

**ANNEXURE D  
BULK ENTITLEMENT**

96.19.04.

Loy Yang Power Ltd

Bulk Entitlement ---- 40 Gigalitre/annum  
Low Quality Water From Latrobe River at Yallourn.

30 March 1996

## **WATER ACT 1989**

### **Bulk Entitlement (Yallourn Energy Ltd for Loy Yang Power Ltd) Conversion Order 1996**

I, Charles Geoffrey Coleman, Minister administering the **Water Act 1989**, make the following Order:-

#### **1. CITATION**

This Order may be cited as the Bulk Entitlement (Yallourn Energy Ltd for Loy Yang Power Ltd) Conversion Order 1996.

#### **2. EMPOWERING PROVISIONS**

This Order is made under sections 43 and 47 of the **Water Act 1989**.

#### **3. COMMENCEMENT**

This Order comes into operation on the day on which it is published in the Government Gazette.

#### **4. DEFINITIONS**

In this Order -

"Act" means the **Water Act 1989**;

"AHD" means the Australian Height Datum

"Authority" means Yallourn Energy Limited (ACN 065 325 224) (a generation company within the meaning of the Electricity Industry Act 1993);

"capacity share" means a water entitlement which is expressed as a percentage share of all or any of the following depending on the context in which the expression is used -

- (a) storage capacity; and
- (b) inflows to the storage; and
- (c) storage and transmission losses; and
- (d) storage release capacity; and
- (e) unregulated flow; and

(f) water carrier capacity;

**"entitlement holder"** means a person holding a bulk entitlement under the Act;

**"Headworks Storages"** means the water supply works of Blue Rock Dam, Lake Narracan and Yallourn Weir;

**"Headworks System"** means -

(a) Headworks Storages; and

(b) the System Waterway;

**"Internal Spill"** means the redistribution of inflow shares which occurs where an Authority's share of inflow is in excess of the volume required to fill its share of storage capacity;

**"Latrobe Basin Water Accounts"** means an annual report, required by the Minister, on compliance by entitlement holders and licensees, respectively, in the Latrobe Basin, with the terms of their bulk entitlements or licences;

**"Licence"** means any licence granted under Part 4 of the Act;

**"other Authority"** means an Authority other than the Authority or any other person holding a bulk entitlement granted under Division 1 or 3 of Part 4 of the Act;

**"passing flow"** means an amount of flow referred to in the Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996 which the Storage Operator is obliged to pass at nominated points in the System Waterway;

**"pumping station"** means the works, jointly managed to supply water from the System Waterway to Loy Yang Power Limited and Mission Energy Limited, located adjacent to the Latrobe River approximately 300 m upstream of Yallourn Weir at co-ordinates 396623E, 268355N.

**"regulated release"** means any release from Blue Rock Reservoir or Lake Narracan excluding releases made by the Storage Operator to -

(a) provide passing flows; or

(b) pass floodwaters; or

- (c) pass flows which cannot be stored; or
- (d) secure the safety of the Headworks Storages under emergency situations;

**"reservoir entitlement holders"** means all Authorities holding a bulk entitlement in respect of Blue Rock Reservoir at the relevant time;

**"Resource Manager"** means any person appointed by the Minister to do all or any of the following -

- (a) prepare the Latrobe Basin Water Accounts; and
- (b) monitor whether entitlement holders in the Latrobe Basin comply with the conditions of their bulk entitlements; and
- (c) investigate and mediate disputes between entitlement holders in the Latrobe Basin; and
- (d) investigate and deal with significant unauthorised uses of water in the Latrobe Basin; and
- (e) supervise the qualification of any rights to water made by the Minister during periods of declared water shortage under section 13 of the Act.

**"river regulation costs"** means those costs attributed to the accounting and operating arrangements, established under the Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996, to manage the sharing of unregulated flow;

**"source costs"** means the total annual cost to -

- (a) operate, maintain and administer the Headworks System; and
- (b) make releases from the Headworks System (excluding the river regulation costs); and
- (c) meet the financial charges associated with any new or enhancement works undertaken on the Headworks Storages; and
- (d) make an appropriate allowance for depreciation of works associated with the Headworks System, except Lake Narracan and Yallourn Weir, using the deprival value approach or such other depreciation methodology adopted by

the Victorian Department of Treasury and Finance to apply to Authorities; and

- (e) manage the catchment for water supply purposes to protect the quality of water diverted to, and stored in, the Headworks System; and
- (f) manage the stream gauging stations necessary to operate the Headworks System; and
- (g) implement the program established under the Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996, to manage the environmental effects of the Headworks System;

**"Storage Operator"** means any person appointed by the Minister to operate the Headworks System, to manage or measure the flow into the headworks system or System Waterway, to keep, and report on, the water accounts of the capacity shares, or to do all or any of them;

**"System Waterway"** means the Tanjil River between Blue Rock Reservoir and the Latrobe River, and the Latrobe River downstream of its confluence with the Tanjil River, including the pools formed by, and immediately upstream of, the Blue Rock and Narracan Dams and Yallourn Weir;

**"unregulated flow"** means any flows in the waterway which cannot be attributed to a regulated release or discharge from the works of an industrial company or other Authority;

**"year"** means the 12 months next following 1 July.

## 5. **CONVERSION TO BULK ENTITLEMENTS**

Only that part of the Authority's entitlement to water from the System Waterway to supply the electricity generation works at Loy Yang is converted to a bulk entitlement on the conditions set out in this Order.

## 6. **BULK ENTITLEMENT**

- 6.1 The Authority may take the share of flow from the waterway to meet its requirements up to an annual total of 40 000 ML.
- 6.2 The total annual amount of regulated releases from the Authority's share of Blue Rock Reservoir must not exceed 18 330 ML.

6.3 Subject to section 46 of the Act, this bulk entitlement may be transferred

- (a) temporarily or permanently;
- (b) in whole or in part;
- (c) for any purpose, including an in-stream use of water.

6.4 The Minister may vary the annual maximum amount of diversion or regulated release specified under sub-clauses 6.1 and 6.2 respectively for the purpose of making any transfer of this bulk entitlement authorised under section 46 of the Act .

## 7. SHARE OF CAPACITY

The Authority is entitled to -

- (a) a 16.40% share of the total storage capacity of Blue Rock Reservoir, where the total storage capacity is 208 200 ML at a full supply level of 140.00 metres AHD; and
- (b) a 32.80% share of the total storage capacity of Lake Narracan, where the total storage capacity is 8000 ML at a full supply level of 47.7 metres AHD; and
- (c) all water stored in its share of the storages specified in this sub-clause less a share of losses. Losses are to be assessed as specified in Schedule 1.

## 8. SHARE OF FLOW

8.1 The Authority may -

- (a) after the passing flows requirements have been met, store 16.40% of all the inflow into Blue Rock Reservoir from the catchment up to that amount required to fill its share of storage capacity;
- (b) after the passing flows requirements have been met, store 24.55% of unregulated inflow into Lake Narracan to fill its share of storage capacity;
- (c) store a greater proportion of the inflow where part of that inflow is assessed by the Storage Operator, as specified in Schedule 1, as an internal spill;

- (d) take, via the Pumping Station, up to the joint limit (with Mission Energy Management Australia Pty Ltd) of 226 ML/d -
  - (i) any flow released from Lake Narracan as ordered by the Authority specifically for that purpose; and
  - (ii) 24.55% of the unregulated flow passing Lake Narracan; or
  - (iii) additional unregulated flow passing Lake Narracan subject to the additional flow in excess of the Authority's flow share -
    - (A) not being used by any other Authority holding an entitlement to that additional flow; and
    - (B) being shared with other Authorities holding a share of unregulated flow at this point in proportion to each of the Authorities' shares of unregulated flow.

8.2 The Authority must not take as part of its bulk entitlement or store in Blue Rock Reservoir or Lake Narracan any flow into the storage -

- (a) which is specified as the passing flow by the Storage Operator; or
- (b) which is being transferred by the holder of any other bulk entitlement; or
- (c) any flow into the storage when the Authority's share of the storage is full.

## 9. RELEASES

9.1 Subject to sub-clause 9.2 the capacity of the outlet works of Blue Rock Reservoir is to be shared in proportion to inflow shares between the reservoir entitlement holders.

9.2 The Authority, after consultation with any other Authorities holding an inflow share to Blue Rock Reservoir, may, within twelve months of the date of this Order, and then from time to time, propose to the Minister an alternate means to ensure a fair and reasonable means of sharing the capacity of the outlet works of the reservoir.

9.3 The Minister must -

- (a) approve all or any means proposed under sub-clause 9.2 where there is agreement to the proposal by all other Authorities holding



an inflow share; or

- (b) where all other Authorities cannot agree, refer the proposal to an independent expert established under sub-clause 19.2 for determination in accordance with clause 19.

## **10. SUPPLY OF WATER**

- 10.1 The Authority and the Storage Operator must endeavour to agree on operational arrangements -
  - (a) for the supply of water from the storages mentioned in clause 7; and
  - (b) to allow the Storage Operator to borrow storage capacity and/or volume in Lake Narracan for operational purposes.
- 10.2 If the Authority and the Storage Operator have not reached agreement under sub-clause 10.1 within twelve months of the date of this Order either party may give written notice to the other party requiring the matter to be determined in accordance with clause 19.

## **11. SUPPLY OF WATER FOR EMERGENCY PURPOSES**

- 11.1 The Authority may provide a supply to another Authority from its works during emergency situations, subject to there being an Agreement between the Authorities covering the operating arrangements, metering provisions and cost sharing arrangements covering the emergency supply.
- 11.2 Any water supplied by the Authority under sub-clause 11.1 is to be credited back to the Authority's entitlement for the purpose of clause 6.

## **12. METERING PROGRAM**

- 12.1 The Authority must install a flow meter on the pipeline offtake from the pumping station to record all water taken by the Authority under this bulk entitlement.
- 12.2 The Authority must provide the Minister with details of any agreement between the Authority and any other person for measuring water taken or the apportionment of water taken from the pumping station between this bulk entitlement and any other bulk entitlement.
- 12.3 The Minister may require the Authority to upgrade the metering equipment if, in the Minister's opinion, it is, at any time, no longer reliable or accurate.

12.4 The Authority must, at its cost -

- (a) operate and maintain metering equipment and any associated measurement structures in good condition and ensure that metering equipment is periodically re-calibrated, in accordance with any guidelines issued by the Minister; and
- (b) implement any request by the Minister to upgrade the metering equipment; and
- (c) keep a record of all work undertaken under paragraphs (a) and (b) of sub-clause 12.4.

### 13. REPORTING REQUIREMENTS

13.1 The Minister may require the Authority to report on all or any of the following matters, as provided in this clause:

- (a) the daily amount of water taken by the Authority from the waterway at its pumping station;
- (b) the daily amount of water returned to the System Waterway or tributary streams from the works of the Authority;
- (c) the daily amount of water supplied to another Authority from the works of the Authority under clause 11;
- (d) the annual amount of water taken by the Authority from the waterway at its pumping station;
- (e) the annual amount of water supplied to another Authority from the works of the Authority under clause 11;
- (f) the work undertaken as part of the metering program under sub-clause 12.4;
- (g) any temporary or permanent transfer of all or part of this bulk entitlement;
- (h) any bulk entitlement or licence in respect of the waterway temporarily or permanently transferred to the Authority;
- (i) any amendment to this bulk entitlement;
- (j) any failure by the Authority to comply with any provision of this bulk entitlement;

- (k) any existing or anticipated difficulties experienced by the Authority in complying with this bulk entitlement and any remedial action taken or proposed by the Authority.
- 13.2 The Minister may require the Authority to report on all or any of the matters set out in sub-clause 13.1 -
- (a) in writing or in such electronic form as may be agreed between the Authority and the Minister; and
  - (b) within 14 days of receiving the Minister's written request or such longer period as the Minister may determine.
- 13.3 The Authority must, for the period of the preceding year, report, by 1 August in any year, to the Minister on each of the matters set out in sub-clause 13.1, except paragraphs (a) to (c) of sub-clause 13.1;
- 13.4 The Resource Manager may require the Authority to report from time to time, on all or any of the matters set out in paragraphs (a) to (k) of sub-clause 13.1.
- 13.5 Any report under sub-clause 13.4 must be made -
- (a) in such form as may be agreed between the Authority and the person to whom the report is made; and
  - (b) unless the Authority and that person agree otherwise -
    - (i) within 24 hours of the Authority receiving a request for a report on any matter set out in paragraphs (a) to (c) of sub-clause 13.1; or
    - (ii) within 14 days of the Authority receiving a request for a report on any matter set out in paragraphs (d) to (k) of sub-clause 13.1.

#### **14. WATER RESOURCE MANAGEMENT COSTS**

- 14.1 Subject to sub-clause 16.1, the Authority must pay the Resource Manager a fair and reasonable proportion of the costs incurred by the Resource Manager to -
- (a) prepare the Latrobe Basin Water Accounts; and
  - (b) monitor whether entitlement holders in the Latrobe Basin comply with the conditions of their bulk entitlements; and

- (d) investigate and mediate disputes between entitlement holders in the Latrobe Basin; and
- (e) investigate and deal with significant unauthorised uses of water in the Latrobe Basin; and
- (f) supervise the qualification of any rights to water made by the Minister during periods of declared water shortage under section 13 of the Act.

14.2 The proportion of the costs referred to in sub-clause 14.1 will be as determined under sub-clause 16.5.

## 15. STORAGE OPERATOR COSTS

15.1 Subject to sub-clause 16.1 the Authority must pay the Storage Operator an annual source charge which will be determined according to sub-clause 15.2.

15.2 The Authority must pay the Storage Operator -

- (a) a percentage of the annual source charges for Lake Narracan and Yallourn Weir as follows -

$$C_s = \$ [0.3280 \times S \times (1 + m)] + [0.2455 \times r \times (1 + m)]$$

and

- (b) a percentage of the annual source charge for Blue Rock Reservoir as follows -

$$C_s = \$ 0.1640 \times S \times (1 + m)$$

where -

$C_s$  = the annual source charge.

$S$  = the estimated source costs for the year for which charges are prepared.

$r$  = the estimated river regulation costs for the year for which charges are prepared.

$m$  = the business margin set at 10% at the date of the Order. Any variation to this rate is to be mutually agreed as per sub-clause 17(a).

15.3 The annual source charge must be paid by the Authority each year whether or not water has been taken from the storages by the Authority in that year.

## 16. DUTY TO KEEP ACCOUNTS AND FIX PROPORTIONS

16.1 The Authority is not obliged to make any payment to -

- (a) the Resource Manager under clause 14; or
- (b) the Storage Operator under clause 15 -

unless the person to whom the payment is payable chooses to comply with the provisions of this clause relevant to those payments.

16.2 Separate accounts of all costs and payments must be kept -

- (a) by the Resource Manager in respect to clause 14; and
- (b) the Storage Operator in respect to clause 15.

16.3 The Water Authority responsible for the Headworks Storages must consult with the Authority on any proposal to undertake new or enhancement works on a Headworks Storage, providing reasonable detail and the need for those works, prior to undertaking those works.

16.4 The Authority may object to any proposal referred to in sub-clause 16.3 and may give written notice to the other party requiring the matter to be determined by referral to an independent expert in accordance with clause 19.

16.5 The Resource Manager must, by 1 March in any year, provide an estimate, in respect of the ensuing year, of a fair and reasonable proportion of the costs referred to in sub-clause 14.1.

16.6 The Storage Operator must, by 1 March in any year, in conjunction with the Water Authority responsible for the Headworks Storages, provide the Authority with an estimate of the annual source charge referred to in sub-clause 15.2, for the ensuing year.

16.7 Accounts required to be kept under this clause must be made available for inspection by the Authority upon request.

## 17. DUTY TO MAKE PAYMENTS

Any amount payable by the Authority under clauses 14 or 15 -

- (a) is to be based on the actual expenditure for the period specified in paragraph 17(b), unless otherwise set by mutual agreement between the Authority and the Storage Operator, and include any adjustment from a previous period to reflect the actual cost of the work; and
- (b) unless the Authority and the person to whom the amount is payable agree otherwise -
  - (i) must be paid quarterly in arrears, within 28 days of the Authority receiving an invoice for amounts payable under clause 14; and
  - (ii) must be paid monthly in arrears, within 28 days of the Authority receiving an invoice for amounts payable under clause 15.

## 18. DATA

- 18.1 The Minister will use the Minister's best endeavours to ensure that all hydrological and other data required by the Authority to comply with this bulk entitlement are made available to the Authority, free of charge.
- 18.2 The Authority must make available data collected for the purpose of the metering program and reporting under sub-clauses 12.1 and 13.1 to any person, subject to the person paying any fair and reasonable access fee imposed by the Authority, to cover the costs of making the data available.

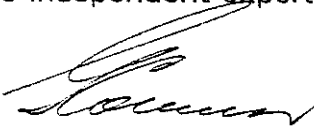
## 19. DISPUTE RESOLUTION

- 19.1 If any difference or dispute arises between the Authority, the Minister and, with his or her consent, the Resource Manager (the "parties") concerning the interpretation or application of this Order, which is not resolved within 14 days of it arising, any party may give written notice to the others requiring the matter to be determined by an independent expert, if it is not otherwise resolved, within 14 days of that notice.
- 19.2 The independent expert will be either -
  - (a) a person agreed on by the parties to the difference or dispute; or
  - (b) if those parties cannot agree, a person nominated by the President of the Institute of Arbitrators Australia.
- 19.3 The independent expert must reach a conclusion on the matter within 30 days of it being referred, but has power to extend the period for reaching

a conclusion on the matter by a further 30 days.

- 19.4 The independent expert must send a copy of the conclusion and its supporting reasons to each party to the difference or dispute.
- 19.5 (a) In any difference or dispute to which the Minister is a party, the independent expert must express the conclusion as a recommendation.
- (b) the Minister must consider any recommendation made under paragraph 19.5(a) before deciding to give a direction under section 307 or to take any other action under the Act in relation to the difference or dispute.
- 19.6 In any difference or dispute to which the Minister is not a party, any conclusion by an independent expert is final and binding on the parties.
- 19.7 The apportionment of the costs of and incidental to every reference, including the costs of the independent expert, shall be at the discretion of the independent expert.

Signed:



Geoff Coleman, Minister administering the **Water Act 1989**

Dated:

25-3-96

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Note: An explanatory note that accompanies this Order is available from the Water Bureau, Department of Conservation and Natural Resources.

## Schedule 1

### Evaporation Losses and Internal Spills

#### 1. Evaporation Losses

Evaporation losses from -

- (a) Lake Narracan are calculated using the formula

$$e = A \times E \times 0.01 \times (s1/s)$$

- (b) the Blue Rock Reservoir are calculated using the formula

$$e = A \times E \times 0.01 \times (s1/s)$$

where

- e - evaporation loss in ML
- s - volume of water in ML in either Lake Narracan or Blue Rock Reservoir as appropriate
- A - surface area in hectares corresponding to s
- E - pan evaporation in mm
- s1 - volume of water in ML in the Authority's share of Lake Narracan or Blue Rock Reservoir as appropriate

#### 2. Internal Spills

The amount of internal spill cannot exceed a volume equal to the amount by which the other entitlement holder's storage is below its full share. Any internal spill is to be redistributed in proportion to the inflow shares of those Authorities whose shares of storage capacity are not full.

#### 3. Storage Accounts

The storage accounts maintained by the Storage Operator will be adjusted for -

- (i) the share of inflow apportioned to the Authority;
- (ii) any internal spill;
- (iii) any release directed by the Authority to meet its water supply requirements including any allowances for in-transit losses; and
- (iv) any allowance for the Authority's share of evaporation losses or seepage losses from storage.





**WATER ACT 1989**  
**Application for approval of transfer of entitlement**

This form is for use in transfer of a whole bulk entitlement from one Authority (the transferor) to another Authority (the transferee), under section 46 of the Water Act 1989.

Name of the transferor YALLOURN ENERGY LTD.

Name of the transferee LOU YANG POWER LTD.

Name of Bulk Entitlement (the entitlement) being transferred in whole BULK ENTITLEMENT (YALLOURN ENERGY LTD FOR LOU YANG POWER LTD) CONVERSION ORDER 1996

State whether transfer is permanent or temporary PERMANENT

If transfer is temporary, give period of transfer. \_\_\_\_\_

Nominate the date at which the transfer (if approved) will become effective ~~30/3/1996~~

29/3/1996 *CR*

This transfer is not inconsistent with anything specified in the Order granting the entitlement under section 43(d) of the Water Act 1989.

The transferee agrees to accept the transfer of the entitlement.

John McMath

(Signature of transferee)

dated ~~30/3/1996~~

29/3/1996 *CR*

The transferor hereby applies for transfer of the entitlement

Frank Kaman

(Signature of transferor)

dated ~~30/3/1996~~

29/3/1996 *CR*

This Transfer is dated 30/3/1996

The Minister has considered this application and hereby approves of the transfer under the powers conferred under section 46 of the Water Act 1989.

[Signature]

(Signature of Minister administering the Water Act 1989) dated ~~30/3/1996~~

29/3/1996 *CR*

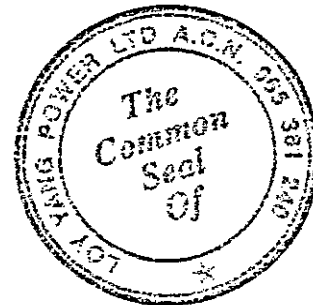
Authority to Complete

The company known as LOY YANG POWER LTD hereby authorises the Minister for Natural Resources, David Stringer, Campbell Fitzpatrick, Graeme Turner (or any one of them) to complete the attached transfer by inserting the date at which the transfer will become effective and inserting the date of the transfer. The transfer may only be completed if the bulk entitlement to which it relates has been duly granted.

Dated 1 MARCH 1996

The Common Seal of  
LOY YANG POWER LTD  
 was affixed in accordance  
 with its Articles of Association

in the presence of :



[Signature]

[Signature]

CLIVE LITTLE

JOHN McMATH

- DIRECTOR

CO-SECRETARY

Authority to Complete

The company known as Yallourn Energy Ltd hereby authorises the Minister for Natural Resources, David Stringer, Campbell Fitzpatrick, Graeme Turner (or any one of them) to complete the attached transfer by inserting the date at which the transfer will become effective and inserting the date of the transfer. The transfer may only be completed if the bulk entitlement to which it relates has been duly granted.

Dated 27/2 1996

The Common Seal of \_\_\_\_\_ )  
 )  
was affixed in accordance )  
with its Articles of Association )



in the presence of :

[Signature]  
\_\_\_\_\_  
DIRECTOR

[Signature]  
\_\_\_\_\_  
SECRETARY

## WATER ACT 1989

### Bulk Entitlement (Yallourn Energy Limited for Loy Yang Power Limited) Conversion Order 1996

#### Explanatory note to accompany Order

This note has been prepared to explain the basis and intent of this bulk entitlement granted in favour of Yallourn Energy Limited, which is referred to in the entitlement and this note as "the Authority". Yallourn Energy Limited, Loy Yang Power Ltd and SECV are Authorities for the purposes of Part 4 of the *Water Act 1989*. The share to which this Order relates will be transferred to Loy Yang Power Limited as soon as the Order is granted.

#### **General:**

This bulk entitlement is a source entitlement to store water in Blue Rock Reservoir and Lake Narracan and to take water from the Latrobe River. Lake Narracan is the reservoir created by the Yallourn Storage Dam.

Water harvested by Blue Rock Dam is shared by two electricity generation companies (Yallourn Energy Limited and Loy Yang Power Limited), the State Electricity Commission of Victoria (SECV) and the Central Gippsland Water Authority (CGWA). There is also a share of the water harvested that has not been allocated to an Authority.

The entitlement to water for the electricity generation companies and the SECV was previously established under an agreement between the State Rivers and Water Supply Commission (SR&WSC) and the SECV with the terms sanctioned under an Order in Council gazetted in 1979. The SECV entitlement to water was expressed as an annual volume of 150 000 ML which could be diverted from the Latrobe River between the Tanjil River and Morwell River Junctions.

On 31 January 1995, as an outcome of the disaggregation of the SECV, the entitlement established under agreement with the SR&WSC was transferred in its entirety to Yallourn Energy Limited under an allocation statement made pursuant to section 153B of the *Electricity Industry Act 1993*. Yallourn Energy Ltd agreed to allow Loy Yang Power Ltd and SECV to use this entitlement until alternative arrangements could be made.

These volumetric shares utilised by Yallourn Energy Ltd, Loy Yang Power Ltd and SECV are replaced by capacity sharing arrangements (shares of inflows, storage capacity and release capacity) in separate bulk entitlements. By the Order to which this note applies, the shares relating to all three entities are to be granted to Yallourn Energy Ltd in part conversion of the 1979 Order-in-Council. Shares applicable to Loy Yang Power Ltd and SECV will then be immediately transferred to them.

Separate bulk entitlements are also provided for CGWA and to the Gippsland and Southern Rural Water Authority (G&SRWA) to cover their entitlements from the Latrobe River system. Following a transfer from Yallourn Energy Ltd a part of the G&SRWA entitlement will be dedicated to the supply of water to Mission Energy Management Australia Pty Ltd pursuant to a licence to be granted under the *Water Act 1989* and the *Loy Yang B Act 1992*. A small part of the original entitlement for town supplies which has historically been made through SECV will revert to the SECV. The town supplies will be provided from the CGWA bulk entitlement.

This Order defines an Operator and a Resource Manager. The Operator will be responsible for the maintenance and physical operation of the headworks structures and will release water, where appropriate, to meet the requirements of the Authority holding an entitlement at that source. The Resource Manager has responsibility to ensure Authorities comply with their bulk entitlements and will keep the basin water accounts. G&SRWA will be initially appointed as both the Resource Manager and Storage Operator.

#### **Bulk Entitlement (Clause 6)**

The Authority is entitled to divert an annual amount of up to 40 000 ML in any year from the System Waterway for the supply to the generation works of Loy Yang Power Ltd. The diversion of this volume is conditional on the regulated release from Blue Rock Reservoir not exceeding 18 330 ML over the same period.

The Authority's principal site for diversion from the System Waterway is at the pumping station located approximately 300 m upstream of Yallourn Weir. This pumping station is operated by Loy Yang Power under an agreement to jointly supply its generation works and those generation works operated by Mission Energy Management Australia Pty Ltd.

The purpose of the upper limit on Blue Rock releases is to protect environmental spill flow regimes from the storage.

The 40 000 ML and 18 330 ML limits were determined from Run Number 0307 of February 1996 of the Latrobe System Simulation Model (LSSM). Specific details of this model are documented in - "Latrobe System Simulation Model, Run 0307 Specification" by the Department of Conservation and Natural Resources - Water Bureau.

#### **Share of Capacity (Clause 7)**

The Authority is entitled to a 16.40% of the storage capacity of Blue Rock Reservoir and 32.80% of the storage capacity of Lake Narracan (which was constructed solely to meet electricity generation requirements).

For the purpose of water accounting the Authority will be allocated 16.40% of the water stored in Blue Rock Reservoir and 32.80% of the water stored in Lake Narracan on the date that this Order comes into operation.

#### **Share of Flow (Clause 8)**

The Authority is entitled to 16.40% of the inflow into Blue Rock Reservoir and 24.55% of the unregulated inflow into Lake Narracan after the minimum passing flows have been provided. These flows are set out in the Bulk Entitlementment (Latrobe - Southern Rural) Conversion Order 1996. The unregulated inflow to Lake Narracan is jointly shared between the electricity generation companies, the SECV and G&SRWA. The 24.55% share available to the Authority is the product of the Authority's share (32.80%) to the total share of unregulated inflow available for electricity generation purposes (74.85%).

The size of the share of inflow to Blue Rock Reservoir was calculated on a pro-rata basis, between the notional entitlement apportioned to the Authority by SECV prior to disaggregation and the component share of Blue Rock water originally held by the SECV (under agreement with SR&WSC), and was subsequently adjusted to provide the level of security of supply requested by the Authority. The adjustment was made from the residual SECV share.

The size of the share of unregulated inflow to Lake Narracan was established on a pro-rata basis (in the same proportion as established for the adjusted share of Blue Rock inflows), between the Authority's bulk entitlement and the share of unregulated flow which would have been available to the SECV prior to the construction of Blue Rock Dam. The original SECV share of unregulated flow was established as the proportion of the annual SECV usage at that time to the total consumptive commitments from the Latrobe River (calculated as the total SECV usage plus the authorised Licence Volume).

The security of supply adopted in adjusting the Authority's share of flow and storage capacity was that the Authority would have 20% of water left in store at the end of the worst recorded drought which occurred in the period 1967 to 1968. Specific details of the establishment of the shares is provided in "Latrobe System Simulation Model, Run 0307 Specification".

#### **Releases (Clause 9)**

The capacity of the outlet works of Blue Rock Reservoir is to be shared in proportion to inflow shares between the reservoir entitlement holders.

The Authority may propose to the Minister an alternate means to ensure a fair and reasonable means of sharing the capacity of the outlet works of the reservoir. The intention of this clause was to cover situations where -

- SECV does not require release capacity in the short term;
- one or more shares of storage capacity are drawn below their share of dead storage and jeopardises access by other shareholders to their share of live storage;
- trading of storage capacity results in different proportions of storage capacity to inflow shares;
- differential drawdown between shareholders affects the shares of release capacity.

#### **Supply of Water (Clause 10)**

The Authority and Storage Operator must endeavour to agree on operational arrangements for -

- (a) the supply of water to the Authority; and
- (b) to allow the Storage Operator to borrow storage capacity or water from the Authority to improve operational efficiency in providing the passing flow requirements.

Borrowing arrangements would not be permitted in any circumstance where the Authority's security of supply would be adversely affected. Borrowed water would be paid back from the inflow share held by the Gippsland and Southern Rural Water Authority.

#### **Supply Of Water For Emergency Purposes (Clause 11)**

The Authority may provide a supply from its works to another Authority during emergency situations, subject to there being an Agreement between the Authorities covering the operating arrangements, metering provisions and cost sharing arrangements covering the emergency supply.

This clause is primarily intended to allow the supply for firefighting purposes to the works of Yallourn Energy Limited.

#### **Metering Program (Clause 12)**

The Authority is required to measure and record all water taken from the System Waterway to demonstrate compliance with this entitlement. The Minister can require the Authority to upgrade the metering equipment if, in the Minister's opinion, it is no longer reliable, accurate or operationally appropriate.

The Storage Operator will undertake those metering obligations associated with



the storages and river gauging stations and recover the costs of this on a pro-rata basis from all Authorities holding source entitlements.

#### **Water Resource Management Costs (Clause 14)**

The Authority must contribute to the Resource Manager's costs of executing the tasks listed in sub-clause 14.1. It is envisaged that these will be apportioned on a pro-rata basis to water usage within the Latrobe Basin although this could be varied in circumstances where this was not considered to be a fair and reasonable basis for sharing the costs.

It is expected that the Resource Manager and the Authority will agree on the basis for apportioning costs, before charges are made.

The costs do not include the cost of managing private diversions.

Resource Management costs and activities should be kept to a minimum.

#### **Storage Operator Costs (Clause 15)**

The Minister shall appoint a Storage Operator to operate, maintain and administer the Headworks System and to release water as instructed by the entitlement holders.

The entitlement holders will indemnify the System Operator for the costs the System Operator incurs in discharging its duties.

The Storage Operator's costs will be shared by the entitlement holders with the Authority's share as detailed in sub-clause 15.2.

The Storage Operator's costs include an allowance for the depreciation of works associated with the Headworks System. In the case of Blue Rock the principles applying will be same as those adopted by Government for water supply storages across Victoria. For Lake Narracan and Yallourn Weir the depreciation calculation will assume that the structures will not be replaced at the end of their life. Any decision at this time to refurbish or abandon the structure would be made in conjunction with those Authorities holding a share of storage capacity who would bear the full cost of the necessary works. Any decision to abandon the structure would require the bulk entitlement to be amended accordingly.

If those Authorities holding a share of storage capacity of Lake Narracan and Yallourn Weir require the structure to be maintained for an indefinite period it would be necessary to amend the Order to allow depreciation to be charged. This would be done through an application to the Minister by the Water Authority responsible for the structures with the support of another

Minister (Treasurer).

**Duty to Keep Accounts and Fix Proportions (Clause 16)**

This Order specifies a range of duties that third parties such as the Resource Manager and Storage Operator may choose to undertake. In the event these third parties chose not to undertake these duties, the Authority may withhold payments.

**Duty to make payment (clause 17)**

The Authority and Resource Manager or Storage Operator may agree on alternative arrangements from those set out in clause 17 for payments to be made.

**Data (Clause 18)**

This clause ensures that any data collected by the Authority in accordance with its metering programs and reporting, must be made available to other persons. An access fee enables the Authority to recover the costs of making the data available.

**Dispute Resolution (Clause 19)**

Disputes may be resolved by an independent expert.



## WATER ACT 1989

### Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996

#### Explanatory note to accompany Order

This note has been prepared to explain the basis and intent of this bulk entitlement granted in favour of Gippsland and Southern Rural Water Authority (G&SRWA), which is referred to in the entitlement and this note as "the Authority".

#### **General:**

This bulk entitlement is a source entitlement which specifies the Authority's share of inflows to allow water to be taken from the Latrobe River. The Authority holding this source entitlement has an obligation to provide for the supply to a series of irrigation licences as well as to ensure minimum flows are provided in the System Waterway. These licences were historically re-issued each year however, with the granting of this entitlement, will be re-issued as long term licences.

The Authority has an entitlement to store water in Blue Rock Dam but not Lake Narracan. The Authority, however, is entitled to a share of the unregulated inflow to Lake Narracan for diversion by Licence holders. The Authority has the sole responsibility to ensure that the storages are operated so that minimum passing flows are provided below Blue Rock Dam and at specific locations on the Latrobe River below Yallourn Weir. Lake Narracan is the reservoir created by the Yallourn Storage Dam.

Water harvested by Blue Rock Dam is shared by two electricity generation companies (Yallourn Energy Limited and Loy Yang Power Limited), the State Electricity Commission of Victoria (SECV), the Central Gippsland Water Authority (CGWA) and G&SRWA. There is also a share of the water harvested that has not been allocated to an Authority.

Separate bulk entitlements are also provided for Yallourn Energy Limited and CGWA to cover their entitlements from the Latrobe River system. The entitlements to Yallourn Energy Ltd stems from the disaggregation of the SECV when all water entitlements previously held by the SECV were transferred in their entirety to Yallourn Energy Ltd. This transfer was subject to an agreement to allow the other power companies to use this entitlement until alternative arrangements could be made.

Upon the granting of a series of bulk entitlements to Yallourn Energy Limited covering the requirements of the individual power companies a transfer of entitlement is to occur from Yallourn Energy Ltd to G&SRWA. This transferred entitlement is to be dedicated to the supply of water to Mission Energy Management Australia Pty Ltd pursuant to a licence to be granted under the

*Water Act 1989* and the *Loy Yang B Act 1992*. The transferred entitlement and the entitlement covered by this note will then be aggregated and an amended bulk entitlement Order issued to the Authority.

This Order defines an Operator and a Resource Manager. The Operator will be responsible for the maintenance and physical operation of the headworks structures and will release water, where appropriate, to meet the requirements of the Authority holding an entitlement at that source. The Resource Manager has responsibility to ensure Authorities comply with their bulk entitlements and will keep the basin water accounts. G&SRWA will be initially appointed as both the Resource Manager and Storage Operator.

#### **Bulk Entitlement (Clause 6)**

The Authority is entitled to divert an average annual amount of up to 13 400 ML over any period of two consecutive years from the System Waterway. This figure represents the total annual diversions of all licences, specified under Schedule 1, who take their supply from the System Waterway. The regulated release from the Authority's share of Blue Rock Reservoir must not exceed an average annual total of 3 600 ML over any period of two consecutive years.

The purpose of the upper limit on Blue Rock releases is to protect environmental spill flow regimes from the storage.

The 13 400 ML and 3 600 ML limits were determined from Run Number 0307 of February 1996 of the Latrobe System Simulation Model (LSSM). Specific details of the this model are documented in - "Latrobe System Simulation Model, Run 0307 Specification" by the Department of Conservation and Natural Resources - Water Bureau.

#### **Transfer of Entitlement (Clause 8)**

The Authority may apply to the Minister temporarily or permanently to transfer, all or part of, its annual entitlement.

Any transfer of entitlement by the Authority will only be permitted where primary entitlements for individual licences are transferred or where licences are not re-issued. The Minister may take account of losses within the waterway when amending the annual entitlement.

#### **Share of Capacity (Clause 9)**

The Authority is entitled to a 2.0% share of the storage capacity of Blue Rock Reservoir.

The Authority is not entitled to any share of the storage capacity of Lake

Narracan.

For the purpose of water accounting the Authority will be allocated 2.0% of the water stored in Blue Rock Reservoir on the date that this Order comes into operation.

#### **Share of Flow (Clause 10)**

The Authority is entitled to 2.0% of the inflow into Blue Rock Reservoir and 25.15% of the unregulated inflow into Lake Narracan after the minimum passing flows have been provided. The unregulated inflow to Lake Narracan is jointly shared between the electricity generation companies and the SECV.

The size of the share of inflow to Blue Rock Reservoir was determined from the Latrobe System Simulation Model, Run 0307 so that the security of supply to the licences referred to in Schedule 1 could be maintained at the level which existed prior to the adoption of the minimum passing flow conditions as set out under clause 11.

The size of the share of unregulated inflow to Lake Narracan was established on a pro-rata basis between the Authority's bulk entitlement and the share of unregulated flow which would have been available to the SECV prior to the construction of Blue Rock Dam. The original Authority share of unregulated flow was established as the proportion of the annual Authority usage at that time to the total consumptive commitments from the Latrobe River (calculated as the total SECV usage plus the authorised Licence Volume).

#### **Passing Flow (Clause 11)**

The Authority must direct the Storage Operator to provide -

- (a) minimum passing flows in the Tanjil River below Blue Rock Dam measured at the Tanjil South gauging station; and
- (b) minimum passing flows in the Latrobe River below Yallourn Weir measured at the Thoms Bridge gauging station; and
- (c) to its best endeavours in the period until 1 July 1999, after which time it must provide, a minimum passing flow below Yallourn Weir to maintain flows in the Latrobe River -
  - (i) measured at the Rosedale gauging station; and
  - (ii) estimated at the Swing Bridge (Sale) gauging station.

The minimum passing flows have been expressed as the lesser of the nominated

flow (as set out in the Order) or the natural (or modified natural in the case of Thoms Bridge) whichever is the lesser.

The Authority must use its best endeavours in the period until 1 July 1999, after which time it must provide, a minimum passing flow at the Rosedale and Swing Bridge (Sale) gauging stations. The purpose of this sub-clause is to allow a period of time to overcome any operating difficulties and establish appropriate procedures. For the purpose of calculating the natural flow at the Rosedale and Swing Bridge gauging stations, the Storage Operator will use the modified natural flow and adjust this, as appropriate, to take account of the tributary streams which flow into the Latrobe River between the Thoms Bridge gauging station and the specified downstream gauging stations.

The passing flow requirement at the Swing Bridge (Sale) gauging station is specified as an estimate because an accurate rating table (chart relating river heights to streamflow) is not readily available. In this case the Authority will propose a basis for estimating streamflow at this location.

The specified passing flows at the gauging stations on the Latrobe River are designated as minimum average weekly flows. The minimum flow at each location is allowed to be 50 ML/d lower on any day than the minimum average weekly flow. This is to provide the Authority with a degree of operational flexibility however it must comply with the weekly average.

The Authority, after consultation with other entitlement holders from the System Waterway, may propose to the Minister a variation to the minimum passing flows to either -

- (a) reinstate the flow regime existing at the commencement of this Order; or
- (b) increase operational flexibility in meeting the minimum average passing flow requirements.

The provision referred in (a) is intended to cover -

- (i) any circumstance where the electricity generation companies modify their operating practices, by substituting groundwater for surface water usage without reducing extractions, and therefore adversely affecting the return flows to the Latrobe River and potentially the security of supply to licences; or
- (ii) any adverse impacts experienced by the Authority as the result of the river losses being greater than those assumed in the Latrobe System Simulation Model, Run 0307.

The provision referred to in (b) is intended to cover any adverse impacts

experienced by the Authority as the result of the necessary operational practices employed by the Storage Operator to meet the minimum passing flow requirements for the Latrobe River.

In case (a) above, the Minister would not approve any proposal to amend the minimum flow if it had an adverse effect on the security of supply to any other Authority holding a bulk entitlement.

#### **Releases (Clause 12)**

The capacity of the outlet works of Blue Rock Reservoir is to be shared in proportion to inflow shares between the reservoir entitlement holders.

The Authority may propose to the Minister an alternate means to ensure a fair and reasonable means of sharing the capacity of the outlet works of the reservoir. The intention of this clause was to cover situations where -

- SECV does not require release capacity in the short term;
- one or more shares of storage capacity are drawn below their share of dead storage jeopardising access by other shareholders to their share of live storage;
- trading of storage capacity results in different proportions of storage capacity to inflow shares;
- differential drawdown between shareholders affects the shares of release capacity.

#### **Supply of Water (Clause 13)**

The Authority must propose to the Minister within three months of the date of this Order -

- (a) the water accounting and operating arrangements which govern the Authority's share of water to supply licence holders from the System Waterway; and
- (b) details of the allocation procedures and rationing arrangements to ensure the Authority's usage through diversions by licence holders is in accordance with clause 6 and Schedule 2.

This clause requires the Authority to develop the operating arrangements necessary to allow the Storage Operator to account usage under the water sharing provisions and to regulate flows in the System Waterway. The costs of this function are recovered through the river regulation component of the



### Storage Operator Costs.

The clause also requires the Authority to propose the allocation procedures to ensure usage under licences is managed within the Authority's entitlement.

Together the arrangements referred to in (a) and (b) will constitute a Water Resources Management Plan for the purpose of Division 3 in Part 4 of the *Water Act 1989*.

### Environmental Obligations (Clause 14)

The Authority must propose a program to manage the specific environmental effects, operating rules and practices associated with taking water under the Order.

### Water Resource Management Costs (Clause 17)

The Authority must contribute to the Resource Manager's costs of executing the tasks listed in sub-clause 17.1. It is envisaged that these will be apportioned on a pro-rata basis to water usage within the Latrobe Basin although this could be varied in circumstances where this was not considered to be a fair and reasonable basis for sharing the costs.

It is expected that the Resource Manager and the Authority will agree on the basis for apportioning costs, before charges are made.

The costs do not include the cost of managing private diversions.

Resource Management costs and activities should be kept to a minimum.

### Storage Operator Costs (Clause 18)

The Minister shall appoint a Storage Operator to operate, maintain and administer the Headworks System and to release water as instructed by the entitlement holders.

The entitlement holders will indemnify the System Operator for the costs the System Operator incurs in discharging its duties.

The Storage Operator's costs will be shared by the entitlement holders with the Authority's share as detailed in sub-clause 18.2. The river regulation costs variable, referred to in the formula, is discussed under clause 13 in this note.

### Duty to Keep Accounts and Fix Proportions (Clause 16)

This Order specifies a range of duties that third parties such as the Resource

Manager and Storage Operator may choose to undertake. In the event these third parties chose not to undertake these duties, the Authority may withhold payments.

#### **Duty to make payment (clause 17)**

The Authority and Resource Manager or Storage Operator may agree on alternative arrangements from those set out in clause 17 for payments to be made.

#### **Data (Clause 18)**

This clause ensures that any data collected by the Authority in accordance with its metering programs and reporting, must be made available to other persons. An access fee enables the Authority to recover the costs of making the data available to parties not referred to in the Order.

#### **Dispute Resolution (Clause 19)**

Disputes may be resolved by an independent expert.

## **WATER ACT 1989**

### **Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996**

I, Charles Geoffrey Coleman, Minister administering the **Water Act 1989**, make the following Order:-

#### **1. CITATION**

This Order may be cited as the Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1996.

#### **2. EMPOWERING PROVISIONS**

This Order is made under sections 43 and 47 of the **Water Act 1989**.

#### **3. COMMENCEMENT**

This Order comes into operation on the day on which it is published in the Government Gazette.

#### **4. DEFINITIONS**

In this Order -

"Act" means the **Water Act 1989**;

"AHD" means the Australian Height Datum

"Authority" means the Gippsland and Southern Rural Water Authority;

"capacity share" means a water entitlement which is expressed as a percentage share of all or any of the following depending on the context in which the expression is used -

- (a) storage capacity; and
- (b) inflows to the storage; and
- (c) storage and transmission losses; and
- (d) storage release capacity; and
- (e) unregulated flow; and
- (f) water carrier capacity;

"**entitlement holder**" means a person holding a bulk entitlement under the Act;

"**exchange rate**" means the rate, determined by the Minister, at which the security of supply varies inversely to the annual entitlement;

"**Headworks Storages**" means the water supply works of Blue Rock Dam, Lake Narracan and Yallourn Weir;

"**Headworks System**" means -

- (a) Headworks Storages; and
- (b) the System Waterway;

"**Internal Spill**" means the redistribution of inflow shares which occurs where an Authority's share of inflow is in excess of the volume required to fill its share of storage capacity;

"**Latrobe Basin Water Accounts**" means an annual report, required by the Minister, on compliance by entitlement holders and licensees, respectively, in the Latrobe Basin, with the terms of their bulk entitlements or licences;

"**Licence**" means any licence granted under Part 4 of the Act;

"**modified natural flow**" means the sum of the flows of the Tanjil River at Tanjil South (gauging station number 226216) and the unregulated flows above the respective specified passing flow point;

"**other Authority**" means an Authority other than the Authority or any other person holding a bulk entitlement granted under Division 1 of Part 4 of the Act;

"**passing flows**" means the flows referred to in clause 11;

"**primary entitlement**" means an entitlement or commitment referred to in clause 7;

"**regulated release**" means any release from Blue Rock Reservoir or Lake Narracan excluding releases made by the Storage Operator to -

- (a) provide passing flows; or
- (b) pass floodwaters; or

- (c) pass flows which cannot be stored; or
- (d) secure the safety of the Headworks Storages under emergency situations;

**"Resource Manager"** means any person appointed by the Minister to do all or any of the following -

- (a) prepare the Latrobe Basin Water Accounts; and
- (b) monitor whether entitlement holders in the Latrobe Basin comply with the conditions of their bulk entitlements; and
- (c) investigate and mediate disputes between entitlement holders in the Latrobe Basin; and
- (d) investigate and deal with significant unauthorised uses of water in the Latrobe Basin; and
- (e) supervise the qualification of any rights to water made by the Minister during periods of declared water shortage under section 13 of the Act.

**"river regulation costs"** means those costs attributed to the accounting and operating arrangements referred to in sub-clause 13.2

**"Rosedale Gauging Station"** means the stream gauging station, number 226228, located on the main stream of the Latrobe River at Rosedale;

**"security of supply"**<sup>1</sup> means the statistical probability of being able to supply a given volume of water in a year;

**"source costs"** means the total annual cost to -

- (a) operate, maintain and administer the Headworks System; and
- (b) make releases from the Headworks System (excluding the river regulation costs); and
- (c) meet the financial charges associated with any new or enhancement works undertaken on the Headworks Storages; and

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<sup>1</sup> See Explanatory Note on Schedule 2 accompanying the Order

- (d) make an appropriate allowance for depreciation of works associated with the Headworks System, except Lake Narracan and Yallourn Weir, using the deprival value approach, or such other depreciation methodology adopted by the Victorian Department of Treasury and Finance to apply to Authorities; and
- (e) manage the catchment for water supply purposes to protect the quality of water diverted to, and stored in, the Headworks System; and
- (f) manage the stream gauging stations necessary to operate the Headworks System; and
- (g) implement the program established under the Bulk Entitlement (Latrobe - Southern Rural) Conversion Order 1995, to manage the environmental effects of the Headworks System;

**"Storage Operator"** means any person appointed by the Minister to operate the Headworks System, to manage or measure the flow into the headworks system or System Waterway, to keep, and report on, the water accounts of the capacity shares, or to do all or any of them;

**"Swing Bridge (Sale) Gauging Station"** means the stream gauging station, number 226027, located on the Latrobe River;

**"System Waterway"** means the Tanjil River between Blue Rock Reservoir and the Latrobe River, and the Latrobe River downstream of its confluence with the Tanjil River, including the pools formed by, and immediately upstream of, the Blue Rock and Narracan Dams and Yallourn Weir;

**"Thoms Bridge Gauging Station"** means the stream gauging station, number 226005, located on the Latrobe River;

**"unregulated flow"** means any flows in the System Waterway which cannot be attributed to a regulated release or a discharge from the works of an industrial company or other Authority;

**"year"** means the 12 months next following 1 July.

## 5. CONVERSION TO BULK ENTITLEMENTS

All of the Authority's entitlement to water from the System Waterway is

converted to a bulk entitlement on the conditions set out in this Order.

## **6. BULK ENTITLEMENT**

- 6.1 The Authority may take the share of flow from the System Waterway to meet its requirements and to supply primary entitlements up to an average annual total of 13 400 ML over any period of two consecutive years.
- 6.2 Regulated releases from the Authority's share of Blue-Rock Reservoir must not exceed an average annual total of 3 600 ML over any period of two consecutive years.

## **7. OBLIGATIONS TO SUPPLY PRIMARY ENTITLEMENTS**

Water taken from the System Waterway under this bulk entitlement must be used to supply the licences, described in Schedule 1, in accordance with the allocation procedures and restriction policies referred to in sub-clause 13.4(b) and Schedule 2.

## **8. TRANSFER OF ENTITLEMENT/ ADJUSTMENT OF SCHEDULES**

- 8.1<sup>2</sup> Subject to section 46 of the Act and clause 8.2, this bulk entitlement may be transferred -
- (a) temporarily or permanently;
  - (b) in whole or in part;
  - (c) for any purpose, including an in-stream use of water.
- 8.2 The Minister may, from time to time, alter Schedule 1 to reflect -
- (a) any trading between a person holding a licence and another bulk entitlement;
  - (b) any new licence allocated under section 51, 52 or 57 of the Act;
  - (c) any trading between persons holding licences;
  - (d) alterations to the security of any licence included under Schedule 2 in accordance with exchange rates determined by the Minister;

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<sup>2</sup> See Explanatory Note accompanying the Order

## 9. SHARE OF CAPACITY

The Authority is entitled to -

- (a) a 2.0% share of the total storage capacity of Blue Rock Reservoir, where the total storage capacity is 208 200 ML at a full supply level of 140.00 metres AHD; and
- (b) a 0% share of the total storage capacity of Lake Narracan, where the total storage capacity is 8000 ML at a full supply level of 47.7 metres AHD.
- (c) all water stored in its share of the storages specified in this sub-clause less a share of losses. Losses are to be assessed as specified in Schedule 3.

## 10. SHARE OF FLOW

10.1 The Authority may -

- (a) after the passing flows requirements have been met, store 2.0% of all the inflow into Blue Rock Reservoir from the catchment up to that amount required to fill its share of storage capacity;
- (b) store a greater proportion of the inflow where part of that inflow is assessed by the Storage Operator, as specified in Schedule 3, as an internal spill;

10.2 The Authority, after allowing for the passing flows requirements at the Thoms Bridge, Rosedale and Swing Bridge Gauging Stations, specified in clause 11, may allow, subject to sub-clause 13.4, those licence holders referred to in Schedule 1 to take from the System Waterway -

- (a) a 25.15% share of the unregulated flow, as calculated by the Storage Operator, at the point immediately downstream of Lake Narracan; and
- (b) additional unregulated flow above its 25.15% share, at the point immediately downstream of Lake Narracan, subject to the additional flow in excess of the Authority's flow share -
  - (i) not being used by any other Authority holding an entitlement to that additional flow; and
  - (ii) being shared with other Authorities holding a share of unregulated flow at this point in proportion to each of the



Authorities' shares of unregulated flow.

- 10.3 The Authority must not store as part of its bulk entitlement in Blue Rock Reservoir any flow into the storage -
- (a) which is specified as the passing flow by the Storage Operator; or
  - (b) which is being transferred by the holder of any other bulk entitlement; or
  - (c) when the Authority's share of the storage is full.

**11. PASSING FLOW**

- 11.1 The Authority must direct the Storage Operator to provide -

- (a) a minimum passing flow in the Tanjil River immediately below the Blue Rock Dam to maintain the flow at the Tanjil South gauging station as specified in Schedule 4, or the natural flow at this location, whichever is the lesser; and
- (b) a minimum passing flow below Yallourn Weir to maintain flows in the Latrobe River of a minimum average weekly flow of 350 ML/d over any seven day period, at a daily rate of no less than 300 ML/d, at the Thoms Bridge gauging station, or the modified natural flow at this location, whichever is the lesser; and
- (c) to provide, to its best endeavours in the period until 1 July 1999, after which time it must provide, a minimum passing flow below Yallourn Weir to maintain flows in the Latrobe River of a minimum average weekly flow of -
  - (i) 500 ML/d over any seven day period, at a daily rate of no less than 450 ML/d, at the Rosedale gauging station, or the modified natural flow, whichever is the lesser; and
  - (ii) 750 ML/d over any seven day period, at a daily estimated rate of no less than 700 ML/d, at the Swing Bridge (Sale) gauging station, or the modified natural flow, whichever is the lesser.

- 11.2 The Authority must propose to the Minister within three months of the date of this Order a basis under which the flow referred to in sub-clause 11.1(c)(ii) is to be estimated.

- 11.3 The Authority, after consultation with other entitlement holders from the

System Waterway and the Department of Conservation and Natural Resources, may propose to the Minister a variation to the minimum passing flows as set out in sub-clause 11.1 to either -

- (a) reinstate the flow regime in the System Waterway where this has been adversely affected by the -
  - (i) return flows from other Authorities to the System Waterway and its tributary streams being less than those assumed by the Minister at the commencement of this Order; or
  - (ii) provision for losses, assessed to be necessary by the Storage Operator, in the release of water from Blue Rock Reservoir or Lake Narracan, being greater than those assumed by the Minister at the commencement of this Order; or
- (b) increase operational flexibility in meeting the minimum average passing flow requirements.

11.4 The proposal referred to in sub-clause 11.3(a) must -

- (a) demonstrate that -
  - (i) with respect to paragraph 11.3(a)(i) -
    - (A) any monthly shortfalls, between the expected return flow contributions, based on recent records, and the assumed return flows, could not be provided from other compensating factors or from borrowing arrangements between the Storage Operator and any other Authority; and
    - (B) in the period after 1 July 1999, based on the actual records to that date, the return flow contributions are expected to be significantly different in the long term from the return flows assumed at the commencement date of the Order; and
  - (ii) with respect to paragraph 11.3(a)(ii), under operational experience over a period of not less than 1 year, the actual losses are significantly higher than those assumed at the commencement date of the Order; and
- (b) provide an assessment of the effect on the security of supply to other entitlement holders.

11.5 The proposal referred to in sub-clause 11.3(b) must demonstrate that, under operational experience over a period of not less than 1 year, the provision of the average passing flow requirements cannot be met without an unreasonable impact on the security of licence holders.

11.6 The Minister may -

- (a) approve or not approve a proposal made under sub-clauses 11.2 or 11.3; or
- (b) require the Authority to amend the proposal; and
- (c) require the Authority -
  - (i) to review all or part of any proposal approved by the Minister if, in the Minister's opinion, it is, at any time, no longer fair, reasonable or representative; and
  - (ii) to propose an amended proposal to the Minister.

11.7 The Authority must -

- (a) advise the Resource Manager in writing within 14 days of any proposal approved by the Minister under sub-clause 11.6; and
- (b) provide the Resource Manager with such other information concerning the proposed passing flows as the Resource Manager may, from time to time, require.

## 12. RELEASES

12.1 The Authority must direct the Storage Operator to release water to meet the passing flow requirements in the Tanjil and Latrobe Rivers.

12.2 Subject to sub-clause 12.3 the capacity of the outlet works of Blue Rock Reservoir is to be shared in proportion to inflow shares between the reservoir entitlement holders.

12.3 The Authority, after consultation with any other Authorities holding an inflow share to Blue Rock Reservoir, may, within twelve months of the date of this Order, and then from time to time, propose to the Minister an alternate means to ensure a fair and reasonable means of sharing the capacity of the outlet works of the reservoir.

12.4 The Minister must -

- (a) approve all or any means proposed under sub-clause 12.3 where there is agreement to the proposal by all other Authorities holding an inflow share; or
- (b) where all other Authorities cannot agree, refer the proposal to an independent expert established under sub-clause 22.2 for determination in accordance with clause 22.

### **13. SUPPLY OF WATER**

- 13.1 The Authority will direct the Storage Operator to maintain the water level within the pool formed by Yallourn Weir at a height -
- (a) no less than 40.35 m AHD, unless agreement is reached with any other Authority holding a bulk entitlement to take water from the pool, to vary this arrangement; and
  - (b) not exceeding 40.75 m AHD except in the event of extreme flood conditions.
- 13.2 The Authority and the Storage Operator must endeavour to agree on operational arrangements for the supply of water from the storages mentioned in clause 7.
- 13.3 If the Authority and the Storage Operator have not reached agreement under sub-clause 13.2 within twelve months of the date of this Order either party may give written notice to the other party requiring the matter to be determined in accordance with clause 22.
- 13.4 The Authority, after consultation with other Authorities where unregulated flow is shared, must propose to the Minister within three months of the date of this Order -
- (a) the water accounting and operating arrangements which govern the Authority's share of water to supply licence holders from the System Waterway; and
  - (b) the allocation procedures and restriction policies to ensure the Authority's usage through diversions by licence holders is in accordance with clause 6 and Schedule 2.
- 13.5 The proposal referred to in sub-clause 13.4(a) must include the procedures, to be undertaken by the Storage Operator, to translate the daily projected usage by licence holders from the System Waterway to an equivalent volume at the point below Lake Narracan where the unregulated flow is shared, to establish -

- (a) the Authority's use of its inflow share; and
- (b) the unused share of inflow that is available for use by other Authorities.

13.6 The Minister may -

- (a) approve a proposal made under sub-clause 13.4; or
- (b) require the Authority to amend the proposal; and
- (c) require the Authority -
  - (i) to review all or part of any proposal approved by the Minister if, in the Minister's opinion, it is, at any time, no longer fair, reasonable or representative; and
  - (ii) to propose an amended proposal to the Minister.

13.7 The Authority must -

- (a) advise the Resource Manager in writing within 14 days of any proposal approved by the Minister under sub-clause 13.4 and
- (b) provide the Resource Manager with such other information concerning the proposed diversion as the Resource Manager may, from time to time, require.

## 14. ENVIRONMENTAL OBLIGATIONS

14.1 The Authority must propose to the Minister, within 12 months of the date of this Order, a program to manage the environmental effects of the Authority's works to allow water to be taken from the System Waterway, including -

- (a) the effects on the bed and banks of the waterway in the vicinity of the Authority's works; and
- (b) operational practices to remove silt from works; and
- (c) operational practices to manage the water quality in works on the waterway; and
- (d) operational rules to control releases from works to the waterway; and

- (e) operational rules to manage flood flows through works on the waterway.

14.2 The Minister may -

- (a) approve the program proposed under sub-clause 14.1; or
- (b) require the Authority to amend the proposed program; and
- (c) require the Authority -
  - (i) to review the program approved by the Minister if, in the Minister's opinion, it is, at any time, no longer appropriate; and
  - (ii) to propose an amended program to the Minister.

14.3 The Authority must at its cost -

- (a) implement the approved program; and
- (b) keep a record of -
  - (i) all work undertaken under paragraph (a); and
  - (ii) separate accounts of all costs and payments for this work.

14.4 The Authority may recover the costs of implementing the approved program from the Storage Operator.

## 15. METERING PROGRAM

15.1 The Authority must propose to the Minister within 12 months of the date of this Order a metering program to demonstrate compliance with this bulk entitlement with respect to -

- (a) all water taken by the Authority under this bulk entitlement; and
- (b) the flow into each or any of the storages mentioned in clause 9; and
- (c) the passing flows.

15.2 The metering program prepared under sub-clause 15.1 must include details of any agreement between the Authority and any other person for measuring and calculating instream flows or water taken.

15.3 The Minister may -

- (a) approve the program proposed under sub-clause 15.1; or
- (b) require the Authority to amend the proposed program; and
- (c) require the Authority -
  - (i) to review the program approved by the Minister if, in the Minister's opinion, it is, at any time, no longer appropriate; and
  - (ii) to propose an amended program to the Minister.

15.4 The Authority must, at its cost -

- (a) implement the approved metering program; and
- (b) operate and maintain metering equipment and associated measurement structures in good condition and ensure that metering equipment is periodically re-calibrated, in accordance with any guidelines issued by the Minister; and
- (c) keep a record of all work undertaken under paragraph (b).

**16. REPORTING REQUIREMENTS**

16.1 The Authority may be required to report on all or any of the following matters, as provided in this clause:

- (a) the daily flow passing Blue Rock Reservoir, Lake Narracan and Yallourn Weir;
- (b) the daily flow passing the Tanjil South, Thoms Bridge and Rosedale gauging stations and the estimated daily flow passing the Swing Bridge (Sale) gauging station;
- (c) the estimated daily amount of water taken by Licence holders, listed under Schedule 1, from the System Waterway -
  - (i) upstream of Yallourn Weir; and
  - (ii) downstream of Yallourn Weir;
- (d) the daily flow into Blue Rock Reservoir and Lake Narracan;

- (e) the amount of water in Blue Rock Reservoir and Lake Narracan;
- (f) the amount of water in the Authority's share of Blue Rock Reservoir;
- (g) the annual amount of water taken by Licence holders, listed under Schedule 1, from the System Waterway -
  - (i) upstream of Yallourn Weir; and
  - (ii) downstream of Yallourn Weir;
- (h) the amount of annual losses debited to the Authority's share of Blue Rock Reservoir;
- (i) the annual amount of any internal spill of water from, or to, the Authority's share of storage in Blue Rock Reservoir;
- (j) any periods of rationing and the degree of rationing of Licence holders listed under Schedule 1;
- (k) the operational performance in meeting the specified passing flow requirements in the period to 1 July, 1999, and any actions taken to overcome failures to meet the passing flow targets;
- (l) the implementation of programs approved under sub-clauses 14.2 and 15.3;
- (m) any temporary or permanent transfer of all or part of this bulk entitlement;
- (n) any bulk entitlement or licence in respect of the System Waterway temporarily or permanently transferred to the Authority;
- (o) any amendment to this bulk entitlement;
- (p) the annual amount supplied to any group of Licence holders specified by the Minister;
- (q) any failure by the Authority to comply with any provision of this bulk entitlement;
- (r) any existing or anticipated difficulties experienced by the Authority in complying with this bulk entitlement and any remedial action taken or proposed by the Authority.



- 16.2 The Minister may require the Authority to report on all or any of the matters set out in sub-clause 16.1 -
- (a) in writing or in such electronic form as may be agreed between the Authority and the Minister; and
  - (b) within 14 days of receiving the Minister's written request or such longer period as the Minister may determine.
- 16.3 The Authority must, for the period of the preceding year, report in its Annual Report on each of the matters set out in sub-clause 16.1, except -
- (a) paragraphs 16.1(a), (b), (c) and (d) of sub-clause 16.1; and
  - (b) with the approval of the Minister, any particular failure referred to in paragraph (q) of sub-clause 16.1.
- 16.4 The Resource Manager may require the Authority to report from time to time, on all or any of the matters set out in paragraphs (a) to (r) of sub-clause 16.1.
- 16.5 Any report under sub-clause 16.4 must be made -
- (a) in such form as may be agreed between the Authority and the person to whom the report is made; and
  - (b) unless the Authority and that person agree otherwise -
    - (i) within 24 hours of the Authority receiving a request for a report on any matter set out in paragraph (a) to (e) of sub-clause 16.1; or
    - (ii) within 14 days of the Authority receiving a request for a report on any matter set out in paragraph (f) to (r) of sub-clause 16.1.

## 17. WATER RESOURCE MANAGEMENT COSTS

- 17.1 Subject to sub-clause 19.1, the Authority must pay the Resource Manager a proportion of the costs incurred by the Resource Manager to -
- (a) prepare the Latrobe Basin Water Accounts; and
  - (b) monitor whether entitlement holders in the Latrobe Basin comply with the conditions of their bulk entitlements; and

- (d) investigate and mediate disputes between entitlement holders in the Latrobe Basin; and
  - (e) investigate and deal with significant unauthorised uses of water in the Latrobe Basin; and
  - (f) supervise the qualification of any rights to water made by the Minister during periods of declared water shortage under section 13 of the Act.
- 17.2 The proportion of the costs referred to in sub-clause 17.1 will be as determined under sub-clause 19.3.

## 18. STORAGE OPERATOR COSTS

18.1 Subject to sub-clause 19.1 the Authority must pay the Storage Operator an annual source charge which will be determined according to sub-clause 18.2.

18.2 The Authority must pay the Storage Operator -

- (a) a percentage of the annual source charges for Lake Narracan and Yallourn Weir as follows -

$$C_s = \$ [ 0.2515 \times r \times (1 + m) ]$$

- (b) a percentage of the annual source charge for Blue Rock Reservoir as follows -

$$C_s = \$ 0.02 \times S \times (1 + m)$$

where -

$C_s$  = the annual source charge.

$S$  = the estimated source costs for the year for which charges are prepared.

$r$  = the river regulation costs for the year for which charges are prepared.

$m$  = the business margin set at 10% at the date of the Order. Any variation to this rate is to be mutually agreed as per sub-clause 20(a).

18.3 The charge referred to in sub-clause 18.2 must be paid by the Authority every year regardless of the amount of water diverted from the System

Waterway by Licence holders.

## **19. DUTY TO KEEP ACCOUNTS AND FIX PROPORTIONS**

19.1 The Authority is not obliged to make any payment to -

- (a) the Resource Manager under clause 17; or
- (b) the Storage Operator under clause 18 -

unless the person to whom the payment is payable chooses to comply with the provisions of this clause relevant to those payments.

19.2 Separate accounts of all costs and payments must be kept -

- (a) by the Resource Manager in respect to clause 17; and
- (b) the Storage Operator under clause 18.

19.3 The Resource Manager must, by 1 March in any year, provide an estimate, in respect of the ensuing year, of a fair and reasonable proportion of the costs referred to in sub-clause 17.1.

19.4 The Storage Operator must, by 1 March in any year, in conjunction with the Water Authority responsible for the Headworks Storages, provide the Authority with an estimate of the annual source charge referred to in sub-clause 18.2, for the ensuing year.

19.5 Accounts required to be kept under this clause must be made available for inspection by the Authority upon request.

## **20. DUTY TO MAKE PAYMENTS**

Any amount payable by the Authority under clause 17 and 18 -

- (a) is to be based on the actual expenditure for the period specified in paragraph (b) and include any adjustment from a previous period to reflect the actual cost of the work; and
- (b) unless the Authority and the person to whom the amount is payable agree otherwise -
  - (i) must be paid quarterly in arrears, within 28 days of the Authority receiving an invoice for amounts payable under clause 17; and

- (ii) must be paid monthly in arrears, within 28 days of the Authority receiving an invoice for amounts payable under clause 18.

## 21. DATA

- 21.1 The Minister will use the Minister's best endeavours to ensure that all hydrological and other data required by the Authority to comply with this bulk entitlement are made available to the Authority, free of charge.
- 21.2 The Authority must make available data collected for the purpose of the metering program and reporting under sub-clauses 15.1 and 16.1 to any person, subject to the person paying any fair and reasonable access fee imposed by the Authority, to cover the costs of making the data available.

## 22. DISPUTE RESOLUTION

- 22.1 If any difference or dispute arises between the Authority, the Minister and, with their consent, the Resource Manager, the Storage Operator and the Water Authority responsible for Headworks Storages (the "parties") concerning the interpretation or application of this Order, which is not resolved within 14 days of it arising, any party may give written notice to the others requiring the matter to be determined by an independent expert, if it is not otherwise resolved, within 14 days of that notice.
- 22.2 The independent expert will be either -
  - (a) a person agreed on by the parties to the difference or dispute; or
  - (b) if those parties cannot agree, a person nominated by the Minister
- 22.3 The independent expert must reach a conclusion on the matter within 30 days of it being referred, but has power to extend the period for reaching a conclusion on the matter by a further 30 days.
- 22.4 The independent expert must send a copy of the conclusion and its supporting reasons to each party to the difference or dispute.
- 22.5 (a) In any difference or dispute to which the Minister is a party, the independent expert must express the conclusion as a recommendation.
  - (b) the Minister must consider any recommendation made under paragraph 22.5(a) before deciding to give a direction under section 307 or to take any other action under the Act in relation to the difference or dispute.

- 22.6 In any difference or dispute to which the Minister is not a party, any conclusion by an independent expert is final and binding on the parties.
- 22.7 The apportionment of the costs of and incidental to every reference, including the costs of the independent expert, shall be at the discretion of the independent expert.

Signed:



Geoff Coleman, Minister administering the **Water Act 1989**

Dated:

*25-3-96*

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Note: An explanatory note that accompanies this Order is available from the Water Bureau, Department of Conservation and Natural Resources.

## **Schedule 1**

### **Licences Identified as Primary Entitlements**

The following entitlements, as established under Licence are to be supplied, or are to be available for supply subject to the supply arrangements approved under sub-clause 13.4:

1. 683 ML of licensed diversions issued to take and use water from the System Waterway upstream of Yallourn Weir.
2. 10456 ML of licensed diversions issued to take and use water from the System Waterway downstream of Yallourn Weir.

## Schedule 2

### Security of Primary Entitlements set out in Schedule 1

1. Except as set out in this clause, the Authority must supply the licence entitlements with 97% security.
2. The Minister may, by reference to an appropriate computer model, modify the level of security set out in clause 1, where the Minister is satisfied that either -
  - (a) hydrological conditions have changed since May 1995; or
  - (b) the estimate of security of supply, based on the water allocation and operating rules applying at the date of this Order has improved.
3. Where the Authority is unable to supply the full primary entitlements listed in Schedule 1, the Authority must allocate the available water pro-rata between primary entitlements.

### Schedule 3

#### Evaporation Losses and Internal Spills

##### 1. Evaporation Losses

Evaporation losses from -

- (a) Lake Narracan are calculated using the formula

$$e = A \times E \times 0.01 \times (s1/s)$$

- (b) the Blue Rock Reservoir are calculated using the formula

$$e = A \times E \times 0.01 \times (s1/s)$$

where

- e - evaporation loss in ML
- s - volume of water in either Lake Narracan or Blue Rock Reservoir as appropriate
- A - surface area in hectares corresponding to s
- E - pan evaporation in mm
- s1 - volume of water in the Authority's share of Lake Narracan or Blue Rock Reservoir as appropriate

##### 2. Internal Spills

The amount of internal spill cannot exceed a volume equal to the amount by which the other entitlement holder's storage is below its full share. Any internal spill is to be redistributed in proportion to the inflow shares of those Authorities whose shares of storage capacity are not full.

##### 3. Storage Accounts

The storage accounts maintained by the Storage Operator will be adjusted for -

- (i) the share of inflow apportioned to the Authority;
- (ii) any internal spill;
- (iii) any release directed by the Authority to meet its water supply requirements including any allowances for in-transit losses; and
- (iv) any allowance for the Authority's share of evaporation losses or seepage losses from storage.



**Schedule 4****Passing Flows for the Tanjil River at Tanjil South**

Month	Minimum Passing Flow ML/d
January	90
February	90
March	90
April	90
May	100
June	100
July	100
August	150
September	150
October	150
November	150
December	100