerial Corporation and the Water Consultation Liaison Committee members regular forecasts of River Murray Increased Flows availability and accessibility.

Effectiveness of Water Release Requirements

As discussed, codifying water arrangements was a key outcome of the corporatisation reforms and reflecting the 'status-quo' was a significant achievement. It provided a basis from which improvements could be considered and tested in response to future challenges such as a changing climate.

The water arrangements were tested immediately after the SWL was first issued in 2002 due to the Millennium Drought, which had persisted since late 1996, broke low-inflow records between 2006 and 2008 and ended abruptly in 2010 with significant inflows and large floods in parts of the Murray-Darling Basin.

In response to these highly variable weather patterns, the NSW, Victorian and Commonwealth governments reviewed and amended the SWL, which took effect from 4 October 2011. These changes:

- Removed the requirement to release additional volumes of water following a recovery from extreme drought to immediately make good any shortfalls to the Required Annual Releases (RAR), and retain that volume of water for future years.
- Provided for a drought reserve in the Snowy Scheme that can be accessed to support critical human needs in the Murray and Murrumbidgee systems. This will allow drought reserves currently kept in Murray storages to be held in the Snowy instead, freeing up storage capacity for irrigators in the Murray system.
- Provided more certainty around the timing of environmental releases from water savings held for the River Murray. Up to 70 GL is accumulated each year for RMIF and was previously released at the discretion of SHL.
- Allowed SHL to increase releases in excess of the RAR and have these releases treated as an advance against the following years RAR.

The new arrangements essentially sought to maximise both water and energy outcomes by increasing flexibility around when releases must be made.

The new provisions have been in operation for more than five years now and it is timely to review how well the provisions have met their original intent and whether or not they have resulted in unintended consequences on the original components of the RAR, SRIF and RMIF. It is also timely to review how effective the Water Release Requirement components have been over the past 15 years.

RECOMMENDATION 10:

The Review include a technical assessment of the calculation of the Water Release Requirements to identify whether its different components are meeting their intent and providing for the most effective use of available water resources.



Resolution of accounting ambiguities

The SWL does not, and cannot, explicitly define how water should be accounted for each and every accounting component. Typically, ambiguities are discussed and resolved by the WCLC with decisions documented in the AWOP. These decisions are generally accepted by the Ministerial Corporation in approving the AWOP because the NSW government is represented on the WCLC.

The SWL also includes a process to manage circumstances where WCLC does not reach agreement and Ministerial Corporation and SHL ultimately find themselves in dispute.

The number of 'prior decisions', whether by agreement or following a dispute resolution process, documented in the AWOP increases annually. Not only is it becoming unwieldy, these decisions are only available to the WCLC and Ministerial Corporation via the AWOP. The Review should consider how best to capture these decisions in the future, with a view to increasing transparency for interested parties around the calculation of the RAR and availability of increased flows and considering opportunities to streamline the SWL.

RECOMMENDATION 11:

The Review consider how best to capture 'prior decisions of the Water Consultation and Liaison Committee' to increase transparency around release calculations and rationalise the Annual Water Operations Plan and Snowy Water Licence.

The Review also provides an opportunity to consider the outstanding water accounting ambiguities that are either unresolved or captured in the AWOP on a without prejudice basis. This could be done as part of the technical review of the RAR proposed at Recommendation 10.

RECOMMENDATION 12:

The Review be tasked with resolving outstanding water accounting ambiguities and disputes.

General SWL clean-up

The SWL includes numerous one-off starting provisions that are now redundant, mostly related to the requirement to construct works and the Mowamba Borrowings Account. These occupy a considerable number of clauses and their removal would result in a more concise SWL that would be easier to follow.

RECOMMENDATION 13:

The Review rationalise and simplify the Snowy Water Licence by removing redundant provisions, including provisions relating to the Mowamba Borrowings Account and requirements to construct completed works.

Advances of Above Target Water

In February 2016 Murray Irrigation Limited (MIL) publicly announced it had signed a Letter of Intent to negotiate an advance of water from SHL for the 2016/17 water year. The announcement came after a period of dry conditions and forecast extremely low starting water allocations for NSW River Murray entitlements for the upcoming water year. Although the media release did acknowledge the need for regulatory approvals, disappointingly the Victorian Government had yet to be consulted on the proposed concept before it was published.

The surprise announcement resulted in a number of operational and policy implications for Victoria and NSW: The deal only benefited an exclusive group of water users and potentially risked water availability for water users in



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both states. Further, negotiations were being carried out in confidence between commercial parties, neither of whom owned the water being loaned out and borrowed.

Advances are not facilitated by agreed water sharing arrangements established under the SWL or Murray-Darling Basin Agreement. Thus, regulatory approval for the deal required agreement by governments to alter state water sharing arrangements. This is not something the Victorian government takes lightly and is inconsistent with Victoria's entitlement and planning framework, which is underpinned by secure water entitlements, clear consultative processes for changing them and Ministerial intervention only when changes are need to maintain supplies for critical human needs.

Making sure third-parties were not impacted and communicating the private deal was also extremely resource intensive for Victorian water resource managers who were not compensated for their efforts.

Victoria requires the Review to examine the policy effectiveness of the 2016/17 advance and consider whether it has a role in managing water shortfalls in the Murray and Murrumbidgee rivers in the future. This work should also consider advances made during the Millennium Drought, which appeared to form the basis of the 2016/17 proposal but were abandoned by governments due to persisting issues around payback.

RECOMMENDATION 14:

The Review examine the policy effectiveness of facilitating advances of Above Target Water releases to manage shortfalls in the Murray and Murrumbidgee water supply systems.