



Office
of Water

Proposed variations to the Snowy Water Licence

Revised requirements for release of water accumulated
under dry inflow sequence during drought years



Leading policy and reform in sustainable water management

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The NSW Office of Water manages the policy and regulatory frameworks for the State's surface water and groundwater resources to provide a secure and sustainable water supply for all users. The NSW Office of Water also supports water utilities in the provision of water and sewerage services throughout New South Wales.

Proposed variations to the Snowy Water Licence – Revised requirements for release of water accumulated under dry inflow sequence during drought years

June 2011

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Background Information

Snowy Hydro Limited (SHL) was issued with a Snowy Water Licence (the Licence) on 30 May 2002 under the *Snowy Hydro Corporatisation Act 1997 (The Act)*. The Licence defines SHL's water rights and obligations.

The NSW Office of Water (the Office) along with the Victorian and Commonwealth Governments realised a need to amend parts of the licence in light of the extreme drought and the above average rainfall in recent times.

Under the Clause 26 (1) (d) of the Act, the licence may be varied by the Water Administration Ministerial Corporation (WAMC) (Currently the NSW Office of Water) for any special purpose for which the WAMC considers that a variation is necessary. As part of this, the Office is now undertaking a public consultation process and inviting submissions on the proposed variations to the licence with are set out in this document.

Why variations to the licence are required

Under the current licence, when inflows to the Snowy Scheme fall below the lowest inflows observed prior to the issue of this Licence (the "design drought" upon which the Snowy Scheme was based) a "Dry Inflow Sequence Volume" (DISV) is calculated. The DISV represents the reduction in the Required Annual Release (RAR) to the Murrumbidgee and/or Murray Valleys as a result of a sequence of inflows being lower than the "design drought". In a succession of dry years the DISV can accumulate.

Due to the extent and severity of the recent drought, the cumulative DISV became a substantial volume. At the end of the 2009/10 water year, the cumulative DISV over the four year period since 2006/07 stood at 481 gigalitres for the Murrumbidgee Valley, and 784 gigalitres for the Murray Valley.

Under the current provisions of the Licence, all accumulated DISV must be "repaid" as soon as inflows to the Snowy Scheme recover sufficiently to allow it. Releasing this volume in addition to the RAR in 2010-11 would exceed the capacity of the storages downstream of the Snowy Scheme. This could result in extended periods of unseasonal high flows downstream of the dams.

The Office has been negotiating with key stakeholders to remove the requirement to release these volumes at a time when they provide no immediate environmental benefit nor contribute to water availability for future consumptive use.

Proposed variation to the Snowy Water Licence

The variations proposed by the Office cover five key areas:

1. The removal of the requirement to release, as soon as the inflows to the Snowy Scheme allow, of any accumulated Dry Inflow Sequence Volume (DISV).
2. The establishment of a "Drought Account" for each valley: 150 gigalitres for the Murrumbidgee Valley and 225 gigalitres for the Murray Valley. The water in these accounts can be used if inflows again reach critically low levels. The accounts are credited with water when a recovery occurs following a period when a DISV is triggered (and at other times at the discretion of the NSW Office of Water).
3. An option each year to call out the water savings that are kept within the Snowy Scheme for environmental flows in the Murray Valley, known as River Murray Increased Flows (RMIF). At present, release of RMIF to the Murray River only occurs when Snowy Hydro Limited chooses

to make releases greater than the Required Annual Release. To date very little of the volume recovered since 2002 has been released. This is not a component of the cumulative DISV.

4. An option each year for SHL to release water in excess of the Required Annual Release (also known as “Flexibility Release” or “Flex”) and have the additional release treated as an early delivery of the next year’s Required Annual Release. Currently, any such releases are treated as a release of “Above Target” water, which is water not required to be released to meet the Required Annual Release.
5. A requirement for SHL to release some of their Above Target water if any Flexibility Release they make results in additional release or spill of water from downstream storages in the following water year and does not contribute to consumptive use. This is also known as “wet sequence protection”.

The majority of the proposed variations are in Schedule Four of the Licence that describes releases to the Murray and Murrumbidgee Valleys. Further explanation of the proposed key variations is provided below.

(1) Requirement to Release Dry Inflow Sequence Volume

As inflows to the Snowy Scheme improved in 2010/11, the current Licence provisions required Snowy Hydro Limited to release both the normal Required Annual Release, and the accumulated DISV from the previous four years. At the same time inflows to the storages downstream of the Snowy Scheme in the Murray and Murrumbidgee Valleys were also much higher, and these storages were quickly filled. This resulted in some forced release of water through the year from the storages below the Snowy Scheme at times that were not useful for consumptive water users.

The Licence currently requires any DISV to be released as soon as inflows to the Snowy Scheme allow it. For a small amount of DISV and modest recovery conditions, these arrangements were considered reasonable. However, the unprecedented low inflows over the last decade or more have been significantly lower than the “design drought”, and a large DISV accumulated over four years to 2009/10. In addition, the extremely wet conditions experienced during the 2010/11 water year resulted in difficulties in providing additional releases as storages downstream of the Snowy Scheme became full.

With further DISV still to be delivered, there is a clear need to vary the current Licence to provide for a better outcome for consumptive water users and power generation. The variation proposed here is to set aside the requirement to release any DISV that has occurred in previous water years. This will still require releases from the Snowy Scheme up to the Required Annual Release wherever possible.

However, any additional release of water due to accumulated DISV from previous water years will now be retained within the Snowy Scheme to support the reliability of future Required Annual Releases and to establish Drought Accounts.

The key proposed variations that relate to this change are to clause 12 of Schedule Four.

(2) Establishment of Drought Accounts

During the recent drought, supply of water for critical human needs, intensive industry, stock requirements, and permanent plantings was at risk, and a range of contingency measures were required to ensure ongoing supply of water for these purposes. To better provide for these important water uses in future droughts, there is now a recognised need for some additional reserves in the Murray and Murrumbidgee Valleys.

If additional reserves can be maintained in the highest storages, evaporation can be minimised, and the benefits of the reserves in future droughts can be maximised. In addition, these reserves would not need to be maintained in the storages downstream of the Snowy Scheme, and any impacts to water users can also be minimised.

For these reasons, it is proposed that two “Drought Accounts” be established within the Snowy Scheme: one for the Murray Valley, and one for the Murrumbidgee Valley. These accounts would be credited with water whenever a DISV has accumulated from previous years, and there is a subsequent improvement in inflows to the Snowy Scheme that would allow the DISV to be “repaid”. That means whenever there would previously have been a release of DISV required under the Licence (in addition to the normal Required Annual Release), water would instead be credited to the Drought Accounts. By crediting the Drought Accounts at this time, the normal Required Annual Release volume from the Snowy Scheme would not be affected. It is proposed that both accounts could also be credited with Below Target Water upon request by the Office.

These accounts would hold up to 225 GL in the Murray Valley, and up to 150 GL in the Murrumbidgee Valley, and could be called upon as additional releases from the Snowy Scheme when needed. In the Murray Valley, this water would be set aside equally by NSW and Victoria, and would support the conveyance requirements of water for critical human water needs. The proposed variations also include a trigger for use of the Drought Accounts, being a shortfall in water available for conveyance (transmission loss) needs in the Murray River to allow Critical Human Water Needs to be met, and a high security allocation below 50% in the Murrumbidgee Valley.

The key proposed variations that relate to this change are to clauses 10, 12, and 16 of Schedule Four.

(3) Call Out Provision for River Murray Increased (Environmental) Flows

Upon the corporatisation of the Snowy Scheme, the NSW, Victorian, and Commonwealth Governments collectively committed \$425 million to pursue 282 gigalitres of water savings and water purchases in the Murrumbidgee Valley, the Murray Valley, and the Victorian Murray tributaries. These savings would then be used to offset reductions in the Required Annual Releases from the Snowy Scheme. This water would then be provided from the Snowy Scheme for environmental flows to the Snowy River (212 gigalitres), and to Murray River (70 gigalitres). The water for environmental flows in the Murray Valley, known as River Murray Increased Flows (RMIF) is released whenever Snowy Hydro release more water than the Required Annual Release in any year.

Since then water recovery through savings and purchase has been occurring, and water savings have been achieved each year for release to the Snowy and Murray Rivers. However, during the recent drought, it has also become clear that there can be long periods where no release of RMIF occurs. This was also a period where the need for high reliability environmental water was particularly high. To address this issue the variations to the Licence propose to include a call out provision for RMIF that has accumulated within the Snowy Scheme.

The key proposed variations that relate to this change are to clause 10.4 of Schedule Four.

(4) Increased Flexibility for Releases from the Snowy Scheme

During the drought a number of short term agreements were made between SHL and irrigators in the Murray and Murrumbidgee Valleys, to help reduce the impacts of the drought. As part of these arrangements SHL was allowed “flexibility” releases, in which releases beyond the Required Annual Release in a water year were accounted as early delivery of the following year’s Required Annual

Release. This allowed SHL to make such releases without using its discretionary “Above Target Water”.

Above Target Water is water that flows into the Snowy Scheme at a time when it is not needed to provide Required Annual Releases through a repeat of the Design Drought. That is, the Scheme’s storages are above the “target” storage level when the inflows occur. This water is stored and released by SHL at their discretion, and is only released the Required Annual Releases have been made, and SHL makes further releases in any water year.

The variations to the Licence propose that SHL be permitted to make up to 200 gigalitres of releases in addition to the Required Annual Release in any water year to each of the Murray and Murrumbidgee Valleys. These additional releases (“Required Annual Release Pre-Release Volumes”) would be accounted as an early release of the following year’s Required Annual Release, rather than as Above Target Water.

The key proposed variations that relate to this change are to clauses 12, and 13 of Schedule Four.

(5) Wet Sequence Protection with Increased Flexibility for Releases

Importantly, it is also proposed that these “flexibility” releases would revert back to being accounted as Above Target Water if they result in additional spill or pre-release of water from storages downstream of the Snowy Scheme. In this way downstream users will have protection in wet sequences from the loss of water through additional spill and pre-releases from the storages downstream of the Snowy Scheme.

The key proposed variations that relate to this change are to clause 13 of Schedule Four.

Table 1 provides the details of all the proposed variations. It should be noted that most of the variations listed in Table 1 are minor variations resulting as a consequence of the significant proposed variations above.

Submissions

The Office is inviting the public to make written submissions on the proposed variations to assist in the revision. The submissions will be considered in the preparation of the final variations to the licence.

The closing date for written submissions is Friday 15 July 2011.

Submissions should be clearly marked “Submission to revision of Snowy Water Licence”.

Submissions should be forwarded:

By post to: Snowy Licence Revision
 Corporate Licensing Unit
 NSW Office of Water
 PO Box 323
 Penrith NSW 2750

By fax to: (02) 4729 8141

By email to: information@water.nsw.gov.au

Inquiries about the revision should be directed to 1800 353 104

Viewing the documents

The licence and related material can be viewed and downloaded from the NSW Office of Water website at www.water.nsw.gov.au under Water licensing>Corporate licences>Snowy Hydro Limited.

The licence and related material may also be viewed at the following locations:

NSW Office of Water

Head Office

Level 18, 227 Elizabeth Street
Sydney NSW 2000
Tel: (02) 8281 7777

Penrith Office

Level 4, 2-6 Station Street
Penrith NSW 2750
Tel: (02) 4729 8138

Cooma District Office

26 Soho Street
Cooma NSW 2630
Tel: (02) 6452 1455

Table 1: Variations proposed by the NSW Office of Water, June 2011

Section	Page Number	Proposed variation
1. DEFINITIONS AND INTERPRETATION		
1.1 Definitions		
(1) "Above Target Water"	1	After ".....in subsequent year" <i>insert</i> : and: (a) includes in the case of the Snowy-Murray Development water in the River Murray Drought Account and in the case of the Snowy-Tumut Development water in the Murrumbidgee River Drought Account; but (b) excludes water in the Snowy-Murray Development DISV Reserve Account and water in the Snowy-Tumut Development DISV Reserve Account.
(6) "Assign"	1	Renumber (6) "Assign"..... to (10) "Assign".....
(7) "Authorised Officer"	1	Renumber (7) "Authorised Officer"... to (11) "Authorised Officer".....
New Sections	1	After (5) "Annual Water Operation Plan" <i>insert new sections</i> : (6) "Applied Snowy-Murray Development DISV Reserve Account Volume" means, with respect to each Month, the lesser of: (a) the volume by which (if any) the Dry Inflow Sequence Volume for the Snowy-Murray Development calculated under clause 8 of Schedule Four exceeds the volume of the Dry Inflow Sequence Volume for the Snowy-Murray Development calculated as at the commencement of March in the previous Water Year under clause 8 of Schedule Four ; and (b) the balance of the Snowy-Murray Development DISV Reserve Account. (7) "Applied Snowy-Murray Development Forced Release Volume" has the meaning given to that term in subclause 16.5(1) of Schedule Four. (8) "Applied Snowy-Tumut Development DISV Reserve Account Volume" means, with respect to each Month, the lesser of: (a) the volume by which (if any) the Dry Inflow Sequence Volume for the Snowy-Tumut Development calculated under clause 8 of Schedule Four exceeds the volume of the Dry Inflow Sequence Volume for the Snowy-Tumut Development calculated as at the commencement of March in the previous Water Year under clause 8 of Schedule Four; and (b) the balance of the Snowy-Tumut Development DISV Reserve Account;

Section	Page Number	Proposed variation
		(9) “Applied Snowy-Tumut Development Forced Release Volume” has the meaning given to that term in subclause 16.5(2) of Schedule Four.
New Section	1	After renumber section (11) “Authorised Officer”..... <i>insert new section:</i> (12) “Authority” means the Murray-Darling Basin Authority as defined in the <i>Water Act 2007</i> (Cth).
(8) “Base Passing Flow”	1	<i>Renumber</i> (8) “Base Passing Flow”..... to (13) “Base Passing Flow”.....
(9) “Baseline Conditions”	1	<i>Renumber</i> (9) “Baseline Conditions”..... to (14) “Baseline Conditions”.....
(10) “Blowering Air Space Deed”	2	<i>Renumber</i> (10) “Blowering Air Space Deed”..... to (15) “Blowering Air Space Deed”.....
(11) “Blowering Dam”	2	<i>Renumber</i> (11) “Blowering Dam”..... to (16) “Blowering Dam”.....
(12) “Business Day”	2	<i>Renumber</i> (12) “Business Day”..... to (17) “Business Day”.....
(13) “Claim”	2	<i>Renumber</i> (13) “CLaim”..... to (18) “Claim”.....
(14) “Commissioner”	2	<i>Delete whole section</i> (14) “Commissioner” means the Murray-Darling Basin Commissioner as defined in the Murray-Darling Basin Act 1993 (Cth);
(15) “Commonwealth”	2	<i>Renumber</i> (15) “Commonwealth”..... to (19) “Commonwealth”.....
(16) “Compensation Releases”	2	<i>Renumber</i> (16) “Compensation Releases”..... to (20) “Compensation Releases”.....
(17) “Compliance Report”	2	<i>Renumber</i> (17) “Compliance Report”..... to (21) “Compliance Report”.....
(18) “Corporation Date”	2	<i>Renumber</i> (18) “Corporation Date”..... to (22) “Corporation Date”.....
(19) “Cost”	2	<i>Renumber</i> (19) “Cost”..... to (23) “Cost”.....
(20) “Default Rate”	2	<i>Renumber</i> (20) “Default Rate”..... to (24) “Default Rate”.....
(21) “Development”	2	<i>Renumber</i> (21) “Development”..... to (25) “Development”.....
(22) “Dry Flow Sequence Volume”	2	<i>Renumber</i> (22) “Dry Flow Sequence Volume”..... to (26) “Dry Flow Sequence Volume”.....
(23) “Environmental Entitlements”	3	<i>Renumber</i> (23) “Environmental Entitlements”..... to (27) “Environmental Entitlements”.....
(24) “Eucumbene River”	3	<i>Renumber</i> (24) “Eucumbene River”..... to (28) “Eucumbene River”.....
(25) “First Draft Annual Water Operating Plan”	3	<i>Renumber</i> (25) “First Draft Annual Water Operating Plan”..... to (29) “First Draft Annual Water Operating Plan”.....
(26) “GL”	3	<i>Renumber</i> (26) “GL”..... to (30) “GL”.....

Section	Page Number	Proposed variation
(27) "Government Agency"	3	<u>Renumber</u> (27) "Government Agency"..... to (31) "Government Agency".....
(28) "Governments"	3	<u>Renumber</u> (28) "Governments"..... to (32) "Governments".....
(29) "GWH"	3	<u>Renumber</u> (29) "GWH"..... to (33) "GWH".....
(30) "Increased Flow Requirements"	3	<u>Renumber</u> (30) "Increased Flow Requirements"..... to (34) "Increased Flow Requirements".....
(31) "Increased Flows"	3	<u>Renumber</u> (31) "Increased Flows"..... to (35) "Increased Flows".....
New Section	3	After renumber section (35) "Increased Flows"..... <u>insert new section:</u> (36) "Initial River Murray Increased Flows Account" has the meaning given to that term in Schedule F to the Murray-Darling Basin Agreement.
(32) "Law"	3	<u>Renumber</u> (32) "Law"..... to (37) "Law".....
(33) "Licensee"	3	<u>Renumber</u> (33) "Licensee"..... to (38) "Licensee".....
(34) "Licensee's Obligations"	3	<u>Renumber</u> (34) "Licensee's Obligations"..... to (39) "Licensee's Obligations".....
(35) "Lower Darling River System"	3	<u>Renumber</u> (35) "Lower Darling River System"..... to (40) "Lower Darling River System".....
(36) "Ministerial Corporation"	3	<u>Renumber</u> (36) "Ministerial Corporation"..... to (41) "Ministerial Corporation".....
(37) "Month"	3	<u>Renumber</u> (37) "Month"..... to (42) "Month".....
(38) "Mowamba Borrowings Account"	4	<u>Renumber</u> (38) "Mowamba Borrowings Account"..... to (43) "Mowamba Borrowings Account".....
New Sections	4	After renumber section (43) "Mowamba Borrowings Account"..... <u>insert new sections:</u> (44) "Murray-Darling Basin Agreement" means the Murray-Darling Basin Agreement in Schedule 1 to the Water Act 2007 (Cth); (45) "Murrumbidgee River Drought Account" means the water account to be maintained by the Licensee under subclause 16.1(2) of Schedule Four; (46) "Murrumbidgee River Drought Account Agreed Transfer Volume" has the meaning given to that term in subclause 16.7(1) of Schedule Four; (47) "Murrumbidgee River Drought Account Nominated Transfer Volume" has the meaning given to that term in subclause 16.6(1) of Schedule Four;

Section	Page Number	Proposed variation
(39) "Murrumbidgee River System"	4	Renumber (39) "Murrumbidgee River System"..... to (48) "Murrumbidgee River System".....
New Sections	4	After renumber section (48) "Murrumbidgee River System"..... insert new sections: (49) "Murrumbidgee Water Sharing Plan" means the Water Sharing Plan for the Murrumbidgee Regulated River Water Source as in force under section 50 of the Water Management Act 2000 (NSW); (50) "Net Above Target Water" means Above Target Water in each Development less: (a) in the case of the Snowy- Murray Development, the volume of water in the River Murray Drought Account; and (b) in the case of the Snowy- Tumut Development, the volume of water in the Murrumbidgee River Drought Account;
(40) "Net Jounama Releases"	4	Renumber (40) "Net Jounama Releases"..... to (51) "Net Jounama Releases".....
(41) "New South Wales"	4	Renumber (41) "New South Wales"..... to (52) "New South Wales".....
(42) "Notice of Intention"	4	Renumber (42) "Notice of Intention"..... to (53) "Notice of Intention".....
(43) "Pre-Release Compensation Account"	4	Renumber (43) "Pre-Release Compensation Account"..... to (54) "Pre-Release Compensation Account".....
(44) "Prescribed Event"	4	Renumber (44) "Prescribed Event"..... to (55) "Prescribed Event".....
New Section	5	After renumber section (55) "Prescribed Event"..... insert new section: (56) "Recovery Amount" means, for each Development with respect to each Month, the volume (if any) by which the Dry Inflow Sequence Volume for that Development calculated as at the commencement of that Month under clause 8 of Schedule Four is less than the volume of the Dry Inflow Sequence Volume for that Development calculated as at the commencement of the Month immediately preceding that Month under clause 8 of Schedule Four ;
(45) "Relaxation Volume"	5	Renumber (45) "Relaxation Volume"..... to (57) "Relaxation Volume".....
(46) "Required Annual Release"	5	Renumber (46) "Required Annual Release"..... to (58) "Required Annual Release".....
New Section	5	After renumber section (58) "Required Annual Release"..... insert new section: (59) "Required Annual Release Pre-Release Volume" for each Development has the meaning given to that term in subclause 13.4(1) of Schedule Four ;
(47) "River"	5	Renumber (47) "River"..... to (60) "River".....

Section	Page Number	Proposed variation
(48) "River Murray Annual Allocation"	5	<u>Renumber</u> (48) "River Murray Annual Allocation"..... to (61) "River Murray Annual Allocation".....
New Sections	5	After renumber section (61) "River Murray Annual Allocation"..... <u>insert new sections:</u> (62) "River Murray Drought Account" means the water account to be maintained by the Licensee under subclause 16.1(1) of Schedule Four; (63) "River Murray Drought Account Agreed Transfer Volume" has the meaning given to that term in subclause 16.4(1) of Schedule Four; (64) "River Murray Drought Account Nominated Transfer Volume" has the meaning given to that term in subclause 16.3(1) of Schedule Four;
(49) "River Murray System"	5	<u>Renumber</u> (49) "River Murray System"..... to (65) "River Murray System".....
(50) "Second Draft Annual Water Operating Plan"	5	<u>Renumber</u> (50) "Second Draft Annual Water Operating Plan"..... to (66) "Second Draft Annual Water Operating Plan".....
(51) "Security Interest"	5	<u>Renumber</u> (51) "Security Interest"..... to (67) "Security Interest".....
(52) "Security Interest Holder"	5	<u>Renumber</u> (52) "Security Interest Holder"..... to (68) "Security Interest Holder".....
(53) "Snowy Compensation Deed"	5	<u>Renumber</u> (53) "Snowy Compensation Deed"..... to (69) "Snowy Compensation Deed".....
(54) "Snowy Montane Rivers"	5	<u>Renumber</u> (54) "Snowy Montane Rivers"..... to (70) "Snowy Montane Rivers".....
(55) "Snowy Montane Rivers External Increased Flows"	6	<u>Renumber</u> (55) "Snowy Montane Rivers External Increased Flows"..... to (71) "Snowy Montane Rivers External Increased Flows".....
(56) "Snowy Montane Rivers Increased Flows"	6	<u>Renumber</u> (56) "Snowy Montane Rivers Increased Flows"..... to (72) "Snowy Montane Rivers Increased Flows".....
(57) "Snowy-Murray Development"	6	<u>Renumber</u> (57) "Snowy-Murray Development"..... to (73) "Snowy-Murray Development".....
(58) "Snowy-Murray Development Annual Allocation"	6	<u>Renumber</u> (58) "Snowy-Murray Development Annual Allocation"..... to (74) "Snowy-Murray Development Annual Allocation".....
(59) "Snowy-Murray Development Designated Entitlement"	6	<u>Renumber</u> (59) "Snowy-Murray Development Designated Entitlement"..... to (75) "Snowy-Murray Development Designated Entitlement".....
New Sections	6	After renumber section (75) "Snowy-Murray Development Designated Entitlement"..... <u>insert new sections:</u> (76) "Snowy-Murray Development DISV Reserve Account" means the water account to be maintained by the

Section	Page Number	Proposed variation
		<p>Licensee under subclause 16.1(3) of Schedule Four;</p> <p>(77) “Snowy-Murray Development Downstream Wet Sequence Protection Volume” has the meaning given to that term in subclause 13.5(1) of Schedule Four;</p> <p>(78) “Snowy-Murray Development Forced Release” has the meaning given to that term in subclause 16.7(1)(b)(i) of Schedule Four;</p> <p>(79) “Snowy-Murray Development Net DISV Increase” means, at the commencement of each Month, the volume equal to the greater of zero and:</p> <p style="padding-left: 40px;">the volume of the Dry Inflow Sequence Volume for the Snowy-Murray Development calculated under clause 8 of Schedule Four</p> <p>MINUS: the volume of the Dry Inflow Sequence Volume for the Snowy-Murray Development calculated as at the commencement of March in the previous Water Year under clause 8 of Schedule Four</p> <p>MINUS: the Applied Snowy-Murray Development DISV Reserve Account Volume</p> <p>(80) “Snowy-Murray Development Target Annual Release” has the meaning given to that term in subclause 10.2(1) of Schedule Four;</p>
(60) “Snowy Notional Spill”	6	<u>Renumber</u> (60) “Snowy Notional Spill” to (81) “Snowy Notional Spill”
(61) “Snowy River”	6	<u>Renumber</u> (61) “Snowy River” to (82) “Snowy River”
(62) “Snowy River Annual Allocation”	6	<u>Renumber</u> (62) “Snowy River Annual Allocation” to (83) “Snowy River Annual Allocation”
(63) “Snowy River Apportioned Entitlement”	6	<u>Renumber</u> (63) “Snowy River Apportioned Entitlement” to (84) “Snowy River Apportioned Entitlement”
(64) “Snowy River Increased Flows”	7	<u>Renumber</u> (64) “Snowy River Increased Flows” to (85) “Snowy River Increased Flows”
(65) “Snowy Scheme”	7	<u>Renumber</u> (65) “Snowy Scheme” to (86) “Snowy Scheme”
(66) “Snowy-Tumut Development”	7	<u>Renumber</u> (66) “Snowy-Tumut Development” to (87) “Snowy-Tumut Development”
(67) “Snowy-Tumut Development”	7	<u>Renumber</u> (67) “Snowy-Tumut Development Annual Allocation” to (88) “Snowy-Tumut Development Annual Allocation”

Section	Page Number	Proposed variation
Annual Allocation		Allocation
New Sections	7	After renumber section (88) “Snowy-Tumut Development Annual Allocation” <i>insert new sections:</i> (89) “Snowy-Tumut Development DISV Reserve Account” means the water account to be maintained by the Licensee under subclause 16.1(4) of Schedule Four ; (90) “Snowy-Tumut Development Downstream Wet Sequence Protection Volume” has the meaning given to that term in subclause 13.6(1) of Schedule Four ;
(68) “Snowy-Tumut Development Designated Entitlement”	7	<i>Renumber</i> (68) “Snowy-Tumut Development Designated Entitlement” to (91) “Snowy-Tumut Development Designated Entitlement”
New Sections	7	After renumber section (91) “Snowy-Tumut Development Designated Entitlement” <i>insert new sections:</i> (92) “Snowy-Tumut Development Forced Release” has the meaning given to that term in subclause 16.7(2)(b)(i) of Schedule Four ; (93) “Snowy-Tumut Development Net DISV Increase” means, at the commencement of each Month, the volume equal to the greater of zero and: the volume of the Dry Inflow Sequence Volume for the Snowy-Tumut Development calculated under clause 8 of Schedule Four MINUS: the volume of the Dry Inflow Sequence Volume for the Snowy-Tumut Development calculated as at the commencement of March in the previous Water Year under clause 8 of Schedule Four MINUS: the Applied Snowy-Tumut Development DISV Reserve Account Volume (94) “Snowy- Tumut Development Target Annual Release” has the meaning given to that term in subclause 10.3(1) of Schedule Four;
(69) “Snowy Water Catchment”	7	<i>Renumber</i> (69) “Snowy Water Catchment” to (95) “Snowy Water Catchment”
(70) “Snowy Water Inquiry Outcomes Implementation Deed”	7	<i>Renumber</i> (70) “Snowy Water Inquiry Outcomes Implementation Deed” to (96) “Snowy Water Inquiry Outcomes Implementation Deed”
(71) “Table One”	7	<i>Renumber</i> (71) “Table One” to (97) “Table One”

Section	Page Number	Proposed variation
(72) "Tooma River"	7	<u>Renumber</u> (72) "Tooma River"..... to (98) "Tooma River".....
(73) "Unused Spill"	7	<p><u>Renumber</u> (73) "Unused Spill"..... to (99) "Unused Spill".....</p> <p><u>AND</u></p> <p><u>Delete all after</u> "Unused Spill" means; and <u>insert instead</u> to following wording so renumbered (99) "Unused Spill" reads:</p> <p>(99) "Unused Spill" means:</p> <p>(a) in the case of the Snowy-Murray Development: either or both of:</p> <p>(i) a physical spill from Hume Dam; and</p> <p>(ii) a release made from Hume Dam to prevent it from exceeding full storage level under a return to expected minimum inflow conditions prior to an onset of water supply demands (consumptive or environmental) which would result in a storage drawdown; and</p> <p>(b) in the case of the Snowy-Tumut Development: either or both of:</p> <p>(i) a physical spill from Blowering Dam; and</p> <p>(ii) a release made from Blowering Dam to prevent it from exceeding full storage level under a return to expected minimum inflow conditions prior to an onset of water supply demands (consumptive or environmental) which would result in a storage drawdown,</p> <p>but does not include "pre-releases" as that term is defined in the Blowering Air Space Deed;</p>
(74) "Upper Murrumbidgee River"	7	<u>Renumber</u> (74) "Upper Murrumbidgee River"..... to (100) "Upper Murrumbidgee River".....
(75) "Upper Snowy River"	8	<u>Renumber</u> (75) "Upper Snowy River"..... to (101) "Upper Snowy River".....
(76) "Victoria"	8	<u>Renumber</u> (76) "Victoria"..... to (102) "Victoria".....
(77) "Water Consultation and Liaison Committee"	8	<u>Renumber</u> (77) "Water Consultation and Liaison Committee"..... to (103) "Water Consultation and Liaison Committee".....
(78) "Water Release Requirements"	8	<u>Renumber</u> (78) "Water Release Requirements"..... to (104) "Water Release Requirements".....
(79) "Water Year"	8	<u>Renumber</u> (79) "Water Year"..... to (105) "Water Year".....
(80) "Works"	8	<u>Renumber</u> (80) "Works"..... to (106) "Works".....

8. ANNUAL WATER OPERATION PLANS

Section	Page Number	Proposed variation
8.7 Licensee to Submit Second Draft Annual Water Operating Plan to Ministerial Corporation	16	<p><u>Delete all after</u> “.....3 April each year” <u>to read:</u></p> <p>8.7 Licensee to Submit Second Draft Annual Water Operating Plan to Ministerial Corporation</p> <p>The Licensee must submit the Second Draft Annual Water Operating Plan to the Ministerial Corporation not later than 3 April each year.</p>
10. REVIEWS OF LICENSEE’S OBLIGATIONS		
10.7 Variation of Schedule Two	23	<p>In suclause 10.7(1)(b) <u>delete</u> “Murray Darling Basin Commission” and <u>insert instead</u> “Authority” to read:</p> <p>(b) where the Ministerial Corporation determines, in consultation with the Authority, that the proposed decommissioning or removal of the relevant dam by the Licensee could affect the Licensee’s ability to comply with the Water Release Requirements, the Increased Flow Requirements or any other obligations under the Licence over the remaining term of this Licence then the Ministerial Corporation must notify the Licensee of that determination, and the Licensee must not decommission or remove the relevant dam without the prior written consent of the Ministerial Corporation; and</p>
Schedule 4: WATER RELEASE REQUIREMENTS		
6. RELAXATION VOLUME: SNOWY-MURRAY DEVELOPMENT		
6.1 Relaxation Volume: Snowy-Murray Development	70	<p>Within the definition for “SR =” <u>insert after</u> “.....previous Month” the words “plus any Required Annual Release Pre-Release Volume released from the Snowy-Tumut Development under clause 13.4 of this Schedule Four in the previous Water Year” to read:</p> <p>SR = Water Available to the Snowy-Murray Development released by the Snowy Scheme to the catchment of the River Murray upstream of Hume Dam from the commencement of the relevant Water Year until the end of the previous Month plus any Required Annual Release Pre-Release Volume released from the Snowy-Murray Development under clause 13.4 of this Schedule Four in the previous Water Year</p>
7. RELAXATION VOLUME: SNOWY-TUMUT DEVELOPMENT		
7.1 Relaxation Volume: Snowy-Tumut Development	71	<p>Within the definition for “SR =” <u>insert after</u> “.....previous Month” the words “plus any Required Annual Release Pre-Release Volume released from the Snowy-Murray Development under clause 13.4 of this Schedule Four in the previous Water Year” to read:</p>

Section	Page Number	Proposed variation
		<p>SR = Water Available to the Snowy-Tumut Development released by the Snowy Scheme to either or both of the catchment of the Tumut River and Murrumbidgee River from the commencement of the relevant Water Year until the end of the previous Month plus any Required Annual Release Pre-Release Volume released from the Snowy-Tumut Development under clause 13.4 of this Schedule Four in the previous Water Year</p>
8. DRY INFLOW SEQUENCE VOUME		
<p>8.1 Dry Inflow Sequence Volume</p>	73	<p>Within the definition for “PEATmax =” <i>insert before all occurences of</i> “...Above Target Water” the word “net” to read:</p> <p>PEATmax = The component of PEmax attributable to the Net Above Target Water stored in the relevant Development from the current month to the end of the Water Year. Losses attributed to PEATmax are to be calculated by reference to the ratio of Net Above Target Water in the relevant Development to the total gross storage in the relevant Development.</p>
10. RELEASES THAT MAY BE CALLED OUT IN THE SUBSEQUENT WATER YEAR		
<p>10. RELEASES THAT MAY BE CALLED OUT IN THE SUBSEQUENT WATER YEAR</p>	75	<p><i>Delete</i> “IN THE SUBSEQUENT WATER YEAR” and <i>insert instead</i> “BY THE MINISTERIAL CORPORATION” to read:</p> <p>10. RELEASES THAT MAY BE CALLED OUT BY THE MINISTERIAL CORPORATION</p>
<p>New Section</p>	76	<p>After clause “10.1 Ministerial Corporation May Call Out in Subsequent Water Year” <i>insert</i></p> <p>10.2 Ministerial Corporation May Call Out River Murray Drought Release</p> <p>(1) This clause 10.2 of Schedule Four applies despite any other provision in or under this Licence.</p> <p>(2) If, as at 1 October in a Water Year:</p> <p>(a) the Authority determines (acting reasonably) that River Murray system inflows are insufficient to enable the delivery of critical human water needs; and</p> <p>(b) the River Murray Drought Account is in credit,</p> <p>the Ministerial Corporation may by notice in writing to the Licensee given not later than 5 October in that Water Year, specify a release volume for the Snowy-Murray Development for that Water</p>

Section	Page Number	Proposed variation
		<p>Year (“Snowy-Murray Development Target Annual Release”).</p> <p>(3) The Snowy-Murray Development Target Annual Release must be greater than the Required Annual Release for the Snowy-Murray Development calculated as at the date of the giving of notice by the Ministerial Corporation.</p> <p>(4) If a notice is given by the Ministerial Corporation under subclause 10.2(2) of this Schedule Four, the Licensee must release from the Snowy-Murray Development in that Water Year:</p> <p>(a) if the Required Annual Release for the Snowy-Murray Development calculated as at the end of that Water Year exceeds the Snowy-Murray Development Target Annual Release: the Required Annual Release; or</p> <p>(b) if the Required Annual Release for the Snowy-Murray Development calculated as at the end of that Water Year is less than the Snowy-Murray Development Target Annual Release: the lesser of:</p> <p>(i) the Required Annual Release for the Snowy-Murray Development calculated as at the end of that Water Year plus the balance of the River Murray Drought Account; and</p> <p>(ii) the Snowy-Murray Development Target Annual Release.</p> <p>(5) The difference (if any) between the volume released under subclause 10.2(4)(b) and the Required Annual Release for the Snowy-Murray Development (a “River Murray Drought Release”) must be debited from the River Murray Drought Account.</p> <p>(6) For the avoidance of doubt, the Ministerial Corporation may only issue one notice under subclause 10.2(1) in each Water Year.</p> <p>10.3 Ministerial Corporation May Call Out Murrumbidgee River Drought Release</p> <p>(1) This clause 10.3 of Schedule Four applies despite any other provision in or under this Licence.</p> <p>(2) If, as at 1 October in a Water Year:</p> <p>(a) annual allocations attaching to regulated river (high security) access licences under the Murrumbidgee Water Sharing Plan are less than 50%; and</p> <p>(b) the Murrumbidgee River Drought Account is in credit,</p> <p>the Ministerial Corporation may by notice in writing to the Licensee given not later than 5 October in that Water Year, specify a release volume for the Snowy-Tumut Development for that Water Year (“Snowy-Tumut Development Target Annual Release”).</p> <p>(3) The Snowy-Tumut Development Target Annual Release must be greater than the Required</p>

Section	Page Number	Proposed variation
		<p>Annual Release for the Snowy-Tumut Development calculated as at the date of the giving of notice by the Ministerial Corporation.</p> <p>(4) If a notice is given by the Ministerial Corporation under subclause 10.3(2) of this Schedule Four, the Licensee must release from the Snowy-Tumut Development in that Water Year:</p> <ul style="list-style-type: none"> (a) if the Required Annual Release for the Snowy-Tumut Development calculated as at the end of that Water Year exceeds the Snowy-Tumut Development Target Annual Release: the Required Annual Release; or (b) if the Required Annual Release for the Snowy-Tumut Development calculated as at the end of that Water Year is less than the Snowy-Tumut Development Target Annual Release: the lesser of: <ul style="list-style-type: none"> (i) the Required Annual Release for the Snowy-Tumut Development calculated as at the end of that Water Year plus the balance of the Murrumbidgee River Drought Account; and (ii) the Snowy-Tumut Development Target Annual Release. <p>(5) The difference (if any) between the volume released under subclause 10.3(4)(b) and the Required Annual Release for the Snowy-Tumut Development (a “Murrumbidgee River Drought Release”) must be debited from the Murrumbidgee River Drought Account.</p> <p>(6) For the avoidance of doubt, the Ministerial Corporation may only issue one notice under subclause 10.3(1) in each Water Year.</p> <p>10.4 Ministerial Corporation May Call Out River Murray Increased Flows</p> <p>(1) If, during a Water Year:</p> <ul style="list-style-type: none"> (a) the volume of Net Above Target Water in Snowy Scheme storages exceeds 800 GL; and (b) the Initial River Murray Increased Flows Account is in credit, <p>the Ministerial Corporation may by notice in writing to the Licensee given not later than 5 October in that Water Year, require the Licensee to release from the Snowy-Murray Development in that Water Year a volume of Above Target Water that, as at the time the notice is issued, is equal to the lesser of:</p> <ul style="list-style-type: none"> (c) the balance of the Initial River Murray Increased Flows Account; and (d) the volume that, if released under this clause 10.4, would reduce the volume of Net Above Target Water in Snowy Scheme storages to 800 GL. <p>(2) For the avoidance of doubt, the Ministerial Corporation may only issue one notice under</p>

Section	Page Number	Proposed variation
subclause 10.4(1) in each Water Year.		
12. REQUIRED ANNUAL RELEASES FROM EACH DEVELOPMENT		
12.1 Required Annual Release for the Snowy-Murray Development	76	<p><u>Delete:</u></p> <p>PLUS: Carry Overs: the volume of the Dry Inflow Sequence Volume for the Snowy-Murray Development as at the commencement of March in the previous Water Year under clause 8 of this Schedule Four</p> <p><u>Insert:</u></p> <p>PLUS: The volume (if any) of the Snowy-Murray Development Downstream Wet Sequence Protection Volume for that Water Year</p> <p>MINUS: The River Murray Drought Account Agreed Transfer Volume</p> <p>MINUS: The River Murray Drought Account Nominated Transfer Volume</p> <p><u>Reword:</u></p> <p>MINUS: The Dry Inflow Sequence Volume calculated as at the commencement of March in that Water Year under clause 8 of this Schedule Four</p> <p><u>To Read</u></p> <p>MINUS: The Snowy-Murray Development Net DISV Increase calculated as at the commencement of March in that Water Year</p> <p><u>Reword:</u></p> <p>MINUS: Any excess of the volume of water actually released in the previous Water Year and the Required Annual Release from the Snowy-Murray Development as at the end of the previous Water Year, up to a volume equal to the Dry Inflow Sequence Volume for the Snowy-Murray Development as at the commencement of March in the previous Water Year</p> <p><u>To Read</u></p> <p>MINUS: The volume of any Required Annual Release Pre-Release Volume released</p>

Section	Page Number	Proposed variation
		<p>from the Snowy-Murray Development in the previous Water Year.</p> <p>Such that after “....water calculated as follows:” reads:</p> <p>1,062 GL</p> <p>PLUS: Inter-Valley Transfers: the volume (if any) of transfers from the Snowy-Tumut Development during that Water Year under clause 9 of this Schedule Four</p> <p>PLUS: Within-Year Releases: the volume (if any) of releases, in addition to any other releases referred to in this clause 12.1, that are required to ensure that the Licensee complies with the within-year release requirements set out in clause 11 of this Schedule Four</p> <p>PLUS: Call Outs: the volume (if any) calculated under subclause 10.1(1) of this Schedule Four</p> <p>PLUS: Any shortfall between the volume of water actually released in the previous Water Year and the Required Annual Release from the Snowy-Murray Development as at the end of the previous Water Year</p> <p>PLUS: The volume (if any) of the Snowy-Murray Development Downstream Wet Sequence Protection Volume for that Water Year</p> <p>MINUS: Inter-Valley Transfers: the volume (if any) of transfers to the Snowy-Tumut Development during that Water Year under clause 9 of this Schedule Four</p> <p>MINUS: The Snowy-Murray Development Annual Allocation</p> <p>MINUS: The River Murray Drought Account Agreed Transfer Volume</p> <p>MINUS: The River Murray Drought Account Nominated Transfer Volume</p> <p>MINUS: The maximum Relaxation Volume calculated during that Water Year under clause 6 of this Schedule Four</p> <p>MINUS: The Snowy-Murray Development Net DISV Increase calculated as at the commencement of March in that Water Year</p> <p>MINUS: The volume of any Required Annual Release Pre-Release Volume released from the Snowy-</p>

Section	Page Number	Proposed variation
		Murray Development in the previous Water Year.
12.2 Required Annual Release for the Snowy-Tumut Development	78	<p><u>Delete:</u></p> <p>PLUS: Carry Overs: the volume of the Dry Inflow Sequence Volume for the Snowy-Tumut Development as at the commencement of March in the previous Water Year under clause 8 of this Schedule Four</p> <p><u>Insert:</u></p> <p>PLUS: The volume (if any) of the Snowy-Tumut Development Downstream Wet Sequence Protection Volume for that Water Year</p> <p>MINUS: The Murrumbidgee River Drought Account Agreed Transfer Volume</p> <p>MINUS: The Murrumbidgee River Drought Account Nominated Transfer Volume</p> <p><u>Reword:</u></p> <p>MINUS: The Dry Inflow Sequence Volume calculated as at the commencement of March in that Water Year under clause 8 of this Schedule Four</p> <p><u>To Read</u></p> <p>MINUS: The Snowy-Tumut Development Net DISV Increase calculated as at the commencement of March in that Water Year</p> <p><u>Reword:</u></p> <p>MINUS: Any excess of the the volume of water actually released in the previous Water Year and the Required Annual Release from the Snowy-Tumut Development as at the end of the previous Water Year, up to a volume equal to the Dry Inflow Sequence Volume for the Snowy-Tumut Development as at the commencement of March in the previous Water Year</p> <p><u>To Read</u></p> <p>MINUS: the volume of any Required Annual Release Pre-Release Volume released from the Snowy-Tumut Development in the previous Water Year</p>

Section	Page Number	Proposed variation
		<p>Such that after “...water calculated as follows:” reads:</p> <p>1,026 GL</p> <p>PLUS: Inter-Valley Transfers: the volume (if any) of transfers from the Snowy-Murray Development during that Water Year under clause 9 of this Schedule Four</p> <p>PLUS: Within-Year Releases: the volume (if any) of releases, in addition to any other releases referred to in this clause 12.2, that are required to ensure that the Licensee complies with the within-year release requirements set out in clause 11 of this Schedule Four</p> <p>PLUS: Call Outs: the volume (if any) calculated under subclause 10.1(2) of this Schedule Four</p> <p>PLUS: any shortfall between the volume of water actually released in the previous Water Year and the Required Annual Release from the Snowy-Tumut Development as at the end of the previous Water Year</p> <p>PLUS: Any Compensation Releases called out during that Water Year</p> <p>PLUS: The volume (if any) of the Snowy-Tumut Development Downstream Wet Sequence Protection Volume for that Water Year</p> <p>MINUS: Inter-Valley Transfers: the volume (if any) of transfers to the Snowy-Murray Development during that Water Year under clause 9 of this Schedule Four</p> <p>MINUS: The Snowy-Tumut Development Annual Allocation</p> <p>MINUS: The Murrumbidgee River Drought Account Agreed Transfer Volume</p> <p>MINUS: The Murrumbidgee River Drought Account Nominated Transfer Volume</p> <p>MINUS: The maximum Relaxation Volume calculated during that Water Year under clause 7 of this Schedule Four</p> <p>MINUS: The Snowy-Tumut Development Net DISV Increase calculated as at the commencement of March in that Water Year</p> <p>MINUS: the volume of any Required Annual Release Pre-Release Volume released from the Snowy-</p>

Section	Page Number	Proposed variation
		Tumut Development in the previous Water Year
12.3 No Obligation to Release More than Required Annual Release for Each Development	79	In suclause 12.3(2) <u>delete</u> “12.1” and <u>insert instead</u> “12.2” to read: (2) to release from the Snowy-Tumut Development each Water Year a volume of water that is more than the volume calculated under clause 12.2 of this Schedule Four ,
13. FLEXIBILITY PROVISIONS		
13. FLEXIBILITY PROVISIONS	79	<u>Insert</u> “AND PRE-RELEASE” after “FLEXIBILITY” to read: 13 FLEXIBILITY AND PRE-RELEASE PROVISIONS
13.1 Reduction of Required Annual Release	79	<u>Renumber</u> 13.1 Reduction of Required Annual Release..... to 13.2 Reduction of Required Annual Release <u>AND</u> <u>Delete</u> “Despite any other provision in or under this Licence” to read: 13.2 Reduction of Required Annual Release (1) In any Water Year the Ministerial Corporation and the Licensee may agree on any terms to an agreed release that is less than the Required Annual Release for either or both of the Developments. (2) Where a reduction in the Required Annual Release is agreed between the Ministerial Corporation and the Licensee, the Licensee is required under this Licence to release from the relevant Development in that Water Year only the Agreed Annual Release.
New Section	79	Before renumbered clause “ 13.2 Reduction of Required Annual Release ” <u>insert</u> 13.1 This Clause to Apply Despite Any Other Provision of this Licence This clause 13 of Schedule Four applies despite any other provision in or under this Licence.
13.2 Consideration of Proposals by Water Consultation and Liaison Committee	80	<u>Renumber</u> 13.2 Consideration of Proposals by Water Consultation and Liaison Committee .. to 13.3 Consideration of Proposals by Water Consultation and Liaison Committee <u>AND</u> <u>Delete</u> reference to “clause 13.1” and <u>insert instead</u> “clause 13.2” to read: 13.3 Consideration of Proposals by Water Consultation and Liaison Committee The Ministerial Corporation must give the Water Consultation and Liaison Committee a reasonable opportunity to consider each proposal to reduce the Required Annual Release for a Development under clause 13.2 of this Schedule Four .

Section	Page Number	Proposed variation
New Sections	80	<p>After renumbered clause “13.3 Consideration of Proposals by Water Consultation and Liaison Committee” <i>insert</i></p> <p>13.4 Required Annual Release Pre-Release Volumes</p> <p>(1) During each Water Year the Licensee may release from each Development a volume of water in excess of the Required Annual Release for the relevant Development (as at the end of that Water Year) that is accounted as a pre-release of the Required Annual Release for the relevant Development for the subsequent Water Year and not as a release of Above Target Water (“Required Annual Release Pre-Release Volume”).</p> <p>(2) The maximum volume of the Required Annual Release Pre-Release Volume that may be released by the Licensee with respect to a Development for a Water Year (“Water Year X”) is calculated as the sum of:</p> <ul style="list-style-type: none"> (a) DISV_{March(x)}; plus (b) the Recovery Amount; plus (c) if the sum of (a) and (b) is less than 200 GL, the difference between the sum of (a) and (b) and 200 GL, otherwise nil, <p>Where DISV_{March(x)} = the Dry Inflow Sequence Volume as at 1 March for Water Year X for that Development.</p> <p>13.5 Downstream Wet Sequence Protection Volume: Snowy-Murray Development</p> <p>(1) If:</p> <ul style="list-style-type: none"> (a) during a Water Year (“Water Year 1”) a Required Annual Release Pre-Release Volume is released from the Snowy-Murray Development that includes a volume under subclause 13.4(2)(c) (“Snowy-Murray Development Relevant Volume”); and (b) during the subsequent Water Year (“Water Year 2”) an Unused Spill occurs from Hume Dam, <p>the Licensee must calculate and record the “Snowy-Murray Development Downstream Wet Sequence Protection Volume”, being the lesser of:</p> <ul style="list-style-type: none"> (c) the Snowy-Murray Development Relevant Volume; (d) the volume of the Unused Spill; and (e) the volume (if any) by which, at the time of the Unused Spill, the sum of the Required Annual Release Pre- Release Volume in Water Year 1 and the actual progressive releases from the Snowy-Murray Development since the commencement of Water Year

Section	Page Number	Proposed variation
		<p>2 exceed pro-rated progressive releases from the Snowy-Murray Development since the commencement of Water Year 2 calculated as if no Required Annual Release Pre-Release Volume was released from the Snowy-Murray Development in Water Year 1.</p> <p>13.6 Downstream Wet Sequence Protection Volume: Snowy-Tumut Development</p> <p>(1) If:</p> <p>(a) during a Water Year (“Water Year 1”) a Required Annual Release Pre-Release Volume is released from the Snowy-Tumut Development that includes a volume under subclause 13.4(2)(c) (“Snowy-Tumut Development Relevant Volume”); and</p> <p>(b) during the subsequent Water Year (“Water Year 2”) an Unused Spill occurs from Blowering Dam,</p> <p>the Licensee must calculate and record the “Snowy-Tumut Development Downstream Wet Sequence Protection Volume”, being the lesser of:</p> <p>(c) the Snowy-Tumut Development Relevant Volume;</p> <p>(d) the volume of the Unused Spill and</p> <p>(e) the volume (if any) by which, at the time of the Unused Spill, the sum of the Required Annual Release Pre-Release Volume in Water Year 1 and the actual progressive releases from the Snowy-Tumut Development since the commencement of Water Year 2 exceed pro-rated progressive releases from the Snowy-Tumut Development since the commencement of Water Year 2 calculated as if no Required Annual Release Pre-Release Volume was released from the Snowy-Tumut Development in Water Year 1.</p>
15. DEVELOPING ANALYTICAL MODELS		
<p>15.2 Ministerial Corporation to Procure Commission to Develop Analytical Model</p>	83	<p><i>Delete</i> “Commission” and <i>insert instead</i> “Authority” to read:</p> <p>15.2 Ministerial Corporation to Procure Authority to Develop Analytical Model The Ministerial Corporation must procure that the Authority develops an analytical model for determining, in the case of the River Murray System:</p> <p>(1) storage volumes; and</p> <p>(2) total diversions,</p> <p>that would have occurred under Baseline Conditions.</p>
<p>15.3 Requirements for Analytical Models</p>	83	<p><i>Delete</i> “Commission” and <i>insert instead</i> “Authority” to read:</p>

Section	Page Number	Proposed variation
		<p>15.3 Requirements for Analytical Models An analytical model developed by the Ministerial Corporation or the Authority under this clause 15 of Schedule Four:</p> <ul style="list-style-type: none"> (1) must be the best model available to the Ministerial Corporation or the Authority from time to time, for the purpose of calculating the timing and quantity of the Relaxation Volume under Baseline Conditions; and (2) must be tested against relevant historical data to determine the accuracy of the model.
<p>15.5 Ministerial Corporation to Procure Evaluation of Commission Model</p>	<p>83</p>	<p>Commission and <u>insert instead</u> Authority to read:</p> <p>15.5 Ministerial Corporation to Procure Evaluation of Authority Model The Ministerial Corporation must, at the request and at the Cost of the Licensee, procure the engagement of independent auditors to evaluate the accuracy and appropriateness of the model developed under this clause 15 of this Schedule Four by the Authority for the purpose referred to in clause 15.3 of this Schedule Four.</p>
<p>New Section</p>	<p>83</p>	<p>After clause “15.5 Ministerial Corporation to Procure Evaluation of Authority Model” <u>insert</u></p> <p>16. LICENSEE TO MAINTAIN WATER ACCOUNTS</p> <p>16.1 Water Accounts The Licensee must maintain the following continuous and audited water accounts:</p> <ul style="list-style-type: none"> (1) River Murray Drought. This account must specify: <ul style="list-style-type: none"> (a) as a credit: <ul style="list-style-type: none"> (i) the volume of any water calculated as a Recovery Amount for the Snowy-Murray Development, provided that the credit balance of the River Murray Drought Account cannot at any time exceed 225 GL; (ii) the volume of water, if any, transferred from the Snowy- Murray Development DISV Reserve Account under clause 16.2 of this Schedule Four; (iii) the volume of water, if any, transferred from the Snowy-Murray Development Required Annual Release under either or both of clauses 16.3 and 16.4 of this Schedule Four; and (b) as a debit:

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		<ul style="list-style-type: none"> (i) the volume of any River Murray Drought Releases; and (ii) the volume of any Applied Snowy-Murray Development Forced Release Volumes. <p>(2) Murrumbidgee River Drought. This account must specify:</p> <ul style="list-style-type: none"> (a) as a credit: <ul style="list-style-type: none"> (i) the volume of any water calculated as a Recovery Amount for the Snowy-Tumut Development, provided that the credit balance of the Murrumbidgee River Drought Account cannot at any time exceed 150 GL; (ii) the volume of any water transferred from the Snowy- Tumut Development DISV Reserve Account under clause 16.3 of this Schedule Four; (iii) the volume of water, if any, transferred from the Snowy-Tumut Development Required Annual Release under either or both of clauses 16.6 and 16.7 of this Schedule Four; and (b) as a debit: <ul style="list-style-type: none"> (i) the volume of any Murrumbidgee River Drought Releases; and (ii) the volume of any Applied Snowy-Tumut Development Forced Release Volumes. <p>(3) Snowy-Murray Development DISV Reserve. Subject to clause 16.4 of this Schedule Four, this account must specify:</p> <ul style="list-style-type: none"> (a) as a credit, the volume of any water calculated as a Recovery Amount for the Snowy-Murray Development that is not credited to the River Murray Drought Account; and (b) as a debit: <ul style="list-style-type: none"> (i) the volume, if any, of the Applied Snowy-Murray Development DISV Reserve Account Volume for any Month; and (ii) the volume of water, if any, transferred to the River Murray Drought Account under clause 16.2 of this Schedule Four. <p>(4) Snowy-Tumut Development DISV Reserve. Subject to clause 16.4 of this Schedule Four, this account must specify:</p> <ul style="list-style-type: none"> (a) as a credit, the volume of any water calculated as a Recovery Amount for the Snowy-Tumut Development that is not credited to the Murrumbidgee River Drought Account; and (b) as a debit:

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		<p>(i) the volume, if any, of the Applied Snowy-Tumut Development DISV Reserve Account Volume for any Month; and</p> <p>(ii) the volume of water, if any, transferred to the Murrumbidgee River Drought Account under clause 16.3 of this Schedule Four.</p> <p>16.2 Transfers From The Snowy-Murray Development DISV Reserve Account to the River Murray Drought Account If at any time:</p> <p>(1) the balance of the River Murray Drought Account is less than 225 GL; and,</p> <p>(2) the Snowy-Murray Development DISV Reserve Account is in credit,</p> <p>the Licensee must both debit the Snowy-Murray Development DISV Reserve Account and credit the River Murray Drought Account by the volume equal to the lesser of:</p> <p>(3) the balance of the Snowy-Murray Development DISV Reserve Account; and</p> <p>(4) the volume by which the balance of the River Murray Drought Account is less than 225 GL,</p> <p>provided that no such transfer from the Snowy-Murray Development DISV Reserve Account to the River Murray Drought Account is to be made in circumstances where the water transferred would then be immediately debited from the River Murray Drought Account as a result of a Snowy-Murray Development Forced Release.</p> <p>16.3 Transfers From The Snowy-Murray Development Required Annual Release to the River Murray Drought Account Following One or More Snowy-Murray Development Forced Releases</p> <p>(1) If at any time the balance of the River Murray Drought Account is less than 225GL as a result of one or more Snowy-Murray Development Forced Releases the Ministerial Corporation may, by giving notice to the Licensee not later than 13th February in any Water Year, specify a volume to be transferred to the River Murray Drought Account ("River Murray Drought Account Nominated Transfer Volume").</p> <p>(2) Each River Murray Drought Account Nominated Transfer Volume must not be greater than:</p> <p>(a) 100GL; and</p> <p>(b) the applicable Snowy-Murray Development Forced Releases,</p> <p>whichever is the lesser volume.</p> <p>(3) At the beginning of the Water Year following a River Murray Drought Account Nominated Transfer Volume being notified by the Ministerial Corporation under subclause 16.3(1), the Licensee must transfer the River Murray Drought Account Nominated Transfer Volume to Above Target Water in</p>

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		<p data-bbox="1032 272 1339 296">Snowy Scheme storages by:</p> <ul style="list-style-type: none"> <li data-bbox="1072 316 1995 368">(a) crediting the River Murray Drought Account by the River Murray Drought Account Nominated Transfer Volume; and <li data-bbox="1072 387 2011 440">(b) reducing the Required Annual Release for the Snowy-Murray Development for that Water Year by the River Murray Drought Account Nominated Transfer Volume. <p data-bbox="866 459 2018 512">16.4 Transfers From The Snowy-Murray Development Required Annual Release to the River Murray Drought Account Generally</p> <ul style="list-style-type: none"> <li data-bbox="978 531 1178 555">(1) If at any time: <ul style="list-style-type: none"> <li data-bbox="1072 574 2029 598">(a) there is a nil balance in the Snowy-Murray Development DISV Reserve Account; and <li data-bbox="1072 617 1827 641">(b) the balance of River Murray Drought Account is less than 225 GL, <p data-bbox="1072 660 2018 713">the parties may agree to transfer a further volume into the River Murray Drought Account ("River Murray Drought Account Agreed Transfer Volume").</p> <li data-bbox="978 732 1995 785">(2) Each River Murray Drought Account Agreed Transfer Volume must not be greater than the volume by which the balance of the River Murray Drought Account is less than 225 GL. <li data-bbox="978 804 2069 884">(3) A River Murray Drought Account Agreed Transfer Volume is to be achieved by the Licensee transferring the River Murray Drought Account Agreed Transfer Volume to Above Target Water in Snowy Scheme storages by: <ul style="list-style-type: none"> <li data-bbox="1072 903 1995 956">(a) crediting the River Murray Drought Account by the River Murray Drought Account Agreed Transfer Volume; and <li data-bbox="1072 975 2011 1027">(b) reducing the Required Annual Release for the Snowy-Murray Development for that Water Year by the River Murray Drought Account Agreed Transfer Volume. <li data-bbox="978 1046 1704 1070">(4) For the avoidance of doubt this clause 16.4 of Schedule Four: <ul style="list-style-type: none"> <li data-bbox="1072 1090 1420 1114">(a) operates in addition to; and <li data-bbox="1072 1133 1951 1157">(b) does not depend on, preclude, or act as a pre-condition to any transfer under, clause 16.3 of Schedule Four. <p data-bbox="866 1233 2063 1286">16.5 Transfers From the Snowy-Tumut Development DISV Reserve Account to the Murrumbidgee River Drought Account</p> <p data-bbox="943 1294 1088 1318">If at any time:</p> <ul style="list-style-type: none"> <li data-bbox="978 1337 1899 1361">(1) the balance of the Murrumbidgee River Drought Account is less than 150 GL; and

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		<p>(2) the Snowy-Tumut Development DISV Reserve Account is in credit, the Licensee must both debit the Snowy-Tumut Development DISV Reserve Account and credit the Murrumbidgee River Drought Account by the volume equal to the lesser of:</p> <p>(3) the balance of the Snowy-Tumut Development DISV Reserve Account; and</p> <p>(4) the volume by which the balance of the Murrumbidgee River Drought Account is less than 150 GL,</p> <p>provided that no such transfer from the Snowy-Tumut Development DISV Reserve Account to the Murrumbidgee River Drought Account is to be made in circumstances where the water transferred would then be immediately debited from the Murrumbidgee River Drought Account as a result of a Snowy-Tumut Development Forced Release.</p> <p>16.6 Transfers From The Snowy-Tumut Development Required Annual Release to the Murrumbidgee River Drought Account Following One or More Snowy-Tumut Development Forced Releases</p> <p>(1) If at any time the balance of the Murrumbidgee River Drought Account is less than 150GL as a result of one or more Snowy-Tumut Development Forced Releases the Ministerial Corporation may, by giving notice to the Licensee not later than 13th February in any Water Year, specify a volume to be transferred to the Murrumbidgee River Drought Account ("Murrumbidgee River Drought Account Nominated Transfer Volume").</p> <p>(2) Each Murrumbidgee River Drought Account Nominated Transfer Volume must not be greater than:</p> <p>(a) 100GL; and</p> <p>(b) the applicable Snowy-Tumut Development Forced Releases, whichever is the lesser volume.</p> <p>(3) At the beginning of the Water Year following a Murrumbidgee River Drought Account Nominated Transfer Volume being notified by the Ministerial Corporation under subclause 16.6(1), the Licensee must transfer the Murrumbidgee River Drought Account Nominated Transfer Volume to Above Target Water in Snowy Scheme storages by:</p> <p>(a) crediting the Murrumbidgee River Drought Account by the Murrumbidgee River Drought Account Nominated Transfer Volume; and</p> <p>(b) reducing the Required Annual Release for the Snowy-Tumut Development for that Water Year by the Murrumbidgee River Drought Account Nominated Transfer Volume.</p> <p>16.7 Transfers From The Snowy-Tumut Development Required Annual Release to the Murrumbidgee River Drought Account Generally</p>

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		<p>(1) If at any time:</p> <ul style="list-style-type: none"> (a) there is a nil balance in the Snowy-Tumut Development DISV Reserve Account; and (b) the balance of Murrumbidgee River Drought Account is less than 150GL, <p>the parties may agree to transfer a further volume into the Murrumbidgee River Drought Account ("Murrumbidgee River Drought Account Agreed Transfer Volume").</p> <p>(2) Each Murrumbidgee River Drought Account Agreed Transfer Volume must not be greater than the volume by which the balance of the Murrumbidgee River Drought Account is less than 150GL.</p> <p>(3) A Murrumbidgee River Drought Account Agreed Transfer Volume is to be achieved by the Licensee transferring the Murrumbidgee River Drought Account Agreed Transfer Volume to Above Target Water in Snowy Scheme storages by:</p> <ul style="list-style-type: none"> (a) crediting the Murrumbidgee River Drought Account by the Murrumbidgee River Drought Account Agreed Transfer Volume; and (b) reducing the Required Annual Release for the Snowy-Tumut Development for that Water Year by the Murrumbidgee River Drought Account Agreed Transfer Volume. <p>(4) For the avoidance of doubt this clause 16.7 of Schedule Four:</p> <ul style="list-style-type: none"> (a) operates in addition to; and (b) does not depend on, preclude, or act as a pre-condition to any transfer under, clause 16.6 of Schedule Four. <p>16.8 Accounting Transactions When Storages Fall Below Target Storage: Snowy-Murray Development DISV Reserve Account and Snowy-Tumut Development DISV Reserve Account</p> <p>(1) Despite any other clause in this clause 16 of Schedule Four:</p> <ul style="list-style-type: none"> (a) each time that the storage in the Snowy-Murray Development less the Above Target Water in the Snowy-Murray Development increases from being below the relevant target storage set out in clause 8.1 of this Schedule Four to being at or above that target storage, the balance of the Snowy-Murray Development DISV Reserve Account is deemed to be zero; and (b) each time that the storage in the Snowy-Tumut Development less the Above Target Water in the Snowy-Tumut Development increases from being below the relevant target storage set out in clause 8.1 of this Schedule Four to being at or above that target storage, the balance of the Snowy-Tumut Development DISV Reserve Account is

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		<p>deemed to be zero.</p> <p>(2) For the avoidance of doubt, nothing in this clause 16.6 of Schedule Four has the effect of transferring water that was in the Snowy-Murray Development DISV Reserve Account or in the Snowy-Tumut DISV Reserve Account into Above Target Water.</p> <p>16.9 River Murray Drought Account and Murrumbidgee River Drought Account: Forced Releases From the Snowy Scheme</p> <p>(1) If, during a Water Year:</p> <p>(a) There is a balance in the River Murray Drought Account; and</p> <p>(b) both:</p> <p>(i) the Licensee deems it necessary (acting reasonably) to make a release from the Snowy-Murray Development to avoid a physical spill from either or both of Eucumbene Dam and Jindabyne Dam ("Snowy-Murray Development Forced Release"); and</p> <p>(ii) as at the end of that Water Year, the Licensee is accounted as having released Above Target Water from the Snowy-Murray Development,</p> <p>the River Murray Drought Account must be debited by the lesser of:</p> <p>(c) The balance in the River Murray Drought Account; and</p> <p>(d) the volume of the Snowy-Murray Development Forced Release,</p> <p>(each volume so debited an "Applied Snowy-Murray Development Forced Release Volume").</p> <p>(2) If, during a Water Year:</p> <p>(a) There is a balance in the Murrumbidgee River Drought Account; and</p> <p>(b) both:</p> <p>(i) the Licensee deems it necessary (acting reasonably) to make a release from the Snowy-Tumut Development to avoid a physical spill from either or both of Eucumbene Dam and Tantangara Dam ("Snowy-Tumut Development Forced Release"); and</p> <p>(ii) as at the end of that Water Year, the Licensee is accounted as having released Above Target Water from the Snowy-Tumut Development,</p> <p>the Murrumbidgee River Drought Account must be debited by the lesser of:</p> <p>(c) The balance in the Murrumbidgee River Drought Account; and</p>

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		(d) the volume of the Snowy-Tumut Development Forced Release, (each volume so debited an “Applied Snowy-Tumut Development Forced Release Volume”).
