

10 Year Review of the Snowy Water Licence

Victorian Government Submission
July 2018

The Victorian Government maintains its commitment to improving the health of the Snowy River and securing certainty for River Murray water supplies.

INTRODUCTION

Management of water in the Snowy Scheme is important to Victoria as water stored and released from the Scheme provides environmental flows to the Snowy and Murray rivers and underpins the reliability of Victorian Murray water entitlements.

The 10 Year Review of the Snowy Water Licence (the Review) provides an important opportunity to ensure the arrangements for managing water in the Scheme are contemporary and effective, and continue to meet the objectives of the Snowy Water Inquiry and corporatisation of the Snowy Mountains Hydro-electric Authority.

Victoria acknowledges the commitment of NSW Department of Industry (NSW DoI) to engage and collaborate with Victoria and other partner governments throughout the 10-year review process, and in developing the recommendations presented in the *10 Year Review of the Snowy Water Licence: Draft Report*.

The Victorian Government made its first public submission to the 10-year review in October 2017. It included 14 recommendations, which collectively sought:

- A greater say for Victoria in management of releases from the Scheme that better reflect its water interests;
- Increased transparency and clarity around Snowy Water Licence 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.

The draft review report considers all the recommendations raised in Victoria's initial public submission, with issues either being addressed or a pathway to resolve them provided.

In this second submission, Victoria's feedback is focussed on ensuring the review proposals are delivered in the timelines proposed, and in a manner that will adequately address the issues raised by Victoria. In summary, Victoria's priority recommendations for the review are:

1. Increased transparency around licence operations
2. Development of a detailed implementation program with firm timelines
3. Timely commencement of investigations into increased flows proposals
4. Greater flexibility for environmental release regimes
5. More effective water release requirements
6. Review cloud seeding accounting arrangements
7. Timely establishment of the Snowy Water Advisory Government Officials Committee

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INCREASED TRANSPARENCY AROUND LICENCE OPERATIONS

The 10-year review draft report states that transparency issues were raised in 11 of the 24 submissions received, indicating it is a priority for stakeholders. The review proposes a number of recommendations to increase transparency, primarily through increased public reporting and through improved collaboration with downstream water managers and users. Victoria strongly supports the implementation of proposed actions to increase transparency, particularly where they provide water managers with timely information that can be fed into allocation determinations, for environmental planning or where it has the potential to improve coordinated management of the different water supply systems. Increased transparency and reporting will also help to improve the community's understanding of how the licence operates and how it interacts with environmental outcomes.

All administrative amendments to the licence proposed in the draft report will improve clarity around the licence and Snowy Hydro Limited (Snowy Hydro) operations, and consequently support increased transparency. In particular, Proposal 1A, which recommends Snowy Hydro be obliged to prepare a public Annual Water Operating Plan (AWOP) should help address community, water manager and government concerns about how Snowy Hydro is using water in the Scheme. The effectiveness of a public AWOP will be dependent on both its timely release and the inclusion of targeted and accessible information. Victoria will work with NSW DoI and Snowy Hydro to ensure the timing and content of the public AWOP meets the needs of all stakeholders to adequately address existing concerns. While some commercially sensitive information may not be appropriate to be published, Victoria expects there to be clear justification about why any desired information needs to be excluded from a public AWOP. Details of the information to be reported by Snowy Hydro should be clearly documented to ensure consistent and useful information is available into the future.

Victoria also considers the establishment of an independent expert panel and the re-establishment of the Snowy Water Advisory Government Officials Committee as key actions that will support increased transparency and compliance. Victoria's feedback around these issues is further detailed below.

Independent review of Snowy Hydro and NSW's performance

Proposal 21 of the review recommends the procurement of an independent expert panel to review Snowy Hydro's performance in meeting the conditions of the licence and the NSW government's performance in administering the licence. The panel's report will be fed into the development of the final 10-year review report, making the panel crucial to addressing the issues identified in the review. Victoria strongly supports the establishment of an independent panel to provide increased transparency about licence operations and governance. The panel's establishment will assist in building public and government confidence regarding Snowy Hydro's compliance with licence obligations and in determining whether NSW DoI has the systems in place to adequately monitor and enforce compliance.

It is important that the panel consists of suitably qualified and independent members, with a mix of interests and jurisdictional backgrounds. To ensure the panel is set up to make an objective, independent assessment that provides the level of transparency around licence operations that stakeholders are calling for, the terms of reference for the inter-jurisdictional working group should include the role of endorsing the expert panel members and the panel's terms of reference. The inter-jurisdictional working group is made up of representatives from partner Snowy governments including the Department of Environment, Land, Water and Planning (DELWP), and was established by NSW DoI, to provide advice on the review. This working group provides an existing, cross jurisdictional mechanism to ensure Victoria and other partner governments have endorsed the panel members and the final terms reference.

RECOMMENDATION 1:

That the following draft Review proposals be undertaken as early high priority actions:

- (i) Implementation of all proposed administrative licence amendments, in particular, the requirement for Snowy Hydro to prepare and release in a timely manner an annual public AWOP to address the

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transparency concerns raised by many stakeholders

- (ii) Ensure the terms of reference for the inter-jurisdictional working group include endorsement of the independent expert panel members and its terms of reference to review Snowy Hydro and NSW performance in relation to administering the licence.

DEVELOPMENT OF A DETAILED IMPLEMENTATION PLAN WITH FIRM TIMELINES

Victoria supports the draft proposal to implement the final review recommendations in three distinct phases. Running these concurrently will ensure the outcomes of the review can be delivered in a timely manner. Victoria requests NSW DoI make the proposed administrative amendments to the licence immediately after the final review report is published since they do not need to be tied to the completion of the more complex investigations outlined in the proposed work plan.

The report states that a detailed implementation plan covering each of the recommendations coming out of the review will be included in the final report, with the expectation that the full work program will be implemented by December 2020. Victoria expects to be closely engaged in implementing the review recommendations and will work closely with NSW DoI to ensure that the proposed implementation plan is adequately resourced to meet the proposed timeline. Victoria expects the final review report to provide sufficient information about the planned implementation of its recommendations to provide all stakeholders with clarity about:

- The timeframe for implementing the proposed administrative amendments to the licence
- The timeframe for completion of each investigation
- The assignment of roles and responsibilities for implementation of each recommendation
- Opportunities for stakeholder input during the implementation period
- The resourcing required to undertake the proposed investigations.

Overall Victoria supports the specific investigations and proposals outlined in the draft review report. Priority areas and further points of clarification are discussed in more detail throughout the remainder of this submission.

RECOMMENDATION 2:

That NSW DoI actively consult with DELWP in developing the detailed implementation plan to accompany the final review report.

TIMELY COMMENCEMENT OF INVESTIGATIONS INTO INCREASED FLOWS PROPOSALS

Victoria is supportive of the proposals contained in the draft review report regarding the enhancement of the various Increased Flow provisions in the Snowy Water Licence to ensure that the agreed outcomes of the 2002 suite of Snowy Water Agreements are being fully achieved. The Victorian, NSW and Commonwealth governments committed to achieving these outcomes by signing the Heads of Agreement 2000, which prescribes the environmental objectives for the Snowy River and the Snowy upper montane rivers to improve the habitat for a diverse range of plant and animal species by a combination of:

- *improving the temperature regime of river water;*
- *achieving channel maintenance and flushing flows within rivers;*
- *restoring connectivity within rivers for migratory species and for dispersion;*
- *improving triggers for fish spawning; and*
- *improving the aesthetics of currently degraded riverine environments.*

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These objectives are further complemented by an objective to maintain and improve environmental flows for the River Murray.

The Heads of Agreement state that these objectives will be achieved by securing:

- total flows equivalent to 21% of average natural flow (ANF) in the Snowy River;
- increased flows equivalent to 150 gigawatt-hours per annum of foregone electricity generation in the Snowy montane rivers, including the upper Murrumbidgee River;
- dedicated environmental flows allocated to the River Murray of 70 gegalitres (GL) per annum.

These environmental objectives and target flows are reiterated in the Snowy Water Inquiry Outcomes Implementation Deed (SWIOD), which is the legal instrument signed by the Victorian, NSW and Commonwealth governments giving effect to their agreement on securing these outcomes.

To build on positive progress to date in securing these targeted flows, Victoria strongly supports the proposal to undertake as a matter of high priority, detailed investigations into the operation of the existing 'increased flows' provisions for SRIF, RMIF and the Mowamba River. This is with a view to identifying options to improve their operation; so that the agreed objectives sought by the parties through the 2002 suite of Snowy Water Agreements can be fully achieved.

Delivering Long-term Average Snowy River Increased Flows (SRIF)

Achieving 21% of Average Natural Flow (ANF) implies that in some years, more than 212 GL will need to be released to the Snowy River just as in some years there will be less, depending on variable annual allocation volumes. The target of 21% ANF outlined in the Heads of Agreement 2000 is reiterated in section 7 of the SWIOD, which identifies the Stage 3 target for SRIF as an average annual flow of 212 GL per water year in addition to base passing flows. The draft report indicates that operationalisation of this intent is constrained by Clause 5 Annexure 1 of the SWIOD, which outlines the preconditions on Snowy Hydro delivering more than 212 GL in any one year. These imply that compensation is payable for delivery above 212 GL and creates an anomalous situation, with separate provisions of the SWIOD pulling in different directions to constrain the full use of available SRIF allocations.

The licence obliges Snowy Hydro to release all water recovered and allocated to the relevant increased flow account. In 2017/18, SRIF was allocated 214.334 GL. This was the first time that allocations for SRIF were above the 212 GL. However, Snowy Hydro withheld 2.334 GL of the full allocation on the premise that releases above 212 GL would trigger compensation for Snowy Hydro.

Constraining the achievement of 21% ANF for the Snowy River through this action is inconsistent with the agreed intent of the NSW, Victorian and Commonwealth Governments in entering into the 2002 suite of Snowy Water Agreements, along with the obligations on Snowy Hydro arising from these agreements. Victoria is supportive of the proposal outlined in the draft report to investigate the operation of the SRIF 'increased flow' provisions, and requests that it be identified as a high priority action in the proposed work plan. As part of this investigation, Victoria expects the ambiguities in arrangements to be considered in light of governments investing in water recovery to achieve 21% ANF for the Snowy River.

River Murray Increased Flows (RMIF)

The draft report notes a number of submissions (including the October 2017 submission by the Victorian Government) suggest that current arrangements governing the availability and accessibility of RMIF allocations are constraining its full use. Current arrangements for accessing RMIF require investigation to determine whether they align with the intent of the 2002 suite of Snowy Water Agreements. This includes evaluating the effectiveness of the 2011 licence amendment to introduce a mechanism for environmental water holders to call out RMIF when the volume of water in the net Above Target Water account exceeds 800 GL. Victoria requests that the evaluation of current arrangements for storage and management of RMIF be identified as a high priority action for the proposed work plan. Victoria expects that arrangements should enable environmental water managers access to RMIF at times that will enable it to contribute to environmental objectives expected when governments committed to the agreed outcomes in 2002.

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Mowamba River Investigation

The provisions of SRIF through a combination of flows from the Mowamba River and releases from Jindabyne Dam provide an opportunity to improve the health of the Snowy River through increased natural flow variability, appropriate temperature regulation and increased organic matter for improved ecological productivity. Victoria is supportive of this proposal and requests that it be identified as a high priority action for the proposed work plan.

RECOMMENDATION 3:

That the following draft review proposals be identified as high priority actions under the proposed work plan and also that indicative timeframes be set for their timely completion:

- i. Proposal 8: identified agencies work to ensure governments identify and address any remaining impediments to delivering the full 21% average natural flow down the Snowy River in accordance with the agreed outcomes of the 2002 suite of Snowy Water Agreements;
- ii. Proposal 11: identified agencies investigate current arrangements for accessing River Murray Increased Flows to determine whether they meet the intent of agreed outcomes of the 2002 suite of Snowy Water Agreements, including making water available at the times suitable for environmental water managers; and
- iii. Proposal 7: identified agencies complete the Mowamba River investigation in a timely manner.

GREATER FLEXIBILITY OF ENVIRONMENTAL RELEASE REGIMES

The draft report includes a discussion on improving the flexibility of delivering increased flows for the Snowy River. This includes consideration of increased flexibility of flow delivery and allowing SRIF to be carried over from one year to the next, which is a characteristic of held environmental water within the southern Murray-Darling Basin. The draft report suggests that the value of carryover for SRIF is less evident as all available allocation has been necessary to support the current management focus, leading to little surplus available for carryover. However, the management focus referred to does not include objectives sought in the estuary and lower part of the river. Objectives for Victoria include improving recruitment conditions for native fish species, such as Australian Bass and estuary perch, which would benefit from improved flexibility of flow delivery including potential to carryover water.

Monitoring data from the lower river reaches and estuary indicate the current flow regime is insufficient in magnitude and duration to enable recruitment of these key species, which require higher flows every 3 – 5 years to lower the water temperature and trigger spawning. A recent assessment found that the strength of recruitment for Australian Bass and estuary perch is positively related to higher flows and cooler water temperatures in spring. Having greater flexibility of releases to achieve the required magnitude, volume and duration of flows that trigger or extend fish migration and spawning events would be beneficial to these species at critical times for recruitment. Higher flows would also contribute to more consistent achievement of three of the five over-arching environmental objectives for the Snowy River as outlined in the SWIOD, namely:

- *improving the temperature regime of river water;*
- *restoring connectivity within rivers for migratory species and for dispersion; and*
- *improving triggers for fish spawning.*

Greater flexibility of when releases are made, including carrying water over from one year to the next, would enable adaptive management of flows where monitoring results to date demonstrate that the current regime is not achieving targeted objectives. Victoria's position is that the licence should provide for SRIF allocations to carryover from one year to the next and greater flexibility of flow delivery within years. Further investigation into enabling this should be undertaken as part of this review.

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RECOMMENDATION 4:

The proposed Work Plan include opportunities to improve flexibility in the management of environmental releases within the water year, and the provision to carry over SRIF allocation from one year to the next.

MORE EFFECTIVE WATER RELEASE REQUIREMENTS

The obligations on Snowy Hydro to release water to the western rivers (Murray and Murrumbidgee) set out in Schedule 4 of the licence are intended to benefit both electricity generation and downstream water interests under a variety of circumstances. Victoria is concerned that due to changing climate, water use patterns in these river systems and electricity generation drivers, the arrangements set out in the licence may not be working as effectively as intended. For this reason, Victoria supports the investigations NSW DoI has proposed in the work plan to explore the effectiveness of key water release mechanisms. This includes the recommendations to review:

- Dry inflow sequence volume (DISV) (proposal 12)
- Relaxation volume (proposal 13B)
- Flexibility and pre-releases (proposal 14B)
- Spill compensation mechanisms (proposal 15)
- Early season release commitment (proposal 17)
- Drought and DISV reserve accounts (proposal 18)
- Sharing evaporation (proposal 19).

These mechanisms work in conjunction with each other and should provide certainty for downstream water entitlement holders, including water security during drought periods, minimising the risk of flooding and providing sufficient flexibility for Snowy Hydro to operate competitively within the National Electricity Market. These objectives are all important to Victoria, and this review provides a timely opportunity to ensure the licence arrangements are effective in achieving this purpose.

It will not be possible to adequately assess any of these mechanisms on their own, given the inter-dependencies between them all. Victoria requests that these individual investigations be undertaken as a single investigation with consideration for how the different components can and should harmoniously interact.

The issues relating to these release mechanisms are complex and the investigations will require significant resourcing and effort. As these mechanisms have significant potential impact on releases to the Murray River, the Victorian Government expects to be properly engaged, along with community stakeholders, in the undertaking these investigations.

Data to support investigations recommended in this review

The review identifies the importance of data and modelling to support decision making. The licence does not currently require Snowy Hydro to provide data to support future variations to the licence (including possible variations through this review). Victoria also notes that the draft review does not propose changes to the licence to require the provision of data by Snowy Hydro.

Proposal 20 in the review states that DoI Water, Snowy Hydro, the Water Consultation and Liaison Committee (WCLC) and Water NSW will collaborate to improve modelling capability. Victoria expects that many of the proposed investigations will rely on operational data from Snowy Hydro and without this information it will not be possible to make informed decisions based on analytical tools and robust evidence.

To ensure the proposed work plan can be implemented effectively Victoria requests that NSW DoI engage with Snowy Hydro during the development of the implementation plan to confirm what information it has available to support the proposed investigations into the various water release mechanisms referenced above and as part of

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this, gain a commitment from Snowy Hydro that any relevant information will be made available to assist these investigations.

RECOMMENDATION 5:

That all the draft proposals to investigate key water release requirement provisions (proposals 12, 13B, 14B, 15, 17 and 19) be identified as high priority actions under the proposed work plan and that:

- (i) These investigations be conducted as a package in conjunction with each other
- (ii) A binding commitment is sought from Snowy Hydro to make available any relevant information and data it holds, to support these investigations

REVIEW CLOUD SEEDING ACCOUNTING ARRANGEMENTS

Snowy Hydro has been investing in a cloud seeding program since 2004 on the basis that it creates additional water that can be used to generate electricity. A key driver for this investment is understood to be to create additional Above Target Water to increase generation capability at times that suit Snowy Hydro.

The licence is silent on accounting arrangements for any Scheme inflow improvements resulting from the cloud seeding program. However, since 2016/17 inflows to the Snowy Scheme resulting from Snowy Hydro's cloud seeding program have been recognised in the Above Target Water accounts. WCLC supported a trial of these arrangements on the basis of the extensive independent, peer-reviewed scientific research undertaken to determine a method of calculating the increase in inflows to the scheme as a result of Snowy Hydro's cloud seeding program (<https://www.snowyhydro.com.au/our-energy/cloud-seeding/scientific-research-papers/>). In 2017/18 cloud seeding contributed 16 GL of inflows to the Above Target Water accounts. Victoria expects a review of this trial to be conducted in 2020/21 with a view to formalising and codifying actions in the licence.

Victoria requests that NSW commit to a review of the trial cloud seeding accounting arrangements as part of the proposed Work Plan. This review should be undertaken in the second half of 2020 to incorporate lessons from the 2019/20 water year. Such a review should consider how the arrangements have interacted with other components of the licence, and if appropriate, recommend formalising agreed accounting arrangements for cloud seeding in the licence.

RECOMMENDATION 6:

The proposed Work Plan include a review of the cloud seeding accounting arrangements, to be completed by December 2020.

TIMELY ESTABLISHMENT OF THE SNOWY WATER ADVISORY GOVERNMENT OFFICIALS COMMITTEE

The review commits to re-establishing the Snowy Water Advisory Government Officials Committee to jointly coordinate water management in the Snowy Mountains and ensure SWIOID commitments continue to be met, as intended by the NSW, Victorian and Commonwealth Governments.

Victoria requests the early establishment of this Committee and requests NSW DoI commit to the establishment of the Committee with defined terms of reference within three months of the release of the final review report. This would ensure there is an effective avenue for resolution of stakeholder concerns relating to issues beyond the scope of this review.

RECOMMENDATION 7:

That the NSW Government commits to establish the Snowy Water Advisory Government Officials



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Committee with a defined terms of reference within three months of the release of the final review report.