

MURRAYVILLE AREA

Groundwater Management Plan 2001



*Management of the Murray Group Limestone Aquifer in the
Murrayville Groundwater Supply Protection Area, Victoria*

Murrayville Groundwater Supply Protection Area Consultative Committee

**MURRAYVILLE GROUNDWATER SUPPLY PROTECTION AREA
MANAGEMENT PLAN 2001**

1. DEFINITIONS AND INTERPRETATION

In this Plan:

(a) "**Act**" means the *Water Act 1989*;

"**aquifer**" has the same meaning as in the Act, namely a geological structure or formation or an artificial landfill permeated or capable of being permeated permanently or intermittently with water.

"**bore**" has the same meaning as in the Act, namely any bore or well artificially constructed, used or to be used for the purpose of extraction of groundwater, groundwater observation, drainage and desalination of land, disposal of matter or recharge of the aquifer.

"**bore construction licence**" means a licence to construct a bore, granted under Division 2, Part 5 of the Act.

"**domestic and stock**" has the same meaning as in the Act in relation to water, namely use for household purposes; or watering of animals kept as pets; or watering of cattle or other stock; or irrigation of a kitchen garden, but does not include use for dairies, piggeries, feed lots, poultry or any other intensive or commercial use.

"**groundwater licence**" means a licence to take and use groundwater granted under Division 2, Part 4 of the Act.

"**Groundwater Management System**" means the computerised database of records about bores and groundwater, to which the Secretary and WMW both have access.

"**Minister**" means the Minister administering the Act.

"**Permissible Annual Volume**" means a volume set out in Schedule 5.

"**Protection Area**" means the Murrayville Groundwater Supply Protection Area.

"**Secretary**" means the Secretary to the Department of Natural Resources and Environment.

"**Upper Limit of Allocation**" means a volume set out in Schedule 5.

"**WMW**" means the Wimmera Mallee Rural Water Authority.

"**year**" means the 12 months beginning on 1 July.

"**Zone**" means a zone of the Protection Area specified in Schedule 1.

- (b) A reference to any legislation or legislative provision includes any statutory modification or re-enactment of, or legislative provisions substituted for, any subordinate legislation issued under, that legislation or legislative provision.
- (c) The singular includes the plural and vice versa.
- (d) A reference to a clause, sub-clause, paragraph or schedule is to a clause, sub-clause, paragraph or schedule of this Plan.
- (e) A reference to any document is to that document (and, where applicable, to any of its provisions) as amended, notated, supplemented or replaced from time to time.
- (f) A reference to a person or body in this Plan includes that persons or body's employees, officers, agents or contractors.
- (g) Where an expression is defined, another part of speech or grammatical form of that expression has a corresponding meaning.
- (h) Where any time period is required to be calculated from a specified date, that date must be excluded from the calculation.
- (i) Headings are for convenience only and do not affect interpretation.

2. **AUTHORISING PROVISION**

This Plan is made under section 30 of the Act.

3. **COMMENCEMENT**

This Plan commences on the day in which the Minister approves it.

4. **DECLARATION OF PROTECTION AREA**

The boundaries of the Protection Area:

- (a) were amended by the Minister by Order under section 28(1) of the Act on December 14, 2000; and
- (b) are set out in Schedule 1; and
- (c) may be inspected on a larger scale on Plan No. LEGL./00-27 at the office of Land and Survey Information Services, Department of Natural Resources and Environment, 436 Lonsdale Street, Melbourne, during business hours.

5. **AREA OF APPLICATION**

This Plan applies to the Tertiary Limestone Aquifer within the Protection Area, but not to the Tertiary Confined Sands Aquifer nor the Parilla Sands Aquifer.

6. **OBJECT OF PLAN**

As required by section 30(1) of the Act, the object of this Plan is to make sure that the groundwater resources of the Protection Area are managed in an equitable manner and so as to ensure the long-term sustainability of those resources.

7. **ADMINISTRATION AND ENFORCEMENT**

WMW has the duty of enforcing and administering this Plan.

8. **BORE MONITORING PROGRAM**

8.1 **Maintenance of monitoring bores**

- (a) The Secretary must, for each bore specified in Schedule 2:
 - (i) periodically inspect the condition of each bore; and
 - (ii) maintain each bore in good condition; and
 - (iii) keep a record of all inspections and work undertaken under paragraph (i) or paragraph (ii).
- (b) WMW must, for each bore specified in Schedule 3:
 - (iv) periodically inspect the condition of each bore; and
 - (v) maintain each bore in good condition; and
 - (vi) keep a record of all inspections and work undertaken under paragraph (i) or paragraph (ii).

8.2 **Water levels**

- (a) When this Plan commences WMW and the Secretary must implement a water level monitoring program.
- (b) The monitoring program requires:
 - (i) the Secretary to determine the potentiometric level in each bore in Schedule 2 during July, October, January and April of every year; and
 - (ii) WMW to determine the potentiometric level in every bore in Table 1 Schedule 2 in every month of the year not mentioned in subclause 8.2(b)(i) ; and
 - (iii) WMW to determine the potentiometric level in each bore so designated in Table 1 Schedule 3 in every month of the year; and

- (iv) WMW to determine the potentiometric level in every bore in Table 2 Schedule 3 during July, October, January and April of every year; and
- (v) the Secretary and WMW, respectively, must record every potentiometric level in each bore on the Groundwater Management System within 30 days after the level is determined.

8.3 **Water quality**

- (a) When this Plan commences WMW and the Secretary must implement a water quality monitoring program.
- (b) The monitoring program requires:
 - (i) The Secretary to collect and analyse for salinity, a sample of water from each bore in Table 1 Schedule 4 in July, October, January and April of each year; and
 - (ii) WMW to collect and analyse for salinity, a sample of water from each bore in Table 2 Schedule 4 in September and March of each year; and
 - (iii) the Secretary and WMW, respectively, must record the results of each analysis on the Groundwater Management System within 30 days after the salinity is determined.

9. **BORE METERING PROGRAM**

9.1 **Installation and maintenance of bore meters**

- (a) When this Plan commences WMW must ensure a flow meter is fitted on every bore:
 - (i) currently operating in the Protection Area; and
 - (ii) constructed and operating after the commencement of this Plan:
 - for which a groundwater licence is granted under section 51 of the Act; or
 - which is associated with groundwater licence transferred under section 62 of the Act.
- (b) When this Plan commences WMW must:
 - (i) each time the meter is read inspect the condition of each meter; and
 - (ii) maintain each meter in good condition; and
 - (iii) recalibrate the meter; and
 - (iv) replace any damaged meter; and
 - (v) keep a record of all work done under paragraph (ii), (iii) and (iv).

9.2 **Meter readings**

- (a) When this Plan commences WMW must implement a bore meter reading program for each bore operating in the Protection Area.
- (b) The metering program requires WMW to:

- (i) read each meter to determine the volume and rate of extraction in each bore at least in July and January of every year; and
- (ii) record for every bore:
 - the volume and rate of extraction in each bore; and
 - the Groundwater Management System identification number; and
 - the groundwater licence number; and
 - the date on which the meter is read; and
 - the hours of usage of the pump engine; and
 - any relevant information about the accuracy of the meter.
- (c) WMW shall estimate the volume and rate of extraction for any bore where the meter has failed.

9.3 Other groundwater accounting procedures

- (a) WMW must record annually from every irrigation bore in the Protection Area:
 - (i) the total area of land irrigated with groundwater; and
 - (ii) the type of crop irrigated with groundwater.

10. RESTRICTIONS AND PROHIBITIONS ON ISSUING GROUNDWATER LICENCES

- (a) WMW must not grant a groundwater licence for any volume of groundwater which would cause:
 - (i) the Upper Limit of Allocation for any Zone to be exceeded; or
 - (ii) the Permissible Annual Volume of the whole of the Protection Area to be exceeded.
- (b) The Upper Limits of Allocation and the Permissible Annual Volume referred to in 10 (a) are detailed in Schedule 5.

11. EXTENT TO WHICH A LICENCE MAY BE TRANSFERRED

- (a) WMW may approve the transfer of a groundwater licence entitlement:
 - (i) From a licensee to a person who proposes to extract groundwater within the Protection Area that is not from a licensee outside Zone 1 to a person who proposes to extract groundwater within Zone 1.
- (b) WMW must maintain a register and record the following information about any transfer of any groundwater licence:

- (i) the Groundwater Management System identification number of the bore of the transferor and transferee;
- (ii) the groundwater licence number;
- (iii) the date upon which the transfer was approved;
- (iv) the maximum volume of groundwater transferred.

12. **NOTIFICATION OF DOMESTIC AND STOCK USES**

The occupier of any bore from which groundwater is taken solely for domestic and stock purposes must within six months after this Plan commences and at five yearly intervals thereafter notify WMW of the taking of groundwater on a form provided by WMW for that purpose.

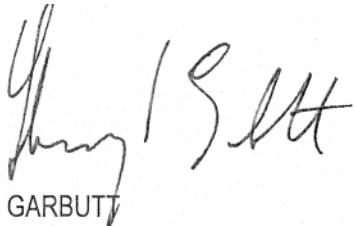
13. **LICENCE CONDITIONS**

As provided by section 30(2)(d) of the Act every groundwater licence issued in the Protection Area is subject to the following conditions:

- (a) In any year an additional 20% of the maximum annual volume may be taken and used provided that the total volume taken over three successive years does not exceed three times the maximum annual volume.

APPROVAL

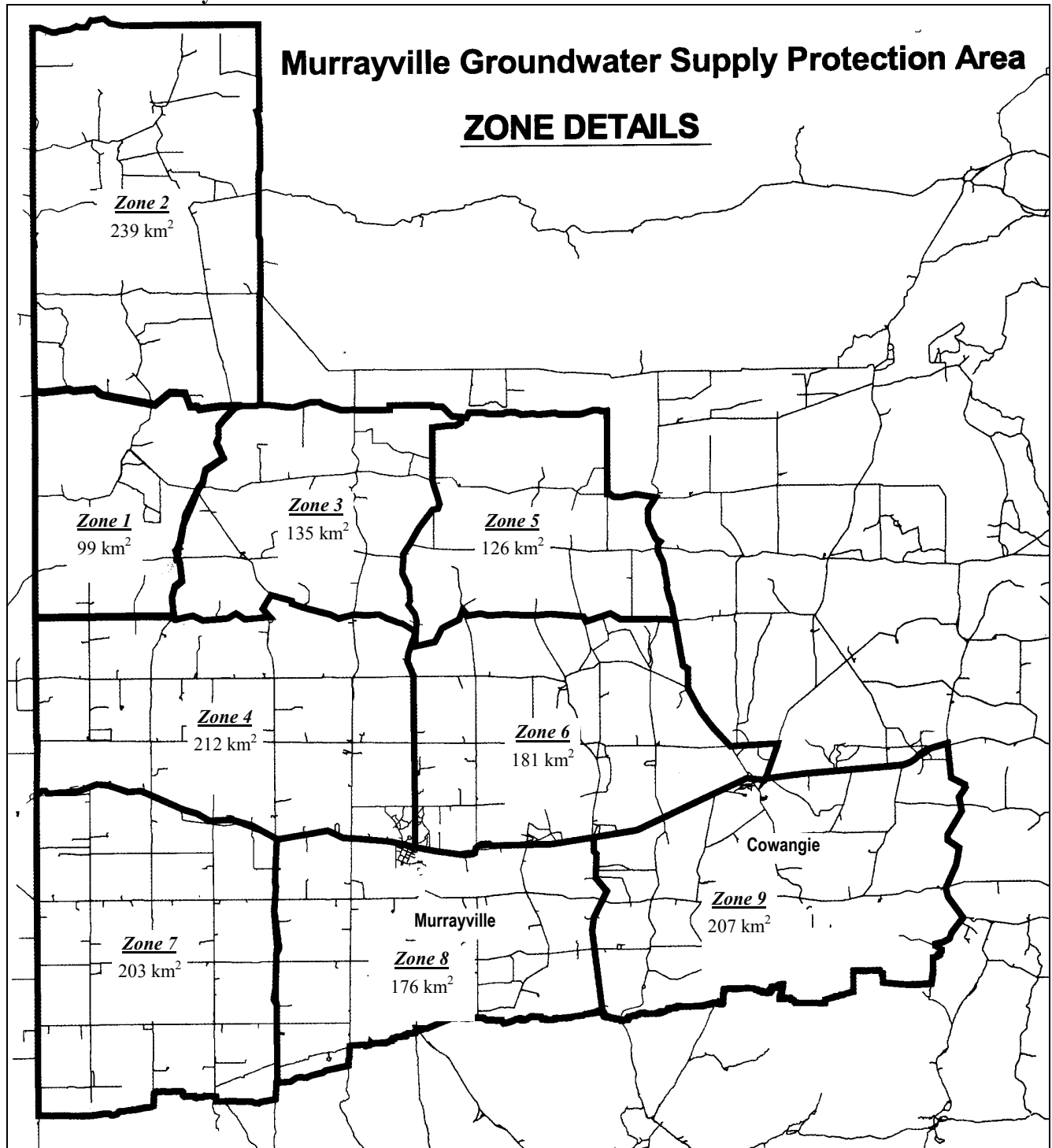
I, Sherryl Garbutt, Minister for Environment and Conservation, under section 30(4)(a) of the *Water Act* 1989 approve the Groundwater Management Plan set out above.



SHERRYL GARBUTT
Minister for Environment and Conservation

Date: 17/7/2001

Schedule 1
Plan of the Murrayville GSPA



Schedule 2
Water Level Monitoring Bore Network

Table 1

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Bore Elevation (m AHD at natural surface)	Column D Interval monitored (m AHD to top of casing) From - To	Column E Geologic formation monitored
	Easting	Northing			
143069	498740	6112135			Parilla Sands
137197	506155	6106762			Parilla Sands
65758	514350	6116150			Limestone
65743	511797	6117132	71.89	72.13	Limestone
137191	511690	6117310	71.54	71.74	Parilla Sands
137198	513537	6098106	69.19	69.78	Limestone
137199	513534	6098104	69.23	69.81	Parilla Sands
137195	501445	6127905	55.28	55.89	Limestone
137196	501445	6127901	55.27	55.84	Parilla Sands
137200	513372	6089045	75.51	76.14	Limestone
137201	513368	6089045	75.50	76.13	Parilla Sands
137194	503020	6121114	51.99	52.55	Limestone
134949	506690	6118250	69.01	69.63	Limestone
137190	506685	6118250	69.11	69.63	Parilla Sands

Table 2

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Bore Elevation (m AHD at natural surface)	Column D Interval monitored (m AHD to top of casing) From - To	Column E Geologic formation monitored
	Easting	Northing			
61571	519442	6110062			Limestone
61572	522264	6113021			Limestone
61573	526400	6107050			Limestone
143070	532830	6100170			Limestone
49677	502800	6135800			Limestone
49676	502750	6135800			Renmark
49678	503794	6139795			Limestone

Schedule 3 Water Level Monitoring Bore Network

Table 1

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Bore Elevation (m AHD at natural surface)	Column D Interval monitored (m AHD to top of casing) From - To	Column E Geologic formation monitored
	Easting	Northing			
130694	498120	6117074	79.60	80.00	Limestone
130695	498745	6112135	70.76	70.96	Limestone
130696	499851	6102912	93.35	93.65	Limestone
134950	497642	6109208	81.31	81.61	Limestone
82220	506150	6106760	62.79	63.13	Limestone
65743	511797	6117132	71.89	72.13	Limestone
134951	497590	6121010	62.79	63.13	Limestone
138359	499845	6110622	106.50	106.75	Limestone

Table 2

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Bore Elevation (m AHD at natural surface)	Column D Interval monitored (m AHD to top of casing) From - To	Column E Geologic formation monitored
	Easting	Northing			
77201	502729	6118765			Limestone
138350	503500	6110600			Limestone
82242	501418	6105140			Limestone
138361	504400	6105300			Limestone
85806	506200	6087600	106.50	106.75	Renmark

Schedule 4

Water Quality Monitoring Bore Network

Table 1

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Geological Formation Monitored
	Easting	Northing	
54642	503728	6100298	Limestone
54636	499800	6095350	Limestone
65745	514606	6116484	Limestone
77199	503142	6120819	Limestone
49679	504030	6130645	Limestone
49677	502800	6135800	Limestone

Table 2

Column A State Groundwater Management System Bore Identification Number	Column B Bore Location (AMG Coordinates)		Column C Geological Formation Monitored
	Easting	Northing	
61585	516800	6113200	Limestone
141209	519400	6117100	Limestone
141210	523800	6116500	Limestone
141211	520700	6106900	Limestone
Walpeup (36) – 61578	528587	6112244	Limestone
Walpeup (68) – 97184	544351	6102238	Limestone
Walpeup (65) – 97181	541724	6097934	Limestone
Walpeup (83) – 105355	545469	6095474	Limestone

Schedule 5

Permissible Annual Volumes & Upper Limit of Allocation

(Refer to Schedule 1 for Zone boundaries)

Column A Management Area	Column B PAV (ML/year)
Murrayville GSPA	10,883

Column A Management Zone	Column B Upper limit of allocation (ML/year)
Zone 1	1,840
Zone 2	2,390
Zone 3	1,350
Zone 4	2,120
Zone 5	1,260
Zone 6	1,810
Zone 7	2,030
Zone 8	1,760
Zone 9	2,070

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