

It's not the science, it's how you use it....

MDBA justifies proposed amendments to the Basin Plan based on best available science. Yet the amendments proposed allow the science to be ignored for political gain.

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Introduction

The Murray Darling Basin Authority (MDBA) is proposing a major amendment to the Murray Darling Basin Plan based on its Northern Basin Review,¹ conducted over four years. The amendment would reduce the water recovery targets for the Northern Basin from 390 GL to 320 GL per year, a reduction of 70 GL. This amendment is subject to a disallowance motion in the Senate, to be voted on by 14 February 2018. A second amendment to reduce the water recovery target in the Southern Basin by 605 GL has also been tabled in parliament.² This motion is also subject to a disallowance, to be decided by April 2018 at the latest.

MDBA has said:

The Northern Basin Review was a thorough, science and evidence based assessment of water management settings for the northern Basin, undertaken over a four-year period.

It is a legislated requirement of the Basin Plan—and a core objective of the MDBA—to achieve the best possible balance between social, economic and environmental outcomes in implementing the Plan.³

This report highlights that whilst MDBA claims to base its recommendations on best available science, the proposed amendments allow MDBA and States change the SDLs in a valley without considering the science.

All community members, including irrigators, should be wary about the proposed amendments to the Basin Plan, which have much greater implications than changing the water recovery targets in the Northern Basin.

¹ Basin Plan Amendment Instrument 2017 (No. 1), [F2017L01462]

² Basin Plan Amendment (SDL Adjustments) Instrument 2017

³ MDBA, 8 February 2018, *Murray–Darling Basin Authority stands by assessment of impacts on South Australia*

AMENDMENT TO ADJUST SUSTAINABLE DIVERSION LIMITS BETWEEN VALLEYS INCONSISTENT WITH WATER ACT AND BASIN PLAN

Sustainable Diversion Limits (SDL) are a key plank in the Basin Plan reform, as they determine how much water can be legally extracted from each valley. They set the high-level sharing of water between irrigation and maintaining river health.

The Water Act states that in setting the SDLs, MDBA

- must: act on the basis of best available scientific knowledge and socio-economic analysis;⁴
- take into account the principles of ecologically sustainable development;⁵ and
- give effect to relevant international agreements.⁶

MDBA has undertaken two reviews over four years which form the basis of the amendments that recommend changes to the SDLs; the Northern Basin Review and the Sustainable Diversion Adjustment Mechanism.

The Northern Basin Amendment includes a provision for States to request a reallocation of the SDLs between valleys after MDBA has set the SDLs based on best available science (shown at Attachment A).⁷

This amendment allows States to vary SDLs by valley, entirely separate to MDBA's conclusions and recommendations through the Northern Basin Review and the SDL Adjustment Mechanism. Such a change would be outside any parliamentary process, and without a requirement to use best available scientific knowledge and socio-economic analysis, principles of ecologically sustainable development, or relevant international agreements.

That is, any scientific process used to determine the SDLs can be subsequently replaced with a political process by the MDBA and the States.

MDBA did not consult publicly on this proposed change in the amendment.

⁴ S21(4)(b)

⁵ S21(4)(a)

⁶ S21(1)

⁷ S6.05

CAP FACTORS

Cap Factors are defined as the average volume of water that can *actually* be taken under a licence, share or entitlement, compared to the *nominal volume* of the licence, share or entitlement. Cap factors represent government assessments of the long-term security of water supply. Among other things, Cap Factors are used to determine water recovery targets. They are equivalent to an exchange, allowing comparison between different entitlement types and between different river valleys. This equation used to be hardwired to long run water models and actual water usage.

Because Cap Factors are a measure of water availability and security of supply, they are linked to the cost and availability of finance for water holders. Changes to Cap Factors affect the water market and any finance linked to water.

Despite the importance of Cap Factors to the SDL, water recovery targets, the water market, and the availability and cost of finance, their calculation is not transparent.

MDBA and NSW are negotiating Cap Factors to support the argument that there should be no further recovery in the Macquarie and Gwydir Valleys, claiming that these valleys are 'over-recovered'.⁸ It has been implied that this water will be returned to irrigation use.

MDBA has also proposed to state managers of environmental water, and some wetland managers, that the environment may keep the 'over recovered' amount if advocates agree for the water to be rebadged as efficiency savings to count towards the 450 GL 'up water'.⁹

There is no transparency about how the Cap Factors are calculated and the calculation method is not applied consistently across valleys.

BASELINE DIVERSION LIMITS

The Baseline Diversion Limit (BDL) is the assessment of how much water was extracted at the 2009 level of development. The Baseline Diversion Limit minus the water recovery target equals the Sustainable Diversion Limits.

⁸ MDBA, November 2016, *Northern Basin Review Report*

⁹ MDBA General Manager - Ecohydrology, made this offer to Macquarie Marshes landholders and Office of Environment and Heritage staff on 15 November 2017.

The BDL change if Cap Factors change. The Cap Factors proposed by New South Wales Department of Primary Industries in August 2017¹⁰ increased the BDL in the Northern Basin by 122 GL in addition to MDBA's proposed reduction of 70 GL. The effect of this should be a corresponding increase in the Sustainable Diversion Limit.

That is, the Sustainable Diversion Limit in the Northern Basin (SDL) should increase by a total of 192 GL. So, whilst the SDL is required to be based on best available science, it can be altered by changing the Cap Factors.

The proposed additional 122 GL to the BDL due to changed cap factors was not included in MDBA's analysis to support its recommendation to reduce water recovery by 70 GL.¹¹

NSW and MDBA committed¹² to finalise the Cap Factors by March 2018. Until the Cap Factors are finalised, it is not possible to know what the Sustainable Diversion Limit will be. It is a concern that finalisation of Cap factors is being delayed until after both amendments are able to be disallowed.

CONCLUSION

Two amendments to the Basin Plan are before parliament to change the SDLs for Murray-Darling Basin valleys. The Water Act requires that MDBA must set the SDLs based on best available science and socio-economic analysis. However, one of amendments includes a provision for MDBA and the States to subsequently change the SDLs without considering the science or socio-economic analysis and away from the parliamentary process.

In addition to this proposed change the SDLs can be further changed by MDBA and the States changing Cap factors. It is a concern that finalisation of Cap factors is being delayed until after both amendments are able to be disallowed.

¹⁰ NSW Department of Primary Industries, (August 2017), *Planning assumption principles relating to water recovery and compliance with surface water Sustainable Diversion Limits in the Murray-Darling Basin: Working draft for SOG review*

¹¹ MDBA, November 2016, *Northern Basin Review Report*

¹² SuperSAP – Sydney – 11&12th December 2017

PROPOSED AMENDMENT - S6.05

[16] Section 6.05

Substitute:

6.05 SDL resource unit shared reduction amount

(1) For column 2 of the table in Schedule 2, the ***SDL resource unit shared reduction amount*** for an SDL resource unit in one of the zones mentioned in subsection (2) is the amount, in GL per year, determined in accordance with this section.

Note: Subsection (4) provides a default distribution of shared reduction amounts within zones. Subsections (5)-(14) deal with requests for different distributions made by the Basin States.

(2) For this section, there are 6 zones:

(a) the ***northern Basin Queensland zone***, made up of the following SDL resource units:

- (i) Condamine-Balonne (SS26);
- (ii) Moonie (SS25);
- (iii) Nebine (SS27);
- (iv) Paroo (SS29);
- (v) Queensland Border Rivers (SS24);
- (vi) Warrego (SS28); and

(b) the ***northern Basin New South Wales zone***, made up of the following SDL resource units:

- (i) Barwon-Darling Watercourse (SS19);
- (ii) Gwydir (SS22);
- (iii) Intersecting Streams (SS17);
- (iv) Macquarie-Castlereagh (SS20);
- (v) Namoi (SS21);
- (vi) NSW Border Rivers (SS23); and

(c) the **southern Basin Victoria zone**, made up of the following SDL resource units:

- (i) Broken (SS5);
- (ii) Campaspe (SS7);
- (iii) Goulburn (SS6);
- (iv) Kiewa (SS3);
- (v) Loddon (SS8);
- (vi) Ovens (SS4);
- (vii) Victorian Murray (SS2); and

(d) the **southern Basin New South Wales zone**, made up of the following SDL resource units:

- (i) Lower Darling (SS18);
- (ii) Murrumbidgee (SS15);
- (iii) New South Wales Murray (SS14); and

(e) the **southern Basin South Australia zone**, made up of the following SDL resource units:

- (i) Eastern Mount Lofty Ranges (SS13);
- (ii) South Australian Murray (SS11); and

(f) the **southern Basin Australian Capital Territory zone**, made up of the Australian Capital Territory (surface water) SDL resource unit (SS1).

(3) For this section, the reduction targets for the zones are as follows:

- (a) northern Basin Queensland zone—17 GL per year;
- (b) northern Basin New South Wales zone—24 GL per year;
- (c) southern Basin Victoria zone—425.3 GL per year;
- (d) southern Basin New South Wales zone—458 GL per year;
- (e) southern Basin South Australia zone—82.8 GL per year;

(f) southern Basin Australian Capital Territory zone—4.9 GL per year.

Default distribution of shared reduction amounts

(4) Subject to subsections (5) to (14), the SDL resource unit shared reduction amount for SDL resource units in a zone is calculated, as at 31 December 2016, by allocating the reduction target for the zone among the SDL resource units in proportion to the amount, for each SDL resource unit, of its BDL, including any component of water diverted for urban water use, but excluding any component due to interception activities.

Redistribution of shared reduction amounts at request of Basin State

(5) A Basin State may make a re-allocation adjustment request.

(6) For this section:

re-allocation adjustment request means a request by a Basin State to the Authority to adjust the SDL resource unit shared reduction amounts for SDL resource units that are within a zone mentioned in subsection (2), being a request that:

(a) is made for the purposes of this section:

(i) before 1 July 2018; and

(ii) before any water resource plan is submitted by the State for a water resource plan area in the zone (excluding any water resource plan submitted before the amendment of this section by the *Basin Plan Amendment Instrument 2017 (No. 1)*); and

(b) has the effect that:

(i) the total of the SDLs for each zone remains the same; and

(ii) no SDL resource unit has an SDL that is larger than would result from replacing its shared reduction amount with zero; and

(c) takes into account the amount of water already recovered by the Commonwealth at the time of the request (and does not, for example, request an SDL resource unit shared reduction amount for a unit that is lower than the amount of water already recovered by the Commonwealth at the time of the request).

Note: An earlier request referred to in section 7.14A is not a re-allocation adjustment request for the purposes of this section. A Basin State may, if it has made such an earlier request, confirm it (provided it satisfies paragraphs (b) and (c)) or vary it by making a re-allocation adjustment

request for the purposes of this section. Otherwise, the default shared reduction amounts under subsection (4) will apply.

(7) A re-allocation adjustment request may not be varied or replaced once made.

(8) If the Authority receives a re-allocation adjustment request, the Authority must, as soon as practicable, publish the requested SDL resource unit shared reduction amounts for SDL resource units in the relevant zone on its website.

Variations due to changes in water recovery

(9) A Basin State may:

(a) after making a re-allocation adjustment request and by 31 December 2018;
or

(b) if no re-allocation adjustment request has been made—between 1 July 2018 and 31 December 2018;

make a request to the Authority for variations to the SDL resource unit shared reduction amounts for SDL resource units in a zone.

(10) A request under subsection (9):

(a) must comply with paragraph (6)(b); and

(b) must take into account the amount of water already recovered by the Commonwealth at the time of the request (and must not, for example, request an SDL resource unit shared reduction amount for a unit that is lower than the amount of water already recovered by the Commonwealth at the time of the request); and

(c) must not change the SDL resource unit shared reduction amounts for SDL resource units in a water resource plan area for which a water resource plan has already been submitted.

(11) The Authority must consult with the Department upon receiving a request under subsection (9) that complies with subsection (10).

(12) The Authority may agree to the requested variations if both the Authority and the Department consider that it is appropriate for the Authority to do so in order to accommodate changes in the expected amount of water recovery in relevant SDL resource units.

(13) If the Authority agrees to the requested variations, the Authority must update any relevant amounts that had been published under subsection (8) to reflect the variations.

Effect of publishing shared reduction amounts

(14) If the Authority publishes an SDL resource unit shared reduction amount for an SDL resource unit on its website under this section, that amount is the SDL resource unit shared reduction amount for the relevant unit.