



SOUTHERN RURAL WATER
WATER ACT 1989
Section 51 and 67

GROUNDWATER LICENCE No. 893889
(Licence to take and use groundwater from a bore and to operate works)

Gippsland and Southern Rural Water (the Authority) authorises:

Barwon Region Water Authority
PO Box 659
GEELONG VIC 3220

to take and use water from the bore or bores specified in the First Schedule and to operate works for that purpose and subject to the conditions in the Second Schedule.

The licence is valid until 30 June 2019.

Trevor McDevitt
Authorising Officer
Date: 7/11/2006

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PREAMBLE

Barwon Water's Greater Geelong water supply system conjunctively uses surface water from the Barwon and Moorabool catchments together with groundwater from the Gerangamete Groundwater Management Area. The most efficient use of the resources dictates that Barwon Water only extracts groundwater during dry periods when surfacewater supplies are falling. This principle has been incorporated into Barwon Water's REALM model to determine the periods when the Barwon Downs wellfield should be operated.

FIRST SCHEDULE

1. Type of use for which water is to be taken **Urban Supply**
2. Groundwater Management Area from which water is to be taken **Gerangamete**
3. Maximum daily rate at which water may be taken **72 ML/day**
4. Maximum volume of water that may be taken in any year (ending 30 June) **20,000 ML**
5. Maximum volume of water that may be taken in any period of 10 years (ending 30 June) **80,000 ML**
6. Maximum volume of water that may be taken in any period of 100 years (ending 30 June) **400,000 ML**
7. The taking of water is to be in accordance with the assumptions of the REALM modeling of Barwon Water's supply system undertaken for the renewal of this Licence. When Barwon Water applies for renewal of this licence, it must submit a report demonstrating how the Barwon Downs wellfield has been operated in accordance with the intent of the REALM model. **4,000 ML/year**
8. Quantities of water that may be taken from each bore:

Bore Number	Maximum daily rate at which water may be taken	Maximum volume of water that may be taken each day
64245	12.0 ML/day	12.0 ML
64246	12.0 ML/day	12.0 ML
64247	12.0 ML/day	12.0 ML
64248	12.0 ML/day	12.0 ML
S56301/01	12.0 ML/day	12.0 ML
S56301/02	12.0 ML/day	12.0 ML

*Additional bores may be added during the period of this licence,
subject to normal bore construction licensing requirements*

SECOND SCHEDULE

1. REGIONAL WATER LEVEL MONITORING

1.1 Water Level Monitoring

Barwon Water must for each bore listed in the Third Schedule:

- a. read the potentiometric level quarterly, provided the bore is in working order; and
- b. record the potentiometric level on a database within 30 days of measurement.

1.2 Maintenance

Barwon Water must for each bore listed in the Third Schedule:

- a. inspect the headworks at least once each year for signs of bore failure;
- b. examine the water levels recorded under sub-clause 1.1(a) to determine whether abnormal readings indicate bore failure; and
- c. keep a database of all inspections and examinations under sub-clauses 1.1(a) and 1.1(b).

1.3 Reporting

Barwon Water must provide to the Authority within 60 days of the end of each year a report containing:

- a. all water levels recorded under sub-clause 1.1(a) for the year;
- b. a plot of bore hydrographs containing all recorded water levels for each bore listed in the Third Schedule;
- c. a map of residual drawdown for the year;
- d. details of any bore failure determined from the inspection of headwork condition under sub-clause 1.2(a) or assessment of abnormal water level readings under sub-clause 1.2(b) during the year; and
- e. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any.

1.4 Monitoring Network

Barwon Water:

- a. may provide to the Authority a proposal, formulated after consultation with the Department of Sustainability and Environment and the Authority, to modify the list of bores in the Third Schedule in order to maintain the effectiveness and efficiency of regional water level monitoring; and
- b. must provide to the Authority a proposal, formulated after consultation with the Department of Sustainability and Environment and the Authority, to modify the list of bores in the Third Schedule in order to maintain the effectiveness and efficiency of regional water level monitoring within 90 days of:
 - i. Barwon Water concluding that there are significant gaps in the regional water level monitoring; or
 - ii. a material number of the bores listed in the Third Schedule are failing to provide valid data; or
 - iii. the Authority requesting a proposal following its receipt of a report under clause 1.3.

2. GROUNDWATER SALINITY

2.1 Salinity Monitoring

Barwon Water must by 31 December 2004, and then at the end of each year for the next 5 years, and then at the end of every fifth year:

- a. obtain a water sample from Bore YEO 23 (Bore ID 109114), Bore W7 (Bore ID 107720), and Bore YYG221 (Bore ID 102868);
 - b. determine the salinity of the sample; and
 - c. record the result of the salinity determination on a database within 30 days of undertaking the determination.
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2.2 Reporting

Barwon Water must provide to the Authority within 90 days of undertaking the sampling under sub-clause 2.1(a) a report containing:

- a. the salinity for each bore;
- b. a comparison of the salinity under sub-clause 2.1(a), with any previous salinity data from the same bore;
- c. an assessment of the risk of groundwater salinity increase due to pumping under this Licence, based on the information obtained in sub-clause 2.2(b);
- d. an assessment of the suitability of each bore specified in sub-clause 2.1(a) above for the purpose of ongoing salinity monitoring; and
- e. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any.

3. WATER LEVEL DECLINE

3.1 General

A. Barwon Water must by 31 December 2004 install a new monitoring bore at a site in the vicinity of bore YEO 40 (Bore ID 109131). This new bore is to be used for any purposes ascribed in this Licence to bore YEO 40 (Bore ID 109131)

B. Barwon Water must not cause groundwater levels in the bores listed below to decline below the respective levels listed, as expressed in metres relative to the Australian Height Datum (AHD):

- a. G 13 (Bore ID 64229) - 85.2m AHD;
- b. G 20 (Bore ID 64236) - 98.7m AHD;
- c. M 28 (Bore ID 83844) - 124.1m AHD; and
- d. YEO 40 (Bore ID 109131) - 142.6m AHD.

3.2 Monitoring

Barwon Water must:

- a. determine the potentiometric level from the bores listed in sub-clause 3.1:
 - i. monthly from the commencement of pumping until 18 months after the conclusion of pumping; and
 - ii. thereafter quarterly; and
- b. record the potentiometric levels obtained under sub-clause 3.2(a) on a database within 30 days of measurement.

3.3 Notification

If the potentiometric level of any bore in sub-clause 3.1 declines below the respective level specified in sub-clause 3.1, Barwon Water must:

- a. notify the Authority within 7 days of taking the measurement;
 - b. limit total groundwater extraction to a daily rate of up to 34.4 ML/d, determined by Barwon Water after considering the state of Geelong's water supply and water restrictions
 - c. initiate the following monitoring program:
 - i. immediately undertake subsidence level measurements as specified under sub-clause 5.2, and thereafter at 6 monthly intervals from the time of notification in sub-clause 3.3(a);
 - ii. increase the frequency of the monitoring as specified under sub-clause 1.1 to monthly; and
 - iii. within a period of 30 days of commencing the monitoring specified in sub-clause 3.3(c)(ii) and thereafter at monthly intervals provide to the Authority a report mapping depth to potentiometric surface and potentiometric surface relative to AHD;
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- d. provide to the Authority within 90 days of any notification provided in sub-clause 3.3(a) a report that includes:
 - i. a review of predicted groundwater level decline and recovery;
 - ii. an assessment of the water supply situation for Geelong; and
 - iii. a plan, formulated after consultation with the Department of Sustainability & Environment, to manage further pumping under this Licence and water supply to Geelong whilst the potentiometric level remains below the respective level specified in sub-clause 3.1; and
- e. except as provided for in sub-clause 3.3(f), only vary the actions required under sub-clauses 3.3(b) and 3.3(c) to the extent necessary to implement the plan specified in sub-clause 3.3(d)(iii); and
- f. only cease the actions required under sub-clauses 3.3(b) and 3.3(c) when the potentiometric level of all bores in sub-clause 3.1 are above the respective level specified in sub-clause 3.1.

3.4 Maintenance

Barwon Water must:

- a. maintain the bores referred to in sub-clause 3.1 in working order and replace or refurbish any bore as necessary;
- b. undertake an assessment of the remaining bore life of the bores referred to in sub-clause 3.1, at intervals not exceeding five years; and
- c. keep a database of all maintenance undertaken.

3.5 Reporting

Barwon Water must provide to the Authority:

- a. within 60 days of the end of each year a report containing:
 - i. the potentiometric levels determined under sub-clause 3.2(a) for the year;
 - ii. a summary of all work done under sub-clause 3.4(a);
 - iii. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any;
- b. within 90 days of undertaking each assessment under sub-clause 3.4(b) a report of the assessment including a bore maintenance and replacement plan.

4. METERING

4.1 General

Barwon Water must meter the extraction of groundwater from all bores listed in the First Schedule.

4.2 Metering

Barwon Water must:

- a. read the meters referred to in sub-clause 4.1 each week; and
- b. record the meter readings and the weekly metered extraction on a data base within 7 days of measurement.

4.3 Notification

Barwon Water must:

- a. notify the Authority within 7 days if any metered extraction has exceeded the extraction rates and volumes specified in the First Schedule; and
 - b. immediately reduce extraction to within the extraction rates and volumes specified in the First Schedule.
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4.4 Maintenance

Barwon Water must, with respect to the meters referred to in sub-clause 4.1:

- a. inspect their condition whenever they are read;
- b. maintain them in good condition;
- c. recalibrate them periodically and whenever there is reason to believe that a reading may be inaccurate;
- d. replace them if damaged; and
- e. keep a database of all work done under sub-clauses 4.4(b), 4.4(c) and 4.4(d).

4.5 Reporting

Barwon Water must provide to the Authority within 60 days of the end of each year a report containing:

- a. weekly groundwater extractions for the year pursuant to sub-clause 4.2, in both graphical and tabular formats;
- b. a summary of all work done under sub-clauses 4.4(b), 4.4(c) and 4.4(d); and
- c. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any.

5. SUBSIDENCE

5.1 General

Barwon Water must not extract groundwater to the extent that it causes subsidence to exceed 200mm, as measured at any measuring station in the subsidence monitoring network specified in the Fourth Schedule.

5.2 Monitoring

Barwon Water must:

- a. undertake annual subsidence level measurements in a manner consistent with its current methodology, unless more frequent levelling is required under 3.3(c)(i); and
- b. record the subsidence level measurements on a database within 30 days of measurement.

5.3 Notification

If the subsidence limit in sub-clause 5.1 is exceeded, Barwon Water must:

- a. notify the Authority within 7 days of taking the measurement;
- b. limit total groundwater extraction to a daily rate of up to 34.4 ML/d, determined by Barwon Water after considering the state of Geelong's water supply and water restrictions;
- c. initiate the following monitoring program:
 - i. immediately undertake subsidence level measurements as specified under sub-clause 5.2, and thereafter at 6 monthly intervals from the time of notification in sub-clause 5.3(a); and
 - ii. undertake within 30 days from the time of notification in sub-clause 5.3(a) a field assessment of potential impacts of subsidence, that will include but not be limited to the effects of subsidence on drainage, buildings, and infrastructure (roads, bridges, pipelines, dams);
- d. provide to the Authority within 90 days of any notification provided in sub-clause 5.3(a) a report that includes:
 - i. a report of the assessment undertaken under sub-clause 5.3(c)(ii);
 - ii. an assessment of the water supply situation for Geelong; and
 - iii. a plan, formulated after consultation with the Department of Sustainability & Environment, to manage further pumping under this Licence and water supply to Geelong; and

- e. except as provided for in sub-clause 5.3(f), only vary the actions required under sub-clauses 5.3(b) and 5.3(c) to the extent necessary to implement the plan specified in sub-clause 5.3(d)(iii); and
- f. only cease the actions required under sub-clauses 5.3(b) and 5.3(c) when the subsidence limit in sub-clause 5.1 is no longer exceeded.

5.4 Maintenance

Barwon Water must:

- a. maintain the subsidence monitoring network specified in the Fourth Schedule in working order;
- b. keep a database of all maintenance undertaken on the subsidence network; and
- c. notify the Authority within 7 days if the subsidence monitoring network is found to be defective.

5.5 Reporting

Barwon Water must provide to the Authority:

- a. within 60 days of the end of each year a report containing:
 - i. the measured subsidence under sub-clause 5.2 for the year;
 - ii. details of maintenance undertaken under sub-clause 5.5 during the year; and
 - iii. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any; and
- b. when it applies for the renewal of this Licence, a report by an appropriately-qualified geotechnical consultant that reviews the subsidence monitoring program and includes:
 - i. a comparison of actual and predicted subsidence;
 - ii. an assessment of the accuracy and reliability of the subsidence measurements undertaken; and
 - iii. recommendations regarding amendments to the program to improve the adequacy, reliability or accuracy of monitoring.

6. FLOW IN BOUNDARY CREEK

6.1 General

A. Barwon Water must by 31 December 2004 install a new monitoring bore at a site in the vicinity of bore YEO (Bore ID 109131). This new bore is to be used for any purposes ascribed in this licence to bore YEO 40 (Bore ID 109131).

B. Barwon Water must provide a flow of 2 ML/d to the headwaters of Boundary Creek from any time that groundwater extraction commences under this Licence until:

- a. the groundwater level in bore YEO 40 (Bore ID 109131) recovers above a level of 158.5m AHD following the cessation of pumping; or
- b. at any time between 1 June and 30 November the natural flow at the Yeodene stream gauge exceeds 1 ML/d.

B. Prior to extraction of groundwater under this Licence, Barwon Water must obtain relevant approvals regarding the discharge of water to Boundary Creek from the Environment Protection Authority.

6.2 Monitoring

Barwon Water must:

- a. install a meter at the point of discharge to Boundary Creek referred to in sub-clause 6.1;
 - b. read the meter each week; and
 - c. record the weekly flow on a database within 7 days of measurement.
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6.3 Maintenance

Barwon Water must, with respect to the meter referred to in sub-clause 6.2:

- a. inspect its condition whenever it is read;
- b. maintain it in good condition;
- c. recalibrate it whenever there is reason to believe that a reading may be inaccurate;
- d. replace it if damaged; and
- e. keep a database of all work done under sub-clauses 6.3(b), 6.3(c) and 6.3(d).

6.4 Reporting

Barwon Water must provide to the Authority within 60 days of the end of each year a report containing:

- a. weekly meter readings pursuant to sub-clause 6.2 (b), in both graphical and tabular formats;
- b. daily stream gauging data from the Yeodene gauge (233228), also graphed at weekly intervals;
- c. a summary of water discharged to Boundary Creek under sub-clause 6.1;
- d. a summary of all work done under sub-clauses 6.3(b), 6.3(c) and 6.3(d); and
- e. details of any issues arising from the monitoring results, including significant variations to predicted trends, and associated recommendations, if any.

7. PROTECTION OF RIPARIAN VEGETATION

7.1 General

A. Barwon Water must undertake a floral survey at the following sites within 5 years of the commencement of this Licence and thereafter at five-yearly intervals:

- a. Flora Site 25 on Boundary Creek (Grid Ref 341441, Mapsheet Gerangamete 7621-3-2);
- b. Site upstream of Site 25 (Grid Ref 330456, Mapsheet Gerangamete 7621-3-2);
- c. Control sites away from Boundary Creek:
 - c.1 (Grid Ref 267421, Mapsheet Barongarook 7621-3-3);
 - c.2 (Grid Ref 304377, Mapsheet Gerangamete 7621-3-2);
 - c.3 (Grid Ref 299360, Mapsheet Gerangamete 7621-3-2);
 - c.4 Survey Site No.22 (Grid Ref 303409, Mapsheet Gerangamete 7621-3-2); and
- d. Flood plain East Barwon River, EVC - Riparian Swamp Woodland:
 - d.1 (Grid Ref 392367, Mapsheet Gerangamete 7621-3-2);
 - d.2 (Grid Ref 390381, Mapsheet Gerangamete 7621-3-2).

B. Prior to engaging a consultant to undertake a floral survey, Barwon Water must:

- a. consult with the Department of Sustainability & Environment regarding suitable consultants; and
- b. then obtain the approval of the Authority for the consultant it proposes to use.

7.2 Reporting

Barwon Water must provide to the Authority:

- a. within 180 days of completing a floral survey under sub-clause 7.1, a report containing:
 - i. the results of the floral surveys; and
 - ii. a review of groundwater levels as determined from the bores listed in the Third Schedule that are adjacent to the flora sites; and
 - b. when it applies for the renewal of this Licence, a report assessing the degree of dependence of riparian vegetation at the sites specified in sub-clause 7.1 on the regional groundwater system, and that includes recommendations for any further work necessary to ensure their protection.
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8. PROTECTION OF DOMESTIC AND STOCK USE

Barwon Water must comply with the guidelines contained in the Fifth Schedule to ensure access is maintained for Domestic & Stock use in the area of outcrop of the aquifer from which groundwater is extracted under this Licence.

9. PROTECTION OF FLOW IN BARWON RIVER AND TRIBUTARIES

9.1 General

Barwon Water must:

- a. by 31 December 2004, install a monitoring bore at a site in the vicinity of Boundary Road, Gerangamete, to the east of the West Barwon River;
- b. by 31 December 2004 propose to the Authority an in-situ gauging program at the following sites: at the existing monitoring station (233253), at approximately 1 km downstream from the existing station, and at a site immediately upstream of the King Creek junction.
- c. prior to installing the monitoring required under sub-clauses 9.1(a) and 9.1(b), seek the Authority's approval of the proposed locations.

9.2 Monitoring Bore

Barwon Water must undertake water level monitoring, maintenance, and reporting for the bore referred to in sub-clause 9.1(a), in accordance with the requirements of clause 1.

9.3 Stream Flow Monitoring

Prior to undertaking the in-situ gauging program referred to in sub-clause 9.1(b) Barwon Water must propose to, and gain approval of the Authority, arrangements for the program, including frequency and location of stream flow measurement, and reporting.

9.4 Assessment

Barwon Water must provide to the Authority:

- a. by 30 June 2006, a report containing an assessment of the potential for groundwater to discharge to the West Barwon River based on the relative levels of river water and groundwater; and
- b. when it applies for the renewal of this Licence, a report containing an assessment of the loss of flow in the East Barwon River between the stream gauge referred to in sub-clause 9.1 and the aqueduct crossing on the East Barwon River east of Yaugher due to pumping under this Licence.

10. COMMUNITY ENGAGEMENT

10.1 Information

Barwon Water must:

- a. within 7 days of submitting to the Authority a report required under sub-clauses 1.3, 3.5(a), 4.5, 5.5(a) or 6.4 make it available to the public;
- b. make available to members of the public on request any information held in a database referred to in this Licence; and
- c. provide to the Authority, within 14 days of the Authority's request, any information held in a database referred to in this Licence.

10.2 Engagement

Barwon Water will continue to engage with the local community and stakeholders regarding their operation of the Licence.

11. OTHER

11.1 Definitions

In this Licence:

"Authority" means the Gippsland & Southern Rural Water Authority

"Barwon Water" means the Barwon Regional Water Authority

"domestic and stock use" has the same meaning as in Section 3 of the Water Act 1989

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

11.2 Good Practice

A. Barwon Water must implement the requirements of this Licence in accordance with contemporary industry standards, protocols and regulatory requirements.

B. Where this Licence requires Barwon Water to undertake an action on an annual, quarterly, weekly or other periodic basis, it must program and undertake the action so that as far as reasonably possible a regular and evenly-spaced pattern is achieved.

11.3 Pollution

Barwon Water must not pollute any groundwater through the spillage of fuel or lubricant or any other matter used in connection with works and appliances.

11.4 Charges

Barwon Water must pay the following charges under this Licence when requested by the Authority:

- a. the standard fee, if any, set by the Authority for a licence under S.51 of the Water Act to take and use groundwater;
- b. the standard fee, if any, set by the Authority for a licence under S.67 of the Water Act to operate works to take and use groundwater; and
- c. the reasonable costs incurred by the Authority in reviewing, assessing and responding to reports prepared and data provided by Barwon Water under this Licence.

11.5 Notice of Pumping

If required by the Authority, Barwon Water must give three days notice of its intention to take groundwater under this Licence.

THIRD SCHEDULE

BoreID	RunID	Zone AMG	Easting	Northing	Parish	Locality	Road Name	Nearest Cross Road	VicRoads Ref	BoreType
47771	BD3M	54	750880	5744900	BAMBRA	DEANS MARSH	Pennyroyal Valley Rd	Winchelsea-Deans Marsh Rd	92F8	non artesian
47773	BD3M	54	752700	5747000	BAMBRA	DEANS MARSH	Smiths Lane	Bambra Cemetery Rd	92G8	non artesian
47774	BD3M	54	753850	5749150	BAMBRA	BAMBRA	Winchelsea-Deans Marsh Rd	Fultons Lane	92G7	non artesian
47775	BD3M	54	750000	5749000	BAMBRA	DEANS MARSH	Salt Creek Lane	Rifle Butts Rd	92F7	non artesian
48001	BD3M	54	729350	5741750	BARONGAROOK	BARONGAROOK	Barongarook-Gerangamete Rd	Westwards Track	92C9	non artesian
48249	BD3M	54	740280	5737655	BARWON DOWNS	BARWON DOWNS	Woodlands Rd	Mahers Rd	92E9	non artesian
62578	BD3M	54	730605	5747505	ELLIMINYT	YEO	Yeo-Yeodene Rd	Old Yeo Rd	92C8	non artesian
64227	BD3M	54	731089	5737164	GERANGAMETE	GERANGAMETE	Pipeline Rd	Boundary Rd	92C9	non artesian
64228	BD3M	54	731155	5736982	GERANGAMETE	GERANGAMETE	Pipeline Rd	Boundary Rd	92C9	non artesian
64229	BD3M	54	737615	5740832	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Seven Bridges Rd	92D9	artesian
64230	BD3M	54	738700	5741367	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Dewings Rd	92D9	artesian
64233	BD3M	54	734250	5741550	GERANGAMETE	GERANGAMETE	Westwood Rd	Westwood Track	92C9	non artesian
64234	BD3M	54	738750	5741450	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Dewings Rd	92D9	artesian
64235	BD3M	54	732400	5739150	GERANGAMETE	GERANGAMETE	Meadowell Rd	Gold Hole Rd	92C9	non artesian
64236	BD3M	54	736300	5737800	GERANGAMETE	GERANGAMETE	Seven Bridges Rd	Dewings Bridge Rd	92D9	non artesian
64237	BD3M	54	733800	5738100	GERANGAMETE	GERANGAMETE	Seven Bridges Rd	Colac-Forrest Rd	92C9	artesian
64238	BD3M	54	733600	5742900	GERANGAMETE	GERANGAMETE	Westwood Rd	Thru Track	92C8	non artesian
64239	BD3M	54	732150	5742000	GERANGAMETE	GERANGAMETE	Thru Track	Westwoods Rd	92C9	non artesian
64240	BD3M	54	734200	5741500	GERANGAMETE	GERANGAMETE	Westwoods Rd	Westwoods Track	92C9	non artesian
64241	BD3M	54	736900	5736550	GERANGAMETE	FORREST	Track off Seven Bridges Rd (thru State Forest)	Seven Bridges Rd	92D9	non artesian
64242	BD3M	54	738850	5741375	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Dewings Rd	92D9	non artesian
64244	BD3M	54	731725	5739500	GERANGAMETE	GERANGAMETE	Link Rd	Gold Hole Rd	92C9	non artesian
64245	BD3M	54	738288	5737858	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Dewings Rd	92D9	artesian
64246	BD3M	54	738870	5741370	GERANGAMETE	GERANGAMETE	Dewings Rd	Dewings Bridge Rd	92D9	artesian
64247	BD3M	54	737557	5740323	GERANGAMETE	GERANGAMETE	Dewings Bridge Rd	Seven Bridges Rd	92D9	non artesian
64248	BD3M	54	738779	5742075	GERANGAMETE	GERANGAMETE	track off Dewings Bridge Rd	Dewings Rd	92D9	artesian
82838	BD3M	54	742052	5743756	MURROON	MURROON	Wire Lane	Colac-Forrest Rd	92E8	non artesian
82840	BD3M	54	742052	5743756	MURROON	MURROON	Wire Lane	Colac-Forrest Rd	92E8	non artesian

BoreID	RunID	Zone AMG	Easting	Northing	Parish	Locality	Road Name	Nearest Cross Road	VicRoads Ref	BoreType
82841	BD3M	54	742052	5743756	MURROON	MURROON	Wire Lane	Colac-Forrest Rd	92E8	non artesian
82842	BD3M	54	746450	5743200	MURROON	MURROON	Gannons Rd	Murroon Rd	92F8	non artesian
82843	BD3M	54	743660	5741770	MURROON	BARWON DOWNS	James Rd	Division Rd	92E9	artesian
82844	BD3M	54	742250	5747100	MURROON	MURROON	Colac-Murroon Rd	Birregurra-Forrest Rd	92E8	artesian
82845	BD3M	54	746060	5741270	MURROON	MURROON	Wickhams Rd	Division Rd	92F9	non artesian
82846	BD3M	54	748700	5743050	MURROON	PENNYROYAL	Pennyroyal-Wymbooliel Rd	Pennyroyal Station Rd	92F8	non artesian
82847	BD3M	54	743750	5739600	MURROON	BARWON DOWNS	Creamery Rd	McPaddens Rd	92E9	non artesian
102865	BD3M	54	746662	5749707	WHOOREL	WHOOREL	Whoorel Station Rd	Rifle Butts Rd	92F7	non artesian
102867	BD3M	54	749134	5746032	WHOOREL	WHOOREL	Birregurra-Deans Marsh Rd	Bushs Lane	92F8	artesian
102868	BD3M	54	745650	5751950	WHOOREL	BIRREGURRA	Birregurra-Deans Marsh Rd	Cape Otway Rd	92E7	artesian
102869	BD3M	54	746140	5746540	WHOOREL	BIRREGURRA	Deepdene Rd	Birregurra-Deans Marsh Rd	92F8	artesian
107716	BD3M	54	756450	5749850	YAN YAN GURT	BAMBRA	Brickmakers Rd	Bambra School Rd	92G7	non artesian
107717	BD3M	54	756450	5749850	YAN YAN GURT	BAMBRA	Brickmakers Rd	Bambra School Rd	92G7	non artesian
107720	BD3M	54	753950	5752000	YAN YAN GURT	BIRREGURRA	Fultons Lane	Winchelsea-Deans Marsh Rd	92G7	artesian
108915	BD3M	54	733610	5736050	YAUGHIER	GERANGAMETE	Boundary Rd	Colac-Forrest Rd	92C9	non artesian
109108	BD3M	54	734326	5744493	YEO	YEODENE	track off McCalls Rd	McCalls Rd	92C8	non artesian
109110	BD3M	54	734460	5745190	YEO	YEODENE	McCalls Rd	Bingami Rd	92C8	non artesian
109111	BD3M	54	734460	5745190	YEO	YEODENE	McCalls Rd	Bingami Rd	92C8	non artesian
109112	BD3M	54	736500	5743950	YEO	YEODENE	Colac-Forrest Rd	Boundary Hill Rd	92D8	artesian
109113	BD3M	54	735950	5744350	YEO	YEODENE	Possum Ridge Rd	Colac-Forrest Rd	92D8	non artesian
109114	BD3M	54	737100	5751000	YEO	WARNCOORT	Warncoort Cemetery Rd	Collyers Rd	92D7	non artesian
109128	BD3M	54	734240	5744300	YEO	YEODENE	Track on private property off McCalls Rd	Bingami Rd	92C8	non artesian
109129	BD3M	54	734310	5744310	YEO	YEODENE	Track on private property off McCalls Rd	Bingami Rd	92C8	non artesian
109130	BD3M	54	734090	5745190	YEO	YEODENE	McCalls Rd	Bingami Rd	92C8	non artesian
109131	BD3M	54	734370	5744490	YEO	YEODENE	Track on private property off McCalls Rd	Bingami Rd	92C8	non artesian
109133	BD3M	54	734650	5746950	YEO	YEODENE	Yeo-Yeodene Rd	McCalls Rd	92C8	non artesian
109134	BD3M	54	735650	5748600	YEO	YEODENE	Arundells Rd	Colac-Forrest Rd	92D8	non artesian
109135	BD3M	54	740300	5750900	YEO	BIRREGURRA	Dunlops Rd	Birregurra-Yeodene Rd	92E7	non artesian

FOURTH SCHEDULE

The subsidence monitoring network shall consist of four deep seated bench marks control clusters (high stability marks), and eleven monitoring stations given in Table 1. It shall be levelled using GPS (accuracy of approximately 10 mm).

Table 1

	Station ID	Easting	Northing
Control Clusters			
Yeo	20790040	730262	5745488
Forrest	39780106	734047	5731948
Dewings	20880024	742309	5736919
Bambra	20590052	752872	5741632
Monitoring Stations			
	32390045	740327	5738869
	32390046	742196	5743862
	26470027	734015	5737951
	26470032	737430	5741001
	26470033	738685	5740722
	36470036	735959	5743011
	39870025	745547	5751969
	39870026	733833	5745378
	38090024	749124	5753920
	38090025	745547	5751969
	38090026	746148	5746544