APPENDIX B-14 PROPOSED COMPENSATION STRATEGY AND OPTIONS FOR DOWNSTREAM WATERHARVESTERS

PROPOSED COMPENSATION STRATEGY AND OPTIONS FOR DOWNSTREAM WATERHARVESTERS

The purpose of this paper is to facilitate discussion aimed at establishing a compensation strategy and options for unsupplemented irrigators impacted by Nathan Dam. At this stage the aim is to develop an acceptable process rather than enter into individual negotiations, which will occur only if and when the dam moves to the construction phase.

Modelling carried out as part of the Nathan Dam and Pipelines EIS shows that existing unsupplemented irrigators in the ponded area and downstream of Nathan Dam would be adversely affected following construction. The single irrigator in Zone M (within the Nathan Dam water storage area) is a special case, so this discussion focusses on downstream impacts as a result of flow regime change.

Impacts vary depending on the location of the unsupplemented licence. Table 1 summarises the predicted impacts on Mean Annual Diversions (MAD) in each of the specified management zones.

Table 1. Unsupplemented irrigation (Dawson River) – mean annual diversions

Sub-scheme	Management Zones	Full Entitlement	'With Dam' Scenario		
		Mean Annual Diversion	Mean Annual Diversion	Change to Mean Annual Diversion	
		(ML/a)	(ML/a)	(ML/a)	(%)
Upper Dawson	Dawson M	304	133	-171	-56%
	Dawson K	905	662	-243	-27%
	Dawson J	7,504	6,697	-807	-11%
	Dawson I	2,058	1,813	-245	-12%
	Dawson H	8,151	7,150	-1,001	-12%
	Dawson G	5,303	4,179	-1,124	-21%
	Dawson F	1,082	813	-269	-25%
	Dawson E	3,180	3,103	-77	-2%
Lower Dawson	Dawson D	6,856	6,235	-621	-9%
	Dawson C	1,735	1,620	-115	-7%
	Dawson B +A	8,885	7,518	-1,368	-15%
	Dawson A	97	97	0	0%
	Total	46,060	40,021	-6,040	-13%

For example, changes to MAD volume vary from a high of 56% in Zone M to as low as 2% in Zone E. Generally the affect on annual diversion volume is proportionately less further downstream from the proposed site of Nathan Dam, which is largely due to the influence of inflows from tributaries downstream of the dam site. The average reduction in mean annual diversion volume is 13%.

To commence discussions, SunWater suggests the following.

In determining a suitable compensation methodology the following key principles should be considered:

1. Any compensation strategy should be simple, fair and equitable.
2. The overall aim of the strategy is to ensure no individual is disadvantaged.
3. The compensation strategy will apply to all affected unsupplemented licence holders, including licences not currently being actively utilised.
4. The strategy should ensure there is no forced reduction in overall agricultural production from the region.
5. Compensation would not occur until Nathan Dam is approved and construction is complete.
6. Compensation would be a one-off process and not subject to ongoing or annual claims.
7. Compensation would be agreed between the proponent and individual unsupplemented licence holders based on the impact on their enterprise and their unsupplemented water allocation volume. In order to achieve point 4, compensation is expected to take the form of a medium priority (MP) allocation substitution to replace unsupplemented MAD reduction (see below for ratio considerations).

Financial compensation may be included to cover ancillary costs that are not apparent as part of allocation substitution (see below for examples of ancillary costs that may be considered for financial compensation).

Medium Priority Allocation Substitution considerations

- Loss of MAD of unsupplemented water
- Reduction in Annual Volume Probability (AVP) of the residual MAD, i.e. reduction in the reliability of the remaining unsupplemented water
- Continued ability to divert unsupplemented flows when available
- Volume of MP allocation required to achieve the same average annual area of cropping.
- Reliability of supply based on modelling outcomes from the Water Resource (Fitzroy Basin) Plan 2011 (WRP).
- MP allocation provided would be an identical product to the current MP allocation utilised in the Dawson Valley Water Supply Scheme (DVWSS). This will enable trading and ensure water accounting in the scheme remains simple and cost-effective.
- Additional annual charges relating to MP versus unsupplemented allocation.
- Compensation ratio of unsupplemented water volume with medium priority water allocation volume to be based on Water Allocation Security Objectives listed in schedule 7 of the WRP.
- Consideration of charges for substitute MP Allocation as per existing DVWSS MP allocation charges.

Financial compensation considerations

- Infrastructure redundancy or changes required to source MP allocation, for example smaller pumps, mainline, etc. (It is noted that in some cases infrastructure to pump at smaller volumes will already be installed.)
- Additional pumping costs when accessing water from a lower level.
- Legal costs associated with developing and agreeing on compensation packages.
- Ongoing charges associated with the substitute MP allocations. SunWater proposes that the difference in charges be compensated as a one-off payment based on a present value sum taken across an agreed period.

- Compensation for loss of water entitlements during the initial dam filling period will not be necessary as filling rules will be implemented to ensure ongoing access to supplemented and unsupplemented water supplies and environmental flows.

PROPOSED OUTLINE METHOD TO CALCULATE RATIO OF VOLUME COMPENSATION BETWEEN UNSUPPLEMENTED WATER ALLOCATION AND MEDIUM PRIORITY SUPPLEMENTED WATER ALLOCATION.

This method needs further work on Step 5 (for the reduction in AVP of the residual MAD). However, this last step would be undertaken only when the actual compensation is being negotiated with individual waterharvesters.

Steps

1. In the Water Resource Plan, identify the water allocation group (WAG) to which the irrigator belongs. Find the associated AVP (Schedule 7, Table 1). For convenience, use Table 2 below if the ROP zone is known.

Table 2 Unsupplemented WAGs and associated AVPs

ROP zone	Unsupplemented WAG and associated AVP (%)	
M	12A (15 cumec) – 63%	n/a
K	12A (15 cumec) – 63%	n/a
J	11A (15 cumec) – 63%	11B (30 cumec) – 60%
I	11A (15 cumec) – 63%	11B (30 cumec) – 60%
H	11A (15 cumec) – 63%	11B (30 cumec) – 60%
G	11A (15 cumec) – 63%	11B (30 cumec) – 60%
F	11A (15 cumec) – 63%	11B (30 cumec) – 60%
E	10A (15 cumec) – 68%	10B (30 cumec) – 68%

2. The compensation ratio is calculated as follows:
    - *(AVP of the WAG) / (MP water allocation monthly WASO; 82%)*
3. From the AEIS report for Nathan Dam (Table 1 above) identify the volume reduction in the relevant ROP zone ("Full entitlement" MAD less the "with Dam" MAD). Assign the correct proportion of the volume reduction to the individual irrigator.

4. Calculate the compensation MP water allocation volume using the compensation ratio.

5. Finally, calculate the factor to compensate for the reduction in AVP of the residual unsupplemented MAD

A worked example: This is a fictitious example. Mr Smith owns an unsupplemented water allocation (15 cumec or 1296 ML/day threshold) in ROP zone G with a nominal volume of 1000 ML The nominal volume will be detailed on the unsupplemented water allocation (and also summarised in the Fitzroy Resource Operations Plan). For this example, assume that the sum of all the nominal volumes of unsupplemented water allocations in zone G is 5000 ML (this information will also be summarised in the Fitzroy Resource Operations Plan. Mr Smith's compensation MP water allocation volume would be calculated as follows:

Step 1: From Table 2 above, Smith belongs in WAG 11A. His associated AVP is 63%

Step 2: Compensation ratio is 63 / 82 = 76.8 %

Step 3: From Table 1 above, the reduction in MAD is 5303-4179 =1124 ML. Smith's proportion of the MAD reduction is 1124 x {1000/5000} = 224.8 ML unsupplemented nominal volume.

Step 4: Compensation MP water = 224.8 ML x 76.8% = 172.6 ML (rounded to 173 ML MP)

Step 5: Calculate the additional compensation (if required) for the reduction in AVP of the residual unsupplemented MAD. (This step would only be done in final negotiations).

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