

Bulk Water Supply Agreement

Melbourne Water Corporation

South East Water Limited

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Ref: RWJ:955181

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BULK WATER SUPPLY AGREEMENT

DATE

PARTIES

Melbourne Water Corporation ("MW")

South East Water Limited ACN 066 902 547 ("SEWL")

RECITALS

- A. Under the *Melbourne & Metropolitan Board of Works Act 1958*, MW has power to conserve, treat and supply water for consumption within the metropolis.
- B. SEWL, as a water and sewerage licensee under the *Water Industry Act 1994*, has the function of providing, managing, operating and protecting water supply systems within the area of its Licence.
- C. MW has previously agreed to supply water to SEWL, under an agreement dated 30 December 1994.
- D. The parties wish to enter into a new agreement, in place of the former agreement, in the terms set out in this document.

OPERATIVE PROVISIONS

1. **INTERPRETATION**

1.1 **Definitions**

The following definitions apply in this agreement.

"**Billing Meter**" means a Billing Meter identified in a Table in Schedule 6.

"**Customer Report**" means the report referred to in paragraph 3(b).

"**Emergency Response Plan**" means an Emergency Response Plan referred to in paragraph 14.2(a).

"**Entry Point**" means a point identified as an Entry Point in the Site Codes set out in Schedule 2.

"**Flow Allocation Point**" means a Flow Allocation Point described in Schedule 1.

"**former agreement**" means the agreement referred to in Recital C.

"**Interface Point**" means a point specified as an Interface Point between MW and SEWL assets in the Water Supply Asset Interface Register held by the Office of the Regulator-General.

"**Licence**" means a water and sewerage licence granted under the *Water Industry Act 1994*, with respect to part of the metropolis as determined under section 3(1) of the *Melbourne & Metropolitan Board of Works Act 1958*.

"**Licensee**" means a person who holds a Licence.

"**Pressure Monitoring Point**" means a Pressure Monitoring Point described in Schedule 1.

"**Water Quality Monitoring Point**" means a point identified as a WQ Monitoring Point in the Site Codes set out in Schedule 2.

"**Water Quality Zone**" means a Water Quality Zone identified as a WQ Zone by number in Schedule 2.

"**Water Supply Superzone**" means a Water Supply Superzone described in Schedule 1.

"**Water Supply Service**" means an obligation imposed upon MW by clause 3.

1.2 Rules for interpreting this document

Headings are for convenience only, and do not affect interpretation. The following rules also apply in interpreting this document, except where the context makes it clear that a rule is not intended to apply.

- (a) A reference to:
 - (i) legislation (including subordinate legislation) is to that legislation as amended, re-enacted or replaced, and includes any subordinate legislation issued under it;
 - (ii) a document or agreement, or a provision of a document or agreement, is to that document, agreement or provision as amended, supplemented, replaced or novated;
 - (iii) a party to this document or to any other document or agreement includes a permitted substitute or a permitted assign of that party;
 - (iv) a person includes any type of entity or body of persons, whether or not it is incorporated or has a separate legal identity, and any executor, administrator or successor in law of the person; and
 - (v) anything (including a right, obligation or concept) includes each part of it.
- (b) A singular word includes the plural, and vice versa.
- (c) A word which suggests one gender includes the other genders.
- (d) If a word is defined, another part of speech has a corresponding meaning.
- (e) If an example is given of anything (including a right, obligation or concept), such as by saying it includes something else, the example does not limit the scope of that thing.
- (f) The word "**agreement**" includes an undertaking or other binding arrangement or understanding, whether or not in writing.
- (g) A party may give a notice or report under this agreement in written or electronic form.

2. TERM OF AGREEMENT

- 2.1 This agreement commences on the date of this agreement.
- 2.2 This agreement may be terminated in accordance with clause 33.
- 2.3 The parties agree to terminate the agreement referred to in Recital C in accordance with paragraph 23.8(a) of that agreement, on the date determined under sub-clause 2.1.

RIGHTS AND OBLIGATIONS OF MELBOURNE WATER

3. TO SUPPLY WATER

MW must:

- (a) in accordance with and subject to, this agreement, supply water to SEWL sufficient to meet SEWL's obligations to supply water suitable for human consumption under its Licence:
- (i) at the pressure and rate of flow determined under sub-clause 9.1; and
 - (ii) at the quality determined under sub-clause 10.1; and
 - (iii) from the sources determined under clause 11; and
 - (iv) with the security of supply determined under clause 12; and
- (b) give SEWL a Customer Report in each month, promptly after its Board meeting in that month, on MW's performance of its obligations under this agreement in the preceding month.

4. TO RECOVER CHARGES

MW may recover from SEWL any charges or interest due to MW under clauses 21-25.

RIGHTS AND OBLIGATIONS OF SEWL

5. TO RECEIVE WATER

SEWL may, in accordance with this agreement, receive water supplied by MW including for the purpose of supplying that water to customers pursuant to SEWL's Licence.

6. TO PAY CHARGES

SEWL must pay to MW charges and interest determined, calculated and invoiced in accordance with clauses 21 - 25.

JOINT OBLIGATIONS

7. TO CO-OPERATE AND LIAISE

7.1 General Obligation

Each party must co-operate and liaise fully with the other to ensure that this agreement is implemented effectively.

7.2 Examples of Obligation

For example, the parties must co-operate and liaise fully:

- (a) to agree upon and adopt any protocol referred to in sub-clause 8.2; and
- (b) to resolve any difficulties which may arise in implementing this agreement because of any legal or regulatory right or obligation of a party which may conflict with a provision of this agreement; and
- (c) to allow each party to comply with its statutory and contractual rights and obligations to other persons; and
- (d) to minimise any risks to persons, equipment or the environment which may arise in supplying water under this agreement; and
- (e) to review and to amend the Drought Response Plan in accordance with sub-clause 14.6; and
- (f) to undertake co-operative planning as required by clause 18; and
- (g) to adopt the Capital Works Program referred to in sub-clause 19.1; and
- (h) to review and, if necessary to amend, this agreement in accordance with clause 32.

7.3 Proposed Variations to Licence

- (a) If, in any year, SEWL becomes aware of any proposal to amend SEWL's Licence (including any provision of the Customer Contract referred to in section 19 of the *Water Industry Act 1994*), SEWL must consult MW about any proposed variation which SEWL considers will, or is likely to affect MW, before SEWL agrees with the variation under section 14(1)(b) of that Act.
- (b) If MW reasonably concludes that the proposed variation would:
 - (i) substantially and materially alter MW's rights and obligations under this agreement; or
 - (ii) create a substantial risk that MW will be unable to supply water under sub-clauses 9.1 or 10.1 which enables SEWL to comply with the Customer Contract,

SEWL must:

- (iii) advise the Office of the Regulator-General of MW's concerns; and
- (iv) include any written report by MW setting out its conclusions under paragraph (b) in any representation which SEWL is given an opportunity to make under section 14(2)(b) of that Act; and

- (v) take every other reasonable step in the circumstances to assist MW to resolve its concerns.

8. TO COMPLY WITH LAWS AND AGREED PROTOCOLS

- 8.1 Each party must comply with all laws relevant to the subject matter of this agreement.
- 8.2 The parties may, from time to time, through their Principal Representatives, agree upon and adopt a written protocol for the performance by either or both parties of any obligation under this agreement.
- 8.3 A protocol adopted under sub-clause 8.2:
 - (a) may be amended or terminated in writing signed by the parties; and
 - (b) takes effect as if it were part of this agreement; and
 - (c) may include, as a party, any other Licensee; and
 - (d) Must be included in this agreement as part of Schedule 8 - Protocols.
- 8.4 This agreement prevails over any protocol adopted under sub-clause 8.2 to the extent of any inconsistency between them.

IMPLEMENTATION

9. PERFORMANCE STANDARDS FOR PRESSURE AND FLOW

9.1 Supply Standards

At any time when SEWL uses water in a Water Supply Superzone in a way which does not exceed the flow allocation limits set out in Schedule 1 at a Flow Allocation Point for that Water Supply Superzone, MW must provide water to that Water Supply Superzone which maintains the pressure set out in Schedule 1 at each Pressure Monitoring Point for that Water Supply Superzone.

9.2 Determining Compliance

- (a) MW must install, maintain and operate each Pressure Monitoring Point.
- (b) MW may install, maintain and operate a measuring device at any Flow Allocation Point.
- (c) MW may, with the written consent of SEWL, install and have access to, a point referred to in paragraph (a) or (b) on assets belonging to SEWL, where the point will measure the pressure or flow of water supplied to SEWL or another Licensee.
- (d) MW must provide SEWL:
 - (i) with instantaneous access to data recorded by MW; and
 - (ii) access to all accumulated data concerning measurements taken,

at each Pressure Monitoring Point and Flow Allocation Point, through MW's SCADA system, to the extent that such data is available to MW.

- (e) SEWL may, with the written consent of MW and at SEWL's expense, install and have access to, measuring devices on assets belonging to MW.
- (f) SEWL must not unreasonably withhold permission for MW to have:
 - (i) instantaneous access to data recorded by SEWL's SCADA system; and
 - (ii) access to all accumulated data concerning measurements taken at SEWL's monitoring points,when MW requests such access.

9.3 Failure to meet performance standards

- (a) On each occasion when either MW or SEWL declares a failure by MW to comply with sub-clause 9.1 to be an "incident" within the meaning of an Emergency Response Plan MW must:
 - (i) take all action necessary to comply with sub-clause 9.1 as soon as possible; and
 - (ii) give SEWL notice in accordance with sub-paragraphs 14.3(a)(v) and (vi); and
 - (iii) otherwise comply with sub-clause 14.3 and MW's Emergency Response Plan.
- (b) On each occasion when a failure by MW to comply with sub-clause 9.1 is not declared to be an "incident" under paragraph (a), MW must:
 - (i) take all action necessary to comply with sub-clause 9.1 as soon as possible; and
 - (ii) set out the matters referred to in sub-paragraph 14.3(a)(vi) in the Customer Report for that month.

9.4 Power to revise standards

The parties may (through their Principal Representatives) from time to time, agree in writing to alter any requirement about pressure and flow set out in Schedule 1 and the Schedule must be taken to have been altered accordingly.

9.5 Power to meet temporary additional demand

- (a) SEWL may ask MW to exceed the requirements set out in sub-clause 9.1, in order to meet a temporary additional demand in any Water Supply Superzone.
- (b) MW must comply with any request made under paragraph (a) if MW is able to meet the request without causing any adverse effect to:

- (i) water supply services provided to another Licensee by MW; or
 - (ii) any part of MW's water supply system.
- (c) If meeting a request made under paragraph (a) would result in MW not being able to comply with the requirements of either sub-clause 9.1 or 10.1 with respect to any Water Supply Superzone or Water Quality Zone, MW must only meet the request to the extent that it will allow MW still to comply with sub-clause 9.1 and 10.1, unless SEWL agrees in writing to waive MW's obligation to comply with those sub-clauses.

10. PERFORMANCE STANDARDS FOR WATER QUALITY

10.1 Water Quality Standards

- (a) In accordance with, and subject to the terms of this agreement, MW must:
- (i) supply water at each Entry Point and Water Quality Monitoring Point described in Schedule 2, which complies with such parameters or standards for indicators of water quality as are specified for that Entry Point or Water Quality Monitoring Point in Parts B and C of Schedule 3; or
 - (ii) for water quality indicators not specified in Parts B and C of Schedule 3, supply water at each Entry Point and Water Quality Monitoring Point fit for human consumption.
- (b) Whenever MW supplies water which has been treated by a process of chlorination or chloramination at a primary disinfection plant:
- (i) MW must:
 - (A) within 7 days after the commencement of this agreement give SEWL a report setting out the dose of chlorine administered at each primary disinfection plant in milligrams per litre at the date on which the agreement commences; and
 - (B) not reduce any dose set out in the report during the term of this agreement without SEWL's prior written consent; and
 - (ii) MW must ensure that the process complies with the Chlorine Contact Time formula set out in Part A of Schedule 3; and
 - (iii) the presence of levels of total or free chlorine residual at a Water Quality Monitoring Point which cause customers to complain about the taste or odour of water supplied to customers by SEWL, will not constitute a breach of sub-clause 10.1, if SEWL has previously agreed in writing to those levels; and
 - (iv) MW may, at the request of SEWL and after consulting all affected parties, increase the dose of chlorine administered at a disinfection plant to take account of variations in water quality.

- (c) MW must adjust any invoice given to SEWL whenever chlorine is not added to water at a primary disinfection plant, in accordance with sub-clause 25.2.
- (d) MW must not mix water treated by a process of chloramination with water which has been treated either:
 - (i) by a chlorination process; or
 - (ii) with sodium hypochlorite.
- (e) Whenever MW supplies water which has been treated with fluoride, MW must comply with the *Health (Fluoridation) Act 1973* and any requirements of the Secretary to the Department of Human Services under that Act.

10.2 Determining Compliance

- (a) MW must undertake a water quality monitoring program of water supplied at each Water Quality Monitoring Point and Entry Point described in Schedule 2.
- (b) MW's water quality monitoring program for any year commencing on 1 July must:
 - (i) be developed in consultation with SEWL by 30 June in the preceding year; and
 - (ii) be given to the Secretary of the Department of Human Services by 30 September in every year; and
 - (iii) require at least weekly sampling and analysis of faecal and total coliforms; and
 - (iv) require sufficient sampling and analysis of turbidity, apparent colour, pH, iron, manganese and THMs to present a statistically significant representation of those parameters in water supplied to SEWL; and
 - (v) require MW to monitor the operation of each of MW's primary disinfection plants to ensure that MW complies with Part A of Schedule 3.
- (c) MW must provide SEWL:
 - (i) with instantaneous access to data recorded by MW; and
 - (ii) access to all accumulated data concerning samples and analyses undertaken,

at each Water Quality Monitoring Point and Entry Point through MW's SCADA System, to the extent that such data is available to MW, in relation to the following indicators of water quality:

Flow
Turbidity
pH
Chlorine residual.

- (d) SEWL must provide MW:
 - (i) with instantaneous access to data recorded by SEWL; and
 - (ii) access to all accumulated data concerning samples and analysis undertaken,

of water quality, to the extent that such data is available to SEWL.
- (e) MW must, as soon as practicable but within 9 days after the end of each month, give SEWL, in electronic form, preliminary:
 - (i) results of sampling and analysis at each Water Quality Monitoring Point and Entry Point; and
 - (ii) data concerning MW's performance of its disinfection obligations under paragraph 10.1(b).
- (f) MW must set out in each Customer Report, and in any other report which SEWL reasonably requests:
 - (i) the information referred to in sub-paragraph (e)(i) and (ii); and
 - (ii) the results of analysis at each Water Quality Monitoring Point in each of the preceding 12 months, for each of the water quality indicators referred to in Part B of Schedule 3.

10.3 Failure to meet performance standards

- (a) Without detracting from any other obligation under this agreement, on each occasion when either MW or SEWL declares a failure by MW to comply with sub-clause 10.1 to be an "incident" within the meaning of an Emergency Response Plan MW must:
 - (i) take all action necessary to comply with sub-clause 10.1 as soon as possible; and
 - (ii) give SEWL notice in accordance with sub-paragraphs 14.3(a)(v); and (vi); and
 - (iii) otherwise comply with sub-clause 14.3 and MW's Emergency Response Plan.
- (b) On each occasion when a failure by MW to comply with sub-clause 10.1 is not declared to be an "incident" under paragraph (a), MW must:
 - (i) take all action necessary to comply with sub-clause 10.1 as soon as possible; and
 - (ii) set out the matters referred to in sub-paragraph 14.3(a)(vi) in the Customer Report for that month.

10.4 Power to revise standards

The parties may (through their Principal Representatives) from time to time, agree in writing to alter any requirements about water quality set out in Schedule 2 or 3 and the Schedule must be taken to have been altered accordingly.

11. PERFORMANCE STANDARDS FOR SOURCES OF SUPPLY

- (a) Within 7 days after the date on which this agreement commences, MW must give SEWL notice of the storages from which MW supplied water to SEWL at the commencement date and of the typical chemical characteristics of water supplied from each source of supply.
- (b) MW must give SEWL 14 days' notice of its intention to make any major change to the storages from which SEWL is supplied as a result of seasonal changes.

12. PERFORMANCE STANDARDS FOR SECURITY FROM DROUGHT

- (a) MW must aim to operate its water supply system to ensure that:
 - (i) the probability of water restrictions being imposed in the area of SEWL's Licence is never greater than 5%; and
 - (ii) water restrictions are never imposed for more than 12 continuous months; and
 - (iii) water restrictions never exceed Level 3 restrictions, as defined in the Drought Response Plan referred to in sub-clause 14.6(c).
- (b) In making calculations necessary to comply with paragraph (a), MW must:
 - (i) use the demands, restrictable demands and restriction rules established under the Drought Response Plan referred to in paragraph 14.6(c); and
 - (ii) establish minimum operating levels to maintain the pressure and flow and water quality requirements set out in clauses 9 and 10; and
 - (iii) use forecasts provided by the Bureau of Meteorology and other relevant indicators of the need to impose restrictions.
- (c) The parties must, at intervals of not more than five years commencing June 2001, appoint an independent auditor to review and report upon MW's practices and procedures for complying with paragraphs (a) and (b).
- (d) The parties must agree on the terms of reference for and the person to undertake, an audit under paragraph (c).
- (e) MW must co-operate in all respects with that audit and auditor.
- (f) The parties must meet the costs of an audit in equal shares.
- (g) MW must, within 30 days of receiving an auditor's report, determine whether to accept any or all of the findings and recommendations in the report and

when and how it will act on those findings or implement those recommendations.

- (h) MW must:
 - (i) as soon as practicable and within 30 days of receiving the auditor's report, report to SEWL on each matter determined under sub-paragraph (g)(i); and
 - (ii) if it determines not to accept any finding or recommendation in the report, set out in the report referred to in sub-paragraph (i) that finding or recommendation and MW's reasons for not accepting it.

13. **PERFORMANCE STANDARDS FOR SEWL**

13.1 **SEWL's Water Quality Monitoring Program**

- (a) SEWL must undertake a water quality monitoring program to sample and analyse water supplied to its consumers.
- (b) SEWL must give MW a report in electronic form within 9 days after the end of every month, or whenever MW requests, setting out, for each Water Quality Zone:
 - (i) the results of sampling and analysis conducted by SEWL; and
 - (ii) details of customer complaints about water supplied, in the previous month.

13.2 **Operation of SEWL System**

- (a) SEWL must maintain and operate its water supply system in a manner which does not diminish MW's ability to supply water which complies with sub-clauses 9.1 and 10.1.
- (b) If MW fails to comply with sub-clause 9.1 or 10.1 as a result of SEWL's failure to comply with paragraph (a), MW's failure to comply is not a breach of this agreement.

14. **SYSTEM OPERATION PERFORMANCE STANDARDS**

14.1 **Obligations in relation to adverse effects**

- (a) Subject to paragraph (c):
 - (i) a party which operates its water supply system in a way which causes an adverse effect to the water supply system of the other party must, if the other party so requires, pay to that party any additional reasonable costs directly incurred by that party in discharging its obligations under this agreement, or any law and, in the case of SEWL, the Licence and any contract with a customer, as a result of the adverse effect; and

- (ii) any failure by MW to comply with sub-clause 9.1 or 10.1 which is directly attributable to an adverse effect caused by SEWL is not a breach of this agreement.
- (b) Sub-clause (a) does not apply if a party (through its Principal Representative) gives consent to an adverse effect caused by the other party:
 - (i) in writing; and
 - (ii) before the adverse effect is caused; or
 - (iii) after the adverse effect is caused, if the other party advises the first party of the event which caused the adverse effect and of its anticipated consequences.
- (c) For the purpose of this sub-clause, "**adverse effect**" means;
 - (i) damage to any part of a water supply system; or
 - (ii) any act or omission which interferes with the normal operating conditions of any part of a water supply system; or
 - (iii) in the case of MW, any act or omission by SEWL which directly causes MW to fail to comply with sub-clause 9.1 or 10.1.
- (d) A party may only require the other party to pay such additional reasonable costs under paragraph (a) as have, on the balance of probabilities, been caused by the other party.
- (e) The amount of additional reasonable costs referred to in paragraph (d) must be agreed between the parties or, if the parties cannot agree, determined under clause 30.

14.2 Emergency Response and Co-ordinated Crisis Management Plans

- (a) Within 4 months after the date on which this agreement commences, each party must develop and adopt an Emergency Response Plan which includes:
 - (i) a statement of the party's policy and intent; and
 - (ii) incident management plans; and
 - (iii) generic contingency plans; and
 - (iv) contingency plans for particular sites; and
 - (v) standard operating and notification procedures; and
 - (vi) provision for the parties to jointly review each emergency after it has occurred and to identify and agree upon works or measures to prevent, or minimise the likelihood of, such an emergency recurring.

- (b) Within 4 months after the date on which this agreement commences, the parties must jointly develop and adopt a protocol under sub-clause 8.2, to which any other Licensee may be a party, setting out a Co-ordinated Crisis Management Plan to be followed by the parties when any event dealt with by the Plan occurs.
- (c) The parties and any other Licensee referred to in paragraph (b) must review, and if, necessary, agree to revise the Co-ordinated Crisis Management Plan referred to in paragraph (b) before 30 September in every year.
- (d) Each party must implement the party's Emergency Response Plan and the Co-ordinated Crisis Management Plan, as revised from time to time, for the duration of this agreement.

14.3 Emergency Response Plan Incidents

- (a) Whenever:
 - (i) an incident is declared under an Emergency Response Plan of a party; or
 - (ii) that party believes that an event,
with respect to the water supply system of the party may:
 - (iii) affect the security of that system; or
 - (iv) prevent the party from performing any obligation under this agreement,the party must:
 - (v) notify the other party promptly; and
 - (vi) explain to the other party the nature of the event and the effect it has had or is likely to have; and
 - (vii) if the other party so requests, after each incident provide the other party with an interim verbal report on:
 - (A) the reason for the incident occurring; and
 - (B) what action the party needs to take to deal with the incident; and
 - (C) the party's estimate of how long it will take the party to deal with the incident; and
 - (D) options proposed by the party for any additional works or measures which the party needs to undertake to prevent any similar incident occurring; and
 - (viii) as soon as practicable, but within 21 days after each incident, provide the other party with a written report on each of the matters referred to in sub-paragraph (vii); and

- (ix) immediately deploy a team of people experienced in the operation of the system and capable of dealing with the incident, until any problem is rectified; and
 - (x) establish and maintain a 24 hour-a-day contact point for liaison between the parties, until any problem is rectified.
- (b) If an incident referred to in paragraph (a) is declared with respect to MW's water supply system, MW must:
- (i) continue to supply Water Supply Services under this agreement, to the extent that MW's water supply system is capable of doing so; and
 - (ii) use all reasonable endeavours to reinstate its water supply system and resume fully supplying Water Supply Services, as soon as possible; and
 - (iii) consult with SEWL to determine whether MW can provide Water Supply Services under this agreement by alternative means, without affecting MW's ability to provide such services to another Licensee; and
 - (iv) provide Water Supply Services by such alternate means as are agreed by the parties under sub-paragraph (iii); and
 - (v) if MW cannot supply Water Supply Services by alternate means, liaise with SEWL to assist it to obtain supplies from the best available alternative source.
- (c) If an incident referred to in paragraph (a) occurs which may:
- (i) cause harm to the environment; or
 - (ii) cause a risk to the health or safety of any person; or
 - (iii) interrupt or diminish the provision of Water Supply Services to any customer of SEWL,

a party may undertake emergency work or measures in relation to the water supply assets of the other party, but it must advise the other party that it has done so as soon as possible (and no later than 3 hours) after commencing the work or measure.

- (d) A party which undertakes a work or measure under paragraph (c) with reasonable care and diligence may recover its reasonable costs of so doing from the other party.

14.4 Use of SEWL assets in an emergency

- (a) If, in the course of MW providing water supply services to another Licensee solely for the purpose of supplying water within the area of that Licence, an emergency occurs in MW's water supply system which affects that Licensee, SEWL must allow MW access to SEWL's water supply system for the purpose of providing emergency alternative water supply services to that Licensee, whenever allowing MW access would not interfere with SEWL's ability to supply its own customers.

- (b) MW must pay SEWL a fee for access to its works under paragraph (a) for every day or part of a day upon which MW has had access to SEWL's works, during an emergency.
- (c) The fee referred to in paragraph (b) must be agreed between the parties or, if the parties cannot agree, determined under clause 30.

14.5 Planned disruptions to supply

- (a) A party may require a temporary alteration or interruption to the Water Supply Services to a Water Supply Superzone where the alteration or interruption is required:
 - (i) to construct, repair, maintain or commission any part of that party's water supply system; and
 - (ii) in the case of MW, to carry out flow tests; and
 - (iii) in the case of SEWL to provide a temporary additional demand referred to in sub-clause 9.5.
- (b) Unless the parties agree otherwise, a party must give the other party at least 7 days' written notice of its intention to require a temporary alteration or interruption under paragraph (a).
- (c) On receiving notice from MW under sub-clause (b), SEWL may ask MW to postpone any temporary alteration or interruption if a particular customer of SEWL may be adversely affected by the proposed temporary alteration or interruption.
- (d) MW must endeavour to comply with any request made under paragraph (c).
- (e) Where MW requires a temporary alteration or interruption under paragraph (a) which is likely to:
 - (i) affect the quantity or quality of water supplied to SEWL's customers, SEWL will advise and manage relations with those customers, unless the parties agree otherwise;
 - (ii) cause other public inconvenience, MW will advise and manage relations with the public,with respect to the temporary alteration or interruption.

14.6 Drought

- (a) If MW is unable to meet any of its obligations under this agreement because of drought, MW must:
 - (i) give SEWL notice under paragraph 28.2(a); and
 - (ii) act in accordance with clause 28.

- (b) For the purpose of sub-clause (a), "**drought**" means either:
 - (i) a period during which there is insufficient water in MW's storages to meet the anticipated unrestricted demand of all Licensees, because of either:
 - (A) extreme meteorological conditions; or
 - (B) unexpected reduction to inflows to those storages.
- (c) The parties must:
 - (i) together with other Licensees, review and, if necessary, amend the Drought Response Plan prepared under sub-clause 13.3 of the former agreement, at intervals no greater than 3 years; and
 - (ii) implement the Drought Response Plan, as amended from time to time, for the duration of this agreement.

14.7 Maximum Peak Demands

If MW fails to comply with sub-clause 9.1 or 10.1 on any day upon which the total requirements of all Licensees for water supplied by MW exceeds 3100 ML:

- (a) that failure to comply is not a breach of this agreement; and
- (b) MW must comply with paragraph 14.3(b).

15. SEWL'S CUSTOMERS

15.1 General Provisions

- (a) MW must refer to SEWL any enquiry from a SEWL customer about water supplied by SEWL.
- (b) MW must take all reasonable action to ensure that any planned or emergency work or measures undertaken by MW cause minimum disruption to services supplied to SEWL's customers.

15.2 Customers directly connected to MW assets

- (a) Where the premises of an SEWL customer are directly connected to MW's water supply system:
 - (i) Schedule 4 applies; and
 - (ii) MW must take all reasonable action to provide water supplies to the customer to the standards required by the provisions of Schedule 4 relevant to the type of water available to the customer from MW's water supply system; and
 - (iii) except in an emergency, MW must give SEWL 7 days' written notice whenever it proposes to undertake work which may disrupt water supplies to the customer.

- (b) A party must not allow:
- (i) any connection referred to in paragraph (a) to be altered; or
 - (ii) any SEWL customer to make a direct connection to MW's water supply system,
- without first obtaining the written consent of the other party.
- (c) SEWL must not give its consent under paragraph (b) unless the customer and SEWL have entered into a contract containing terms of comparable effect to the terms set out in Part B of Schedule 4 relevant to the type of water available to the customer from MW's water supply system.
- (d) SEWL must use its best endeavours to enter into an agreement with every customer of SEWL whose premises are directly connected to MW's water supply system at the date on which this agreement commences, containing terms of comparable effect to the terms set out in Part B of Schedule 4 relevant to the type of water available to the customer from MW's water supply system.
- (e) SEWL must not enter into an agreement with a customer referred to in paragraph (d) on terms which omit terms of comparable effect to the terms set out in Part B of Schedule 4, without the prior written consent of MW.
- (f) SEWL must use its best endeavours to advise each customer referred to in paragraph (d) at least once in every year and whenever it discovers that the ownership or occupation of the relevant premises has changed:
- (i) whether the water supplied is fit for human consumption; and
 - (ii) that the water supply may:
 - (A) be interrupted, from time to time; or
 - (B) cease, after MW has given SEWL 12 months' notice of its intention to terminate the supply, if such notice is consistent with SEWL's agreement with the customer; and
 - (iii) that if MW gives SEWL notice in accordance with sub-paragraph (f)(ii)(B), MW is not required to provide a customer referred to in the notice with a supply of water, after the period of notice expires.
- (g) SEWL may decide to include in any information statement issued under section 75 of the *Water Industry Act 1994* in respect of premises referred to in paragraph (a), a statement to the effect that:
- (i) the premises are directly connected to MW's water supply system; and
 - (ii) SEWL has entered into a contract under section 21 of the *Water Industry Act 1994* with the owner or occupier of the premises.
- (h) SEWL must install, maintain, operate and read a meter for determining the flow of water supplied to each customer referred to in paragraph (a).

- (i) SEWL must, at intervals no greater than 3 months, give MW a report setting out:
 - (i) the number of premises referred to in paragraph (a); and
 - (ii) the total volume of water, calculated by reference to the meters referred to in paragraph (g), supplied to premises upstream of a MW Billing Meter since the last report.
- (j) SEWL must each year, by a date specified by MW, give MW a report setting out:
 - (i) the location of each premises referred to in paragraph (a); and
 - (ii) the total volume of water supplied to those premises in the preceding 12 months.

PLANNING IMPROVEMENTS AND FUTURE SERVICES

16. PRINCIPLE OF CO-OPERATIVE PLANNING

- 16.1 The parties must co-operate with each other as set out in clause 18 and 19 to undertake studies and analyses and to exchange data and information relevant to determining what Water Supply Services will be required by SEWL in future years.
- 16.2 The parties may adopt a protocol under sub-clause 8.2 to which any other Licensee may be a party, for mutual co-operation between each party to the protocol for the purposes referred to in sub-clause 16.1.
- 16.3 Without detracting from sub-clause 7.3, each party must give prompt written notice to the other whenever it:
 - (a) wishes to initiate any change; or
 - (b) becomes aware of any change or pending change,to its rights or obligations under any law, which is or may be relevant to the rights or obligations of either party under this agreement.
- 16.4 (a) Subject to paragraph (b), each party agrees, on the written request of the other party, to join in requesting the Minister, Department or authority named in the written request not to make, or to review, make, suspend, alter or revoke, any pending change or change referred to in sub-clause 16.3.
- (b) Paragraph (a) does not apply if a party reasonably considers that it would not be in the best interests of that party to act on the written request of the other party.

17. IMPROVEMENTS TO AND WORK UPON MW'S WATER SUPPLY SYSTEM

17.1 Improvements to Pressure and Flow

- (a) By 30 September in each year, SEWL must give MW its estimate of the maximum peak day demand at each Pressure Monitoring Point and Flow Allocation Point for:

- (i) the current year; and
 - (ii) the fifth, tenth and twentieth year after the current year; and
 - (iii) any other year during which SEWL estimates that there will be a significant fluctuation in the demand for water within the area of its Licence.
- (b) MW must provide SEWL with access to all historical data accumulated or held by MW relevant to making estimates required by paragraph (a).
- (c) MW must, in relation to each year for which an estimate is provided under paragraph (a), determine the hydraulic demand which will be placed on MW's water supply system by the maximum peak day demand.
- (d) If a determination under paragraph (c) indicates that, in any year, the hydraulic load will be greater than the hydraulic capacity, MW must take timely action to ensure that the system capacity will be greater than the hydraulic load in that year.

17.2 Work concerning Water Quality

Whenever water quality fails to comply with sub-clause 10.1:

- (a) the parties must promptly jointly prepare a program of actions, works or measures to ensure that the relevant indicators of water quality comply with the requirements of Schedule 3; and
- (b) MW must promptly implement the program referred to in paragraph (a).

17.3 Work concerning Billing Meters

MW must install and commission each Billing Meter in accordance with the manufacturer's specifications.

18. PLANNING AND MAKING CAPITAL INVESTMENTS

- 18.1 (a) Whenever a party is required under this agreement:
- (i) to improve a performance standard referred to in either sub-clause 9.1, or paragraph 12(a); or
 - (ii) to augment the hydraulic capacity of water supply works for such a purpose,
- the parties must, together with any other Licensee which will benefit from the proposed improvement or augmentation, establish a working group to agree on the terms of reference for, and to undertake, an initial study to:
- (iii) identify, assess and estimate the cost of feasible options to make the relevant improvement or augmentation; and
 - (iv) identify and recommend:

- (A) the least-cost community solution for any relevant works or measures; and
 - (B) when such works and measures must be undertaken; and
 - (v) estimate the capital and operating costs of such works and measures; and
 - (vi) determine how such costs must be met; and
 - (vii) determine the location of any interface point which may be required as a result of the works or measures.
- (b) If the parties and any other Licensee represented on the working group do not all accept the recommendations of the working group, they must:
- (i) jointly select and commission a consultant to consider and make recommendations upon such of the matters referred to in paragraph (a) as they determine; and
 - (ii) meet the cost of the study in equal shares.
- (c) The parties and any other Licensee represented on the working group must either:
- (i) adopt and implement the least-cost community solution recommended by the consultant; or
 - (ii) promptly adopt and implement some other least-cost community solution agreed between them; or
 - (iii) implement the solution determined in accordance with clause 30.
- (d) Subject to paragraphs (e) and (f):
- (i) MW must undertake, at its cost, any relevant works or measures upstream of an Interface Point; and
 - (ii) SEWL must undertake, at its cost, any relevant works or measures downstream of an Interface Point.
- (e) Where the recommended least-cost community solution requires the creation of a new interface point, it must be located either:
- (i) no further downstream than will allow MW effectively and efficiently to discharge all of its obligations under this agreement and any comparable agreement with another Licensee; or
 - (ii) no further downstream than will prevent any Licensee from:
 - (A) adversely affecting MW's ability simultaneously to provide water supply services to another Licensee; or
 - (B) adversely affecting MW's ability to operate its water supply system;
or

- (C) exercising unreasonable control over any part of the new works to the detriment of another Licensee; or
- (iii) in the case of a new water treatment plant located on a new pipeline constructed by MW for the purpose of providing water supply services, no further upstream than is required for MW to comply with Schedule 3.; or
- (iv) no further downstream of an existing Interface Point than any new works undertaken by MW, if the new works either:
 - (A) are exclusively required by MW to discharge all of its obligations under this agreement and any comparable agreement with another Licensee; or
 - (B) require the particular expertise of MW in its capacity as a provider of Water Supply Services, to operate or maintain them (for example, a dam, major service reservoir, large water main, major water treatment plant or primary disinfection plant); or
 - (C) are similar to, and more conveniently maintained and operated in conjunction with, immediately contiguous water supply assets of MW.
- (f) Where the recommended least-cost community solution requires the construction by MW of a new water treatment plant on or adjacent to an existing pipeline belonging to SEWL:
 - (i) the interface point must be located at the outlet from the water treatment plant; and
 - (ii) a new Water Quality Monitoring Point must be located by MW no further upstream than is required for MW to comply with Schedule 3.
- (g) An interface point determined under paragraph (e) or (f):
 - (i) is an Interface Point for the purpose of paragraph (d); and
 - (ii) must be entered as an Interface Point in the Water Supply Asset Interface Register held by the Office of the Regulator-General by 30th September in each year.
- (h) A Water Quality Monitoring Point determined under sub-paragraph (f)(ii) is a Water Quality Monitoring Point for the purpose of clause 10 and Schedule 2 is deemed to be amended accordingly.
- (i) A party which undertakes work pursuant to paragraph (d) becomes the owner of the resulting asset and must maintain and operate that asset, at its cost, for the purposes of this agreement.
- (j) Any matter concerning the respective obligations of the parties, with respect to the undertaking, ownership, maintenance or operation of works or measures under this clause which is not provided for by this clause, must be determined under clause 30.

- (k) Before MW undertakes any works or measures which may:
 - (i) have an effect on a performance standard referred to in paragraph (a); or
 - (ii) increase the capacity of MW's water supply system, but which are not works or measures referred to in paragraph (a),

MW must seek and obtain confirmation from SEWL that the proposed works or measures will meet SEWL's needs.

18.2 Other MW Works or Measures

- (a) Unless the parties expressly agree to the contrary, sub-clause 18.1 does not apply to works or measures proposed by MW which:
 - (i) are not referred to in sub-paragraphs 18.1(a)(i) or (ii); or
 - (ii) are undertaken pursuant to MW's general program for maintaining, repairing, renewing or improving the efficiency and effectiveness of its water supply system; or
 - (iii) are undertaken for the purpose of complying with its statutory obligations.
- (b) Before executing any works or measures referred to in paragraph (a), which may have a direct or indirect effect on SEWL, MW must consult with SEWL and invite and take into consideration any comments made by SEWL, about:
 - (i) the reasons for undertaking the works or measures; and
 - (ii) the proposed effects of the works or measures; and
 - (iii) feasible options, other than the proposed works or measures, for achieving those proposed effects; and
 - (iv) the methods of estimating and the estimate of the cost of the works or measures.

19. SCHEDULING AND CO-OPERATIVE PLANNING FOR NEW WORKS AND RENEWALS

19.1 Obligation to adopt a Three Year Capital Works Program

Within 2 months after the date on which this agreement commences, and thereafter by 15 May in every year, the parties must adopt a Three Year Capital Works Program for the ensuing three years, commencing on 1 July in that year.

19.2 Contents of a Three Year Capital Works Program

A Three Year Capital Works Program must:

- (a) identify each project or significant capital works to be undertaken by MW or SEWL for the purposes of this agreement; and
- (b) identify which party must undertake the relevant project or works; and

- (c) set out the anticipated benefits from each project or works, including any benefits concerning:
 - (i) the capacity of the system; and
 - (ii) the ability of the parties to meet their respective legal obligations; and
 - (iii) the achievements of relevant performance standards; and
- (d) set out details of any particular works and anticipated benefits (including works referred to in paragraph 18.1(a)) which have been agreed upon by the parties including:
 - (i) when such works must be undertaken; and
 - (ii) the estimated cost of those works; and
- (e) for other projects or works referred to in paragraph (a), set out:
 - (i) the indicative dates upon which it is proposed to commence and complete the project or works; and
 - (ii) indicative costs of the project or works.

19.3 Duties of parties to comply

- (a) Subject to paragraph (b) and sub-clause 19.4, each party must comply with every aspect of the details referred to in sub-clause 19.2 excluding sub-paragraph 19.2(d)(ii).
- (b) A party which is required to undertake works referred to in paragraph 19.2(d):
 - (i) must meet the actual cost of the works, whether they are less than, or greater than, the estimated costs; and
 - (ii) may retain the benefit of any saving, if the actual costs of the works is less than the estimated cost.

19.4 Power to vary Three Year Capital Works Program

The parties may (through their Principal Representatives) agree in writing to vary any aspect of, or postpone any obligation under, a Three Year Capital Works Program.

19.5 Reporting obligations

Each party must give a written report to the other party by 31 January and 31 July in every year unless the parties agree otherwise (and at such other times which the other party reasonably requests) on:

- (a) its progress in implementing its obligations under the Three Year Capital Works Program since its last report; and

- (b) the degree to which a project or works undertaken by the party under the Three Year Capital Works Program has provided the anticipated benefits referred to in paragraph 19.2(c) since its last report.

19.6 Protocol for co-operation and responsibility in executing works

The parties may adopt a protocol under sub-clause 8.2 concerning their respective obligations in planning, deciding upon, implementing and managing risks associated with projects, works or measures to be undertaken by either or both of them for the purposes of this agreement.

20. TECHNICAL AUDIT OF MW'S ASSET MANAGEMENT PRACTICES

- (a) The parties must, as required by this clause, agree upon:
 - (i) terms of reference for an independent audit of works undertaken by MW for the purposes of this agreement (including MW's design standards, risk profiles, inspection programs and models for, and methods of, making decisions); and
 - (ii) an independent auditor to undertake that audit.
- (b) If the parties are unable to agree on any matter to be agreed from time to time under paragraph (a), the matter must be determined in accordance with clause 30.
- (c) An audit referred to in paragraph (a) must be undertaken:
 - (i) within 12 months of the date of this agreement; and
 - (ii) thereafter, before the expiration of each period of three years.
- (d) MW must:
 - (i) at its cost, engage the independent auditor to undertake the audit agreed under paragraph (a); and
 - (ii) co-operate in all respects with that audit and auditor; and
 - (iii) on receiving the auditor's report:
 - (A) promptly give SEWL a copy of all outcomes of the audit; and
 - (B) within 60 days, determine whether to accept any or all of the findings and recommendations in the report and when and how it will act on those findings or implement those recommendations; and
 - (C) as soon as practicable, and within 60 days of receiving the auditor's report, report to SEWL on each matter determined under subparagraph (B); and

- (D) if it determines not to accept any finding or recommendation in the report, set out in the report referred to in sub-paragraph (C) that finding or recommendation and MW's reasons for not accepting it.

CHARGES FOR WATER SUPPLY SERVICES

21. SEWL'S OBLIGATION TO PAY

Charges and interest payable by SEWL to MW under clause 6 must be determined, calculated, invoiced and paid in accordance with clauses 22 to 25.

22. CHARGES

The charges are as set out in Schedule 5.

23. INVOICING AND PAYMENT OF CHARGES

23.1 When invoicing will occur

- (a) MW must invoice SEWL:
- (i) in advance for the fixed availability charge, on the first of each month, or if that is not a Business Day on the next Business Day; and
 - (ii) in arrears for the usage charge, each Wednesday, or if that is not a Business Day, on the next Business Day.
- (b) For the purpose of this clause, "**Business Day**" means a day (other than a Saturday, Sunday or Public Holiday) on which banks are open for general banking business in Melbourne.

23.2 What an invoice must contain

Each invoice for the usage charge must set out:

- (a) the measured volume of water delivered to SEWL at each Billing Meter since the last invoice; and
- (b) details of any malfunctioning or out-of-service Billing Meter; and
- (c) the period for which any such Billing Meter malfunctioned or was out of service; and
- (d) any volume of water estimated, rather than measured, by MW and the method of making that estimate; and
- (e) any volume of water used by MW to clean, flush or scour any part of its water supply system; and
- (f) any adjustment required as a result of any inaccuracy in a previous invoice; and
- (g) any adjustment made under clause 25; and
- (h) the amount payable by SEWL.

23.3 When an invoice must be paid

- (a) SEWL must pay any invoice given in accordance with sub-clauses 23.1 and 23.2:
 - (i) for the availability charge, by electronic transfer on or before the 15th day of the month (or, if that day is not a Business Day then the next Business Day) in which the invoice is given; and
 - (ii) for the usage charge, by electronic transfer on or before the Wednesday after the invoice is given.
- (b) An electronic transfer under paragraph (a) must be made to such bank account as MW may, from time to time, advise SEWL in writing.

23.4 Interest payable

- (a) SEWL must pay interest at the interest rate on any amount not paid in accordance with sub-clause 23.3, calculated from the date upon which the amount is due until the amount is paid in full.
- (b) For the purposes of paragraph (a), the interest rate is the Bank Bill Reference Swap Rate on the date upon which the amount is due.
- (c) MW must invoice SEWL separately for any interest payable under this sub-clause. SEWL must pay any such invoice within seven days of the date of the invoice.

23.5 Disputes about amounts payable

- (a) SEWL may give MW written notice if it disputes any invoice given under this clause.
- (b) If SEWL so requests, MW must promptly give SEWL further information about the volume of water referred to in the invoice and how any estimate of volume was made.
- (c) Notwithstanding any dispute, SEWL must, on the relevant date referred to in paragraph 23.3(a), pay:
 - (i) the availability charge; and
 - (ii) the greater of:
 - (A) the amount of the usage charge not in dispute; and
 - (B) the average usage charge for the preceding three weeks.
- (d) Any dispute under this sub-clause must be determined in accordance with clause 30.
- (e) A party required to make a payment by a determination made under paragraph (d) must do so within seven days of the date of the determination.

23.6 Deductions or set-offs not allowed

A party must not set-off or deduct moneys payable to the other party under this agreement:

- (a) against or from any other moneys payable by the other party; or
- (b) to make good any breach of this agreement by the other party; or
- (c) if there is a dispute about whether an unmetered boundary valve between SEWL and another Licensee has been operated correctly; or
- (d) for any reason not referred to in paragraph (b) or (c),

without first obtaining the written consent of the other party.

24. CALCULATING USAGE CHARGES

24.1 The usage charge referred to in Schedule 5 must be calculated by reference to volumes determined in accordance with this clause.

24.2 MW must:

- (a) install, maintain, operate and read Billing Meters at:
 - (i) the locations referred to in a Table in Schedule 6; and
 - (ii) such other locations as are agreed between the parties,

for determining the flow of water delivered to SEWL by MW; and

- (b) provide SEWL with instantaneous access to data relevant to SEWL, recorded by any Billing Meter linked to MW's SCADA system.

24.3 MW must apply the formulae in Schedule 6 to determine the volume of flow referable to SEWL.

24.4 The parties, together with other Licensees:

- (a) may, at any time, agree to review and, if appropriate, to revise a formula in Schedule 6; and
- (b) must review and, if necessary, revise the formulae whenever MW installs a new meter pursuant to sub-clause 17.3.

24.5 (a) MW must use its best endeavours to ensure that the rate of leakage of water from its water supply system does not increase during the term of this agreement.

- (b) MW must demonstrate to the satisfaction of SEWL that it continues to comply with paragraph (a) by:
 - (i) undertaking in each year a review of leakage in MW's water supply system; and

- (ii) giving SEWL a copy of the report of each review by 31 December in the relevant year; and
- (iii) undertaking such action as may, from time to time, be necessary to comply with paragraph (a).

24.6 Within 6 months after the date on which this agreement commences, the parties must agree on, adopt and implement a protocol under sub-clause 8.2 for:

- (a) installing, maintaining, operating and reading any Billing Meter; and
- (b) regularly testing for and correcting any electronic malfunction of a Billing Meter, at MW's expense; and
- (c) testing the volumetric accuracy of each Billing Meter; and
- (d) providing SEWL with access to all data resulting from that testing program; and
- (e) re-calibrating, repairing or replacing any Billing Meter found to be registering incorrectly.

24.7 (a) MW must arrange for a test referred to in paragraph 24.6(c) upon the written request and at the expense of, SEWL.

- (b) If a test under paragraph (a) reveals that the device was inaccurate by more than 1%, MW must reimburse SEWL the cost of testing the device.

24.8 If:

- (a) a Billing Meter is, for any part of a billing period out of service; or:
- (b) the data obtained from the Billing Meter is inaccurate, corrupt or cannot be corrected,

MW must calculate the volume of water delivered to SEWL for the relevant period by one of the following methods agreed to by the parties on each occasion:

- (c) by comparison with the volume of water supplied under similar conditions during some other period;
- (d) by comparison with the quantity of water supplied after the Billing Meter has been restored to proper order;
- (e) by comparison with other meters installed at Pressure and Flow Allocation Points which are not Billing Meters;
- (f) by making a calculation based on available pumping station data;
- (g) some other method agreed between the parties.

24.9 If a Billing Meter is found to be registering incorrectly by an error greater than 1%, MW must:

- (a) re-calibrate the device; and
- (b) adjust the invoice in accordance with sub-clause 25.1.

25. ADJUSTMENTS TO CHARGES

25.1 Adjustment for Incorrect Registration

MW is not required to adjust any invoice rendered with respect to a Billing Meter which is found to be registering incorrectly, before the date on which one party notifies the other of a suspected error in registration by that device.

25.2 Adjustment for Failure to Chlorinate

- (a) Subject to paragraph (b), MW must adjust any invoice given under clause 23 by deducting an amount of \$500 for every megalitre of water supplied to SEWL through a primary disinfection plant during any event when no chlorine is added to the water, since the previous invoice.
- (b) MW is not obliged to deduct more than \$50,000 with respect to any one event referred to in paragraph (a).

25.3 Adjustment for Wastage

MW must adjust any invoice given under clause 23 by deducting the volume of water wasted by SEWL in the circumstances described in paragraph 25.2(a).

ADMINISTRATIVE PROVISIONS

26. APPOINTMENT AND AUTHORITY OF PRINCIPAL REPRESENTATIVES

- 26.1 Each party must appoint and must, for the duration of this agreement, keep appointed, a Principal Representative for the purpose of this agreement.
- 26.2 The person named in the address of a party set out in clause 34 is deemed to be the Principal Representative of that party.
- 26.3 Each party must, from time to time, give the other party notice of any change to the name, postal address, e-mail address, telephone number, facsimile number and after-hours contact details of its Principal Representative.
- 26.4 Each party must confer upon its Principal Representative, and hereby warrants to the other party that it has so conferred, all necessary power to give or receive any notice, to give any approval, undertaking or assurance, to enter any agreement, to adopt any protocol or to do any other thing which a party may do under this agreement, on behalf of the party appointing that Principal Representative.
- 26.5 Each party must ensure that the Principal Representatives of the parties:
 - (a) meet regularly to discuss and to resolve any issues arising in the performance of this agreement; and

- (b) liaise with each other for the duration of this agreement to ensure that it is implemented effectively.

27. APPOINTMENT OF OPERATING REPRESENTATIVES

- 27.1 Each party (through its Principal Representative) must appoint, and must for the duration of this agreement keep appointed, one or more Operating Representatives for the purpose of this agreement.
- 27.2 Each party must, from time to time, give the other party notice of:
- (a) the name, postal address, e-mail address, facsimile and telephone number of each Operating Representative appointed from time to time; and
 - (b) the particular obligations of the appointing party under this agreement for which that Operating Representative is responsible.
- 27.3 Each party must confer on each Operating Representative and warrants to the other party that it will so confer, all necessary power to be responsible for the day-to-day administration of those obligations of the appointing party notified under paragraph 27.2(b) in relation to that Operating Representative.
- 27.4 Each party must ensure that the Operating Representatives of the parties for particular obligations of that party,
- (a) meet regularly to discuss and resolve any issues arising under the agreement in relation to those obligations; and
 - (b) liaise with each other for the duration of this agreement to ensure that the agreement is implemented effectively with respect to those obligations.

28. OVERRIDING EVENTS

- 28.1 If either party is unable, because of an overriding event, to perform any obligation, either in whole or in part, under this agreement (other than an obligation to pay money) the obligation is suspended, as far as it is affected by the overriding event and while that event continues.
- 28.2 The party affected will:
- (a) give the other party prompt written notice of the overriding event (and, in any case, within 7 days of learning of it) with reasonably full particulars and, as far as it knows, the probable ways in which it will be unable to perform or be delayed in performing any obligations; and
 - (b) use all possible diligence to remove and mitigate either or both of the overriding event and its effect, as quickly as possible (including expending reasonable funds, deploying other resources and re-scheduling other commitments); and
 - (c) keep the other party informed at regular intervals, or promptly upon the request of the other party, of:

- (i) any change in the party's estimate of the duration or effect of the overriding events; and
- (ii) action taken or proposed by the party under paragraph (b); and
- (iii) whether the overriding event has ceased and whether its effects have been successfully mitigated or minimised; and
- (iv) any other matter in connection with the overriding event or its effects as the other party reasonably requires.

28.3 Paragraph 28.2(b) does not require a party to:

- (a) settle any dispute on terms; or
- (b) meet any claims or demands of any person or public authority,

contrary to the reasonable wishes of the party affected, or its reasonably perceived best interests.

28.4 In any dispute concerning the occurrence, duration or effect of an overriding event, the party affected has the onus of proving that it has complied with paragraph 28.2(b).

28.5 "Overriding event" means any event or circumstance or combination of them which is:

- (a) beyond the reasonable control of the party affected; and
- (b) could not have been prevented or remedied by the party affected taking reasonably prudent steps, including, but not limited to, the expenditure of reasonable sums of money.

28.6 For example, an overriding event might be:

- (a) an act of God;
- (b) war, declared or undeclared, blockade revolution, riot, insurrection, civil commotion, sabotage, explosion;
- (c) a strike, lock out, or other labor dispute;
- (d) lightning, fire, earthquake or epidemic;
- (e) a drought, storm, flood or other natural disaster;
- (f) restraint, expropriation, intervention, direction or embargo imposed by any Parliament or Government or Government agency;
- (g) inability to obtain, or delay in obtaining any necessary approval or other authority from any Parliament or Government or Government agency;
- (h) change of law.

29. **CONFIDENTIALITY**

- 29.1 Except as provided in sub-clauses 29.2 and 29.6, a party must:
- (a) not disclose any confidential information of the other party, without the prior written approval of the other party; and
 - (b) not require, assist or permit any person to have access to, or use, disclose or reproduce any confidential information of the other party; and
 - (c) take reasonable steps to enforce obligations imposed under this clause.
- 29.2 Despite sub-clause 29.1, a party may disclose confidential information of the other party:
- (a) to any employee, contractor or consultant of the party who reasonably needs to know the confidential information for that party to exercise its rights or perform its obligations under this agreement; and
 - (b) if it is:
 - (i) required by any Act; or
 - (ii) compelled by law or a court order, to disclose it; or
 - (iii) demanded by the Relevant Minister.
 - (c) In this sub-clause "**Relevant Minister**" means a Minister responsible for administering an Act which confers functions or powers or imposes duties upon a party that are necessary for that party to enter into and perform this agreement.
- 29.3 A party may only disclose confidential information under paragraph 29.2(a) if it imposes upon the person to whom the confidential information is disclosed, an obligation:
- (a) only to use the confidential information; and
 - (b) not to disclose that confidential information to any other person, except, for the sole purpose for which the confidential information is disclosed.
- 29.4 If a party is required or compelled to disclose confidential information of the other party under paragraph 29.2(b), it must:
- (a) immediately give written notice of that fact to the other party; and
 - (b) use its best efforts only to disclose that confidential information of the other party on terms which preserve the strictest confidentiality.
- 29.5 The parties agree and acknowledge that:
- (a) a party may bring proceedings to restrain any breach of threatened breach by the other party of this clause; and

- (b) the unauthorised use, disclosure or divulgence of, or dealing with, the confidential information of a party by the other party will cause irreparable harm to that party, for which damages will not be an adequate remedy.

29.6 The parties do not intend this clause to prevent MW disclosing to a Licensee other than SEWL information about MW's operation and management of, and plans for improving, MW's water supply system, for the purposes of any bulk water supply agreement between MW and that Licensee.

29.7 This clause survives the termination of this agreement.

29.8 For the purposes of this clause, "confidential information" means:

- (a) any knowledge, information or know-how relating to a party's business, systems, customers, property, assets or affairs which:
 - (i) has been or is disclosed, communicated or delivered to the other party under or in connection with this or the former agreement; and
 - (ii) has come or comes to the knowledge, or into the possession, of the other party under or in connection with this or the former agreement; and
- (b) in the case of SEWL, any knowledge, information or know-how relating to SEWL's business, systems, customers, property, assets or affairs, concerning SEWL's activities under its Licence, which were known to MW before 1 January 1995 because of its activities as a supplier of water and sewerage services in the area of SEWL's Licence,

but does not include the provisions of this agreement other than Schedule 5.

30. **DISPUTE RESOLUTION**

30.1 **When a dispute arises**

- (a) If any difference or dispute arises between the parties under or in relation to this agreement or its subject matter, they agree to seek, in good faith, to resolve the matter by negotiations between the Principal Representatives.
- (b) A difference or dispute arises at the time when one party notifies the other party in writing that there is a difference or dispute about a matter specified in the notice.
- (c) If the Principal Representatives do not resolve the dispute within 7 days of it arising, either party may give written notice to the other party, requiring the matter to be:
 - (i) resolved by the panel under sub-clause 30.2; or
 - (ii) referred to mediation under sub-clause 30.3; or
 - (iii) referred to an expert referee under sub-clause 30.4.
- (d) A party may only commence legal proceedings in respect of a difference or dispute referred to in paragraph (a) after an expert referee referred to in sub-clause 30.4

has had a reasonable opportunity to decide or to make a determination in respect of the difference or dispute.

- (e) If a difference or dispute is referred for resolution under any or all of sub-clauses 30.2, 30.3 and 30.4, neither party may oppose an application for a stay of legal proceedings in respect of the dispute, pending the conclusion of proceedings or the making of a decision or determination, as the case requires, under any or all of those sub-clauses.

30.2 Reference to the panel

- (a) The panel consists of:
 - (i) the Managing Director of MW; and
 - (ii) the Managing Director of SEWL.
- (b) The panel must meet to consider any difference or dispute within 7 days of it being referred to the panel.
- (c) A decision of the panel may only be made by the unanimous agreement of the members of the panel.
- (d) If the panel is unable to reach an agreement on a decision within 14 days of the meeting referred to in paragraph (b), the parties must either refer the matter to:
 - (i) mediation under sub-clause 30.3; or
 - (ii) an expert referee under sub-clause 30.4.

30.3 Mediation

- (a) The mediator is a person:
 - (i) nominated jointly by the party; or
 - (ii) if the parties cannot agree,
 - (A) nominated by the chair of Lawyers Engaged in Alternative Dispute Resolution (or that person's nominee); or
 - (B) determined by some other process agreed between the parties at the time.
- (b) Mediation must occur within 30 days of the appointment of a mediator.
- (c) The parties must meet the mediator's costs in equal shares.
- (d) Mediation must occur in accordance with the Law Institute of Victoria Code of Practice for Mediation, or an equivalent code agreed to by the parties.

- (e) If the parties fail to resolve the difference or dispute within 14 days after mediation has concluded, the difference or dispute must be determined by an expert referee under sub-clause 30.4.

30.4 Reference to expert referee

- (a) The expert referee is a person or persons:
 - (i) nominated jointly by the parties; or
 - (ii) if the parties cannot agree:
 - (A) nominated by the President of the Institution of Engineers Australia (Victorian Division) (or that person's nominee); or
 - (B) determined by some other process agreed between the parties at the time,

who must decide the matter within 30 days of the expert referee's appointment.

- (b) If the expert referee is more than one person, any decision must either be unanimous or made by a majority.
- (c) The expert referee is not an arbitrator.
- (d) An expert referee must give written reasons for a determination, if either party so requests.
- (e) Unless the expert referee otherwise determines, each party must:
 - (i) bear its own costs of proceedings before the expert referee; and
 - (ii) meet the costs of the expert referee in equal shares.

30.5 Dispute deposit

- (a) Within 7 days of the appointment of an expert referee, each party must lodge with the expert referee a dispute deposit of \$50,000 as security against costs and the expert referee's determination.
- (b) Failure by a party to lodge a dispute deposit does not invalidate the appointment of an expert referee or prevent the referee from making a determination.
- (c) An expert referee, as part of its determination, must make an award for some or all of the dispute deposit lodged by a party either to be applied to:
 - (i) the costs of the other party; or
 - (ii) to any amount awarded to the other party as part of the determination, or to be returned to that party.

30.6 **Consequences of a dispute**

- (a) Any decision of the panel or the expert referee is binding on the parties for all purposes, providing that the panel or expert referee has not made a manifest error of fact or law, or failed to observe natural justice.
- (b) Subject to paragraph (a), this clause does not prejudice or affect any right of a party to take any other action under this agreement.

31. **REMEDIES**

- (a) If a party breaches any provision of this agreement and that breach is not excused either by this agreement or by written notice from the other party, the party in breach must pay to the other party any costs or expenses directly incurred by the other party as a result of that breach, without prejudicing any other right which the other party has under this agreement.
- (b) Costs or expenses referred to in paragraph (a), in the case of SEWL, include:
 - (i) any amount which SEWL is required to pay in relation to loss or damage suffered by a customer of SEWL or a consumer of water supplied by SEWL as direct result of MW's breach; and
 - (ii) the difference between:
 - (A) the revenue lost by SEWL as a result of MW's breach; and
 - (B) all direct and indirect costs that SEWL would have incurred in performing this agreement if the breach had not occurred,but do not include:
 - (iii) any amount paid under sub-paragraph (i) which is attributable to indirect, rather than direct, loss or damage; and
 - (iv) any amount calculated under sub-paragraph (ii) which is less than \$10,000; and
 - (v) any amount paid by SEWL to a customer or a consumer of SEWL with respect to a breach by MW, after MW has paid an amount to that customer or consumer with respect to the same breach.
- (c) A party must do everything it reasonably can to mitigate any loss resulting from a breach referred to in paragraph (a).
- (d) SEWL must:
 - (i) take all proper and reasonable action to avoid, resist, compromise and defend any claim by a customer of SEWL or a consumer of water supplied by SEWL with respect to loss or damage referred to in sub-paragraph (b)(i); and

- (ii) must not compromise or make any payment with respect to such a claim, without the prior written consent of MW.
- (e) MW must do anything which SEWL reasonably requests to assist SEWL to avoid, resist, compromise and defend a claim referred to in sub-paragraph (b)(i), at SEWL's cost.

32. AMENDMENTS

- (a) This agreement may be amended in writing signed by both parties or the Principal Representatives of both parties.
- (b) If a party wishes to negotiate a change or addition to this agreement, including any matter not expressly dealt with in this agreement, it may give the other party written notice of the facts, with full details of any changed circumstance and any proposed change or addition.
- (c) Within 7 days of a party receiving a notice under paragraph (b) or such longer period as is agreed between the parties, the parties must enter into good faith negotiations, having regard to all factors relevant to the proposed change or addition.
- (d) The parties must jointly review this agreement and agree on any appropriate amendments at intervals no greater than 3 years.

33. TERMINATION

This agreement will terminate if:

- (a) the parties so agree in writing; or
- (b) SEWL ceases to hold a Licence; or
- (c) MW ceases to have the statutory power to provide Water Supply Services.

34. NOTICES

- 34.1 A notice, consent or other communication under this agreement is only effective if it is in writing, signed and either left at the addressee's address or sent to the addressee by mail, fax or e-mail. If it is sent by mail, it is taken to have been received 3 working days after it is posted. If it is sent by fax, it is taken to have been received when the addressee actually receives it in full and in legible form. If it is sent by e-mail, it is taken to have been received when the sender receives an e-mail acknowledgment that the message has been received.
- 34.2 A party's address and fax number are those set out below, or as the party notifies the other party:

Melbourne Water

Postal address:
PO Box 512
Altona North

3025 Vic

Principal Representative: Tony Antoniou
General Manager – Operations and Maintenance

Fax No: 9235 2692

E-mail address: tony.antoniou@melbwater.com.au

Telephone: 9235 2659

South East Water Limited

Postal address:

Locked Bag 1

Heatherton Vic 3200

Principal Representative: Kevin Hutchings
General Manager – ‘us’ Utility Services

Fax No: 8788 4116

E-mail address: kevin.hutchings@sewl.com.au

Telephone: 8788 4006

35. GST

35.1 For the purpose of this clause "GST" means any consumption tax imposed by a Commonwealth Act, whether at the point of sale or upon some other specified occurrence, by whatever name, which operates during the term of this agreement and includes a goods-and-services tax, a broad-based consumption or indirect tax and a value-added tax.

35.2 Each amount, of whatever description, specified as being payable by one party to the other party under this agreement is expressed net of GST.

35.3 If GST is payable in relation to the Water Supply Services:

(a) the amount payable is the amount determined in accordance with clauses 22, 24 and 25;

PLUS

(b) an amount which will put MW in the same position as if the Water Supply Services were "GST-free", within the meaning of *A New Tax System (Goods and Services Tax) Act 1999*.

35.4 Where payment under this agreement is calculated by reference to a liability incurred by a party, the amount of the liability, for the purpose of that payment is:

(a) the amount of that liability;

LESS

- (b) the amount of any GST input tax credit which the payee is entitled to claim with respect to that liability;

PLUS

- (c) an amount which will put the payee in the same position as if the payment were "GST-free", within the meaning of *A New Tax System (Goods and Services Tax) Act 1999*.

35.5 For the purpose of sub-clause 35.4, "liability" means a payment required under:

- (a) sub-paragraph 14.1(a)(i); or
- (b) paragraph 14.3(d); or
- (c) clause 31; or
- (d) item 3.8 of Schedule 4.

35.6 An amount referred to in paragraph 35.3(b) or 35.4(c) does not include any incidental administrative or overhead costs incurred by a party in the course of complying with the relevant Commonwealth Act.

35.7 The parties must, in good faith and before 30 June 2001, decide when a "tax invoice" with the meaning of *A New Tax System (Goods and Services Tax) Act 1999* will be provided for a payment referred to in sub-clause 35.2 or 35.4 and amend this agreement accordingly.

35.8 The parties must, in good faith, review the operation of, and, if necessary, amend this clause before 30 June 2001.

36. **GENERAL**

36.1 **Governing Law**

This document is governed by the law in force in Victoria.

36.2 **Liability for Expenses**

Each party must pay its own expenses incurred in negotiating and executing this agreement.

36.3 **Giving effect to this agreement**

Each party must do anything (including execute any document) and must ensure that its employees and agents do anything (including execute any document) that the other party may reasonably require to give full effect to this agreement.

36.4 **Waiver of rights**

A right may only be waived in writing, signed by the party giving the waiver (through its Principal Representative) and:

- (a) no other conduct of a party (including a failure to exercise, or delay in exercising, the right) operates as a waiver of the right or otherwise prevents the exercise of the right; and
- (b) a waiver of a right on one or more occasion does not operate as a waiver of that right if it arises again; and
- (c) the exercise of a right does not prevent any further exercise of that right or of any other right.

36.5 **Operation of agreement**

- (a) Except as provided in sub-clause 8.2, this agreement contains the entire agreement between the parties about its subject matter. Any previous understanding, agreement, representation or warranty related to that subject matter is replaced by this agreement and has no further effect.
- (b) Any right that a person may have under this agreement is in addition to, and does not replace or limit, any other right that the person may have.

36.6 **Consents**

Where this document contemplates that a party may agree, consider or consent to something (however it is described) the party may:

- (a) agree, consider or consent, or not agree, consider or consent; and
- (b) agree, consider or consent, subject to conditions,

but must do so reasonably, unless this document expressly contemplates otherwise.

36.7 **Publicity**

A party must not make any public statement relating to this agreement unless:

- (a) the other party has previously agreed to the form and content of the statement; or
- (b) the statement is required to be made by law or a stock exchange.

36.8 **Relationship between parties**

Nothing in this agreement creates a relationship of partnership, principal and agent or trustee and beneficiary between MW and SEWL.

36.9 **Operation of Indemnities**

- (a) Each indemnity in this document survives the expiry or termination of this document.
- (b) A party may recover a payment under an indemnity in this document before it makes any payment in respect of which the indemnity is given.

36.10 Survival

The termination of this agreement does not release a party from any obligation relating to this agreement that, by its nature, survives completion of the agreement, including any obligation of indemnity or confidentiality.

36.11 Counterparts

This document may be executed in counterparts.

EXECUTED as an agreement

THE OFFICIAL SEAL of **MELBOURNE WATER CORPORATION** was fixed in the presence of and the sealing is attested by:

Signature of authorised person

Signature of authorised person

Office held

Office held

Name of authorised person

Name of authorised person

SIGNED for **SOUTH EAST WATER LIMITED** under power of attorney in the presence of:

Signature of attorney

Signature of witness

Name of attorney

Name of witness

Date of power of attorney

SCHEDULE 1

PERFORMANCE STANDARDS FOR PRESSURE AND FLOW

**INDEX OF
WATER SUPPLY SUPERZONES ***

Zone No.	Supply Superzone Name	Licensee	Locality Plans	Zone Plans
6	Preston / North Essendon	CWW/SEW/YVW	SEW-117	SEW-147
25	Montrose	SEW/YVW	SEW-112	SEW-142
26	Boronia / Knox	SEW/YVW	SEW-104	SEW-134
27	Wantirna	SEW	SEW-107	SEW-137
28	Mt.View	SEW/YVW	SEW-113	SEW-143
29	Mt.Waverley	SEW/YVW	SEW-114	SEW-144
30	Narre Warren (Inglis Rd) / Upper Beaconsfield	SEW	SEW-115	SEW-145
31	Berwick South	SEW	SEW-101	SEW-131
32	Hallam North	SEW	SEW-110	SEW-140
33	Dandenong	SEW	SEW-108	SEW-138
34	Cardinia Sub-Zone	SEW/YVW	SEW-105	SEW-135
35	Notting Hill / Moorabbin	SEW	SEW-116	SEW-146
36	Tarago-Westernport	SEW	SEW-103	SEW-133
37	Cardinia/Pakenham/Cranbourne/Frankston	SEW	SEW-106	SEW-136
38	Langwarrin Bipit - Bittern	SEW	SEW-102	SEW-132
39	Devilbend / Dromana-Portsea	SEW	SEW-109	SEW-139
40	Lang Lang (not sourced by MW)	SEW	SEW-111	SEW-141

* A Superzone is a grouping of geographically adjacent water supply pressure zones. Each Locality Plan and Zone Plan referred to in this Index is an exhibit to this agreement.

MW - Pressure Provisions

Zone 6: *Preston/North Essendon Supply Superzone*

Pressure Monitoring Point		Location	Absolute Pressure Provisions	
			Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
	Orange Grove Control (WG19)	at the downstream side of the valve	79.00	99.50
P1	Northcote-Punt Rd Bridge Main (M41) Gosch's Paddock (Yarra River)	at the offtake	78.00	99.50

Special Operational Requirements: None

SEWL - Flow Allocation Limits

Zone 6: Preston/North Essendon Supply Superzone

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Nett Transfer out via Yarra River Flow Meters	80	35	-1,450	-1,050	250	-1,250	-3,500
(b)	Orange Grove PRV (WG19)	60	75	5,800	6,000	6,000	6,000	23,800
Maximum Combined Allocation		140	110	5,800	6,000	6,250	6,000	23,800
Transferred to Other Zones		0	0	-1,450	-1,050	0	-1,250	-3,500
Superzone Total		140	110	4,350	4,950	6,250	4,750	20,300

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) $(FE332F - FE332R) + (FE333F - FE333R) - (FE331F - FE331R) - (FE3008F - FE3008R)$
- (b) FE19 - FE334

Flow Element	Description	Asset No. Monitored
FE331F	Hoddle Bridge (at Yarra R.) Flow North - Forward	MW-M41/39
FE331R	Hoddle Bridge (at Yarra R.) Flow South - Reverse	MW-M41/39
FE3008F	Morell Bridge (at Yarra R.) Flow North - Forward	R-M162
FE3008R	Morell Bridge (at Yarra R.) Flow South - Reverse	R-M162
FE332F	Queens Bridge (at Yarra R.) Flow South - Forward	R-M4
FE332R	Queens Bridge (at Yarra R.) Flow North - Reverse	R-M4
FE333F	Grimes Bridge (at Yarra R.) Flow South - Forward	R-M204
FE333R	Grimes Bridge (at Yarra R.) Flow North - Reverse	R-M204
FE19	Orange Grove Control	MW-M195
FE334	St Kilda (Greeves St) PRV	MW-M195

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 25: *Montrose Systems Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Montrose Reservoir (WR11)	water level in the reservoir	213.00	215.00

Special Operational Requirements:

The natural and unrestricted hydraulic balance between Montrose Reservoir (WR11) and Boronia Reservoir (WR37) is to be retained. Neither source is to be isolated without advice to the Operating Representative and Water Operations Control Centre Preston. MW cannot guarantee continuity of supply from either WR11 or WR37 if either source is restricted at Boronia Pumping Station (WP83).

SEWL - Flow Allocation Limits

Zone 25: Montrose Supply Superzone

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max.Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Montrose Reservoir (WR11) Retail Boundary Flow Meter	75	35	1,125	1,060	1,660	1,265	5,110
(b)	Transfer to The Basin No 1 Reservoir via WP20	-5	-2	-	-10	-90	-40	-140
Maximum Combined Allocation		75	35	1,125	1,060	1,660	1,265	5,110
Transferred to Other Zones		-5	-2	-	-10	-90	-40	-140
Superzone Total		70	33	1,125	1,050	1,570	1,225	4,970

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE3057
- (b) FE43

Flow Element	Description	Asset No. Monitored
FE3057	Colchester Rd at Dandenong Creek Flow	R-Retic
FE43	The Basin No.1 Pump Station Flow	R-WP20

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 26: *Boronia / Knox Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Boronia Reservoir (WR37)	water level in the reservoir	178.00	185.00
Silvan-Waverley Main (M132) Wantirna PRV Offtake (WB50)	at the upstream side of the PRV	179.00	246.00
Cardinia-Notting Hill Main (M378) Stud Road PRV Offtake (WB514)	at the upstream side of the PRV	133.00	167.00

Special Operational Requirements:

The natural and unrestricted hydraulic balance between Montrose Reservoir (WR11) and Boronia Reservoir (WR37) is to be retained. Neither source is to be isolated without advice to the operating Representative and Water Operations Control Centre Preston. MW cannot guarantee continuity of supply from either WR11 or WR37 if either source is restricted at Boronia Pumping Station (WP83).

Reservoir Nominal Operating Level:

During summer, MW will aim to maintain Boronia Reservoir above a level of 180.10 m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

SEWL - Flow Allocation Limits

Zone 26: Boronia / Knox Supply Superzone

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Boronia Outlet Main (M314)	160	55	1,375	1,480	1,810	1,395	6,060
(b)	Transfer from Silvan-Waverley via Wantirna PRV (WB50)	40	15	-	50	500	50	600
(c)	Cardinia-Notting Hill Main (M378) Stud Rd PRV (WB514) Offtake	35	17	400	450	550	500	1,900
(d)	Transfers from Montrose Reservoir via The Basin Pump (WP20)	5	2	-	10	90	40	140
(e)	Transfers to Yarra Valley Water at Dandenong Creek	-15	-5	-100	-130	-150	-120	-500
Maximum Combined Allocation		240	89	1,775	1,990	2,950	1,985	8,700
Transferred to Other Zones		-15	-5	-100	-130	-150	-120	-500
Superzone Total		225	84	1,675	1,860	2,800	1,865	8,200

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE170 + FE200
- (b) FE154
- (c) Stud Rd Flow (B514FT1)
- (d) FE43
- (e) -(FE3055 + FE3056)

Flow Element	Description	Asset No. Monitored
FE170	Boronia Reservoir Outlet Main Flow	R-M314
FE200	Boronia Reservoir Pump Station Flow (to The Basin No 2)	R-WP83
FE154	Silvan-Waverley Main to Wantirna PRV offtake Flow	R-WB50
B514FT1	Stud Rd, Rowville PRV Flow	R-WB514
FE3055	Bayswater Rd at Dandenong Creek Flow	R-Retic
FE3056	Dorset Rd at Dandenong Creek Flow	R-Retic
FE43	The Basin No.1 Pump Station Flow	R-WP20

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 27: *Wantirna Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Wantirna Reservoir (WR38)	water level in the reservoir	129.00	137.00

Special Operational Requirements:

Wantirna Reservoir (WR38) and Knox Reservoir (WR50) zones to remain isolated. Any interconnection or transfer of zones and/or flow to be advised the Operating Representative to Water Operations Control Centre Preston.

Reservoir Nominal Operating Level:

During summer, MW will aim to maintain Wantirna Reservoir above a level of 131.40 m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

SEWL - Flow Allocation Limits

Zone 27: *Wantirna Supply Superzone*

Flow Allocation Point	Flow Allocation Limits						
	Peak Hour Flow Rate (ML/day)	Max.Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
Wantirna Reservoir (WR38)	60	25	200	300	680	420	1,600
Maximum Combined Allocation	60	25	200	300	680	420	1,600
Transferred to Other Zones	-	-	-	-	-	-	-
Superzone Total	60	25	200	300	680	420	1,600

Flow Allocations will be measured using the following expression and monitoring devices:

FE115

Flow Element	Description	Asset No. Monitored
FE115	Wantirna Reservoir Outlet Flow	R-M235

MW - Pressure Provisions

Zone 28: *Mt.View Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Mt View Reservoir (WR15)	water level in the reservoir	149.00	153.00

Special Operational Requirements: **None**

SEWL - Flow Allocation Limits

Zone 28: Mt.View Supply Superzone

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max.Da y (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Mt View Reservoir (WR15) Retail Boundary Flow Meters	17	8	160	175	230	185	750
(b)	Transfer in from Mt.View Zone via WB6/63	0	0	0	0	0	0	0
Maximum Combined Allocation		17	8	160	175	230	185	750
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		17	8	160	175	230	185	750

Flow Allocations will be measured using the following expression and monitoring devices:

- (a) FE3047 + FE3048 + FE3049
- (b) B006FT1 + B063FT1

Flow Element	Description	Asset No. Monitored
FE3047	North Rd at Princes Highway Flow	R-Retic
FE3048	McNaughtons Rd at Princes Highway Flow	R-Retic
FE3049	Princes Highway at Springvale Rd Flow	R-Retic
B006FT1	Springvale No.1 PRV Flow	R-WB6
B063FT1	Springvale No.2 PRV Flow	R-WB63

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 29: *Mt.Waverley Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Mt Waverley Reservoir (WR16)	water level in the reservoir	128.00 *	131.00
Caulfield Park PRV (WB1)	at the upstream side of the PRV	97.00	131.00
Mt Waverley (Inkerman St) Outlet Main (M195) St Kilda (Greeves St) PRV Offtake (WB8)	at the upstream side of the PRV	79.00	131.00

* A lower water level (126.50 m HGL) is required during reservoir maintenance or cleaning as half the storage can be kept in service at this lower level whilst the other half is emptied.

Special Operational Requirements: **None**

SEWL - Flow Allocation Limits

Zone 29: Mt.Waverley Supply Superzone

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Mt Waverley Reservoir (WR16)	230	107	3,000	3,400	4,700	3,500	14,600
(b)	Transfers in from Mt View Zone Via WB3, WB7 and WB55	25	15	490	530	500	550	2,070
(c)	Transfer in from Preston Zone Via WB8	5	1	5	6	13	6	30
	Transfer in from Mt View Zone via Waverley-Notting Hill Main	Included in Mt.Waverley Reservoir Outflow						
Maximum Combined Allocation		260	123	3,495	3,936	5,213	4,056	16,700
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		260	123	3,495	3,936	5,213	4,056	16,700

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) $(FE349 + FE348 - FE19) \times 0.63$
- (b) $(FE410 + FE411 + FE186) \times 0.63$
- (c) $(FE334) \times 0.63$

Flow Element	Description	Asset No. Monitored
FE349	Mt Waverley (High St) Outlet Main Flow	R-M76
FE348	Mt Waverley Outlet Main Flow	MW-M195
FE19	Mt Waverley Outlet Main Orange Gve Control Flow	MW-M195
FE334	St Kilda (Greeves St) PRV Flow	R-WB8
FE410	Huntingdale Rd, Clayton PRV Flow	R-WB3
FE411	Macrina St, Clayton PRV Flow	R-WB7
FE186	Clayton Rd, Clayton PRV Flow	R-WB55

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 30: *Narre Warren (Inglis Rd) / Upper Beaconsfield Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Cardinia-Berwick Main (M378) Narre Warren PRV Offtake (WB77)	at the upstream side of the PRV	135.00	167.00

Special Operational Requirements: None

SEWL - Flow Allocation Limits

Zone 30: *Narre Warren (Inglis Rd) / Upper Beaconsfield Supply Superzone*

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Cardinia-Berwick Main (M378) Narre Warren PRV Offtake (WB77) west	80	50	1,150	1,400	2,100	1,350	6,000
(b)	Upper Beaconsfield (Bowman Rd) Pump Station (WP211) Offtake	8	3	40	60	100	50	250
Maximum Combined Allocation		88	53	1,190	1,460	2,200	1,400	6,250
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		88	53	1,190	1,460	2,200	1,400	6,250

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE425
- (b) FE393

Flow Element	Description	Asset No. Monitored
FE425	Narre Warren PRV Flow - West	R-WB77 (west)
FE393	Beaconsfield Reservoir Inlet/Outlet Main Flow - East	MW-M417

MW - Pressure Provisions

Zone 31: *Berwick South Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Cardinia-Berwick Main (M378) Berwick South PRV Offtake (WB80)	at the upstream side of the PRV	130.00	167.00

Special Operational Requirements: None

SEWL - Flow Allocation Limits

Zone 31: *Berwick South Supply Superzone*

Flow Allocation Point	Flow Allocation Limits						
	Peak Hour Flow Rate (ML/day)	Max.Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
Cardinia Frankston Main (M378) Berwick South PRV Offtake (WB80)	20	9	120	145	205	150	620
Maximum Combined Allocation	20	9	120	145	205	150	620
Transferred to Other Zones	-	-	-	-	-	-	-
Superzone Total	20	9	120	145	205	150	620

Flow Allocations will be measured using the following expression and monitoring devices:

FE452 + FE453 + Proposed

Flow Element	Description	Asset No. Monitored
FE452	Berwick South PRV North Flow to Berwick	R-WB80
FE453	Berwick South PRV South West Flow to Chirside No.1	R-WB80
Proposed	Berwick South PRV South West Flow to Chirside No.2	R-WB80

MW - Pressure Provisions

Zone 32: *Hallam North Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Cardinia-Notting Hill Main (M281) Hallam North PRV Offtake (WB48)	at the downstream side of the PRV	133.00	-

Special Operational Requirements: None

Reservoir Nominal Operating Level:

During summer, MW will aim to maintain Hallam North Reservoir above a level of 134.90 m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

SEWL - Flow Allocation Limits

Zone 32: Hallam North Supply Superzone

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Hallam North Reservoir (WR48)	125	50	2,700	2,050	2,350	2,800	9,900
(b)	Transferred from Dandenong Res Zone via WG445	0	0	0	0	0	0	0
(c)	Transferred to Dandenong Res Zone via WG445	0	0	0	0	0	0	0
Maximum Combined Allocation		125	50	2,700	2,050	2,350	2,800	9,900
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		125	50	2,700	2,050	2,350	2,800	9,900

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE135
- (b) Estimated (R)
- (c) Estimated (F)

Flow Element	Description	Asset No. Monitored
FE135	Hallam North PRV Flow to South	R-M289
Estimated (F)	Dandenong/Hallam Boundary Valve Flow - Forward	R-WG445
Estimated (R)	Dandenong/Hallam Boundary Valve Flow - Reverse	R-WG445

MW - Pressure Provisions

Zone 33: *Dandenong Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Dandenong Reservoir (WR4)	water level in the reservoir	82.00	90.00

Special Operational Requirements:

Hallam PRV's (WB58) are to be set below H.G.R.L 84 metres to ensure that they do not overflow Dandenong Reservoir.

Reservoir Nominal Operating Level:

During summer, MW will aim to maintain Dandenong Reservoir above a level of 84.50 m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

SEWL - Flow Allocation Limits

Zone 33: *Dandenong Supply Superzone*

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Dandenong Reservoir (WR4)	310	140	2,900	4,500	6,600	4,000	18,000
(b)	Transferred from Hallam North Zone via WG445 (Princes Hwy)	0	0	0	0	0	0	0
(c)	Transferred from Cardinia PR Zone via WB49 (Harrisfield PRV)	10	6	-	-	30	-	30
(d)	Transferred to Hallam North Zone via WG445 (Princes Hwy)	0	0	0	0	0	0	0
(e)	Transferred to Notting Hill/Moorabbin Zone via WB47.	-15	-6	-	-	-20	-	-20
Maximum Combined Allocation		320	146	2,900	4,500	6,630	4,000	18,030
Transferred to Other Zones		-15	-6	-	-	-20	-	-20
Superzone Total		305	140	2,900	4,500	6,610	4,000	18,010

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE3014
- (b) Estimated (F)
- (c) FE108
- (e) Estimated (R)
- (f) FE180

Flow Element	Description	Asset No. Monitored
FE3014	Dandenong Reservoir Outlet Flow	MW-WR4
FE108	Harrisfield PRV Flow	R-WB49
FE180	Braeside PRV Flow	R-WB47
Estimated (F)	Dandenong/Hallam Boundary Valve Flow - Forward	R-WG445
Estimated (R)	Dandenong/Hallam Boundary Valve Flow - Reverse	R-WG445

MW - Pressure Provisions

Zone 34: *Cardinia Supply Super Sub-Zone*

Pressure Monitoring Point		Location	Absolute Pressure Provisions	
			Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
P1	Mt View - Dandenong Main (M131) Bakers Road Offtake	at the offtake	126.00	167.00

Special Operational Requirements:

Any re-valving of the distribution main offtakes at the normally shut divide valve in the Mt View - Dandenong Main (M131) at Wellington Rd is to be notified to Operating Representative and Water Operation Control Centre Preston.

SEWL - Flow Allocation Limits

Zone 34: *Cardinia Supply Super Sub-Zone*

Flow Allocation Point		Flow Allocation Limits *						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Cardinia Sub Zone Retail Boundary Flow Meters	67	27	620	670	890	720	2,900
(b)	Transferred to Dandenong Reservoir Zone via WB49	0	0	0	0	0	0	0
Maximum Combined Allocation		67	27	620	670	890	720	2,900
Transferred to Other Zones		0	0	0	0	0	0	0
Superzone Total		67	27	620	670	890	720	2,900

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) **FE129 + FE418R + FE3050 + FE3051F + FE3052 + FE3053 - FE418F - FE3051R**
- (b) **FE108**

Flow Element	Description	Asset No. Monitored
FE129	Cardinia-Notting Hill Main - Bakers Rd Cross-connection	MW-M281
FE418R	Bakers Rd, Dandenong East Flow	R-Retic
FE3050	Wanda St, Dandenong Flow	R-Retic
FE3051F	Hansworth Rd, Dandenong Flow - Forward	R-Retic
FE3052	Jacksons Rd, Dandenong (at Police Rd) Flow	R-Retic
FE3053	Barron Court, Dandenong Flow	R-Retic
FE418F	Bakers Rd, Dandenong West Flow	R-Retic
FE3051R	Hansworth Rd, Dandenong Flow - Reverse	R-Retic
FE108	Harrisfield PRV Flow	R-WB49

* The flow allocations in this table have been calculated in part using estimations. Meters have been recently installed at the Licence boundary but readings from these meters have not been used to calculate the flow allocation. After data has been collected from these meters for a suitable period of time, the flow allocations will be recalculated.

MW - Pressure Provisions

Zone 35: *Notting Hill/Moorabbin Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Notting Hill Reservoir (WR17)	water level in the reservoir	99.00	106.20

Special Operational Requirements: **None**

Reservoir Nominal Operating Level:

During summer, MW will aim, to maintain Notting Hill Reservoir above a level of 101.20 m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

SEWL - Flow Allocation Limits

Zone 35: *Notting Hill/Moorabbin Supply Superzone*

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Notting Hill Reservoir (WR17)	420	205	6,400	7,950	11,350	7,900	33,600
(b)	Transfer in from Mt.View Zone via WB6/63	0	0	0	0	0	0	0
(c)	Transferred in from Dandenong Reservoir Zone via WB 47	15	6	-	-	20	-	20
Maximum Combined Allocation		435	211	6,400	7,950	11,370	7,900	33,620
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		435	211	6,400	7,950	11,370	7,900	33,620

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE307 + FE79
- (b) B006FT1 + B063FT1
- (c) FE180

Flow Element	Description	Asset No. Monitored
FE307	Notting Hill Reservoir Outlet Main 1700mm	R-M361
FE79	Notting Hill - Sandringham Main 1350mm	R-M129
B006FT1	Springvale No.1 PRV Flow	R-WB6
B063FT1	Springvale No.2 PRV Flow	R-WB63
FE180	Braeside PRV Flow	R-WB47

MW - Pressure Provisions

Zone 36: Tarago-Westernport Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Tarago - Westernport Main (M420) Offtake to A'Beckett Rd, Bunyip (WB138) and Offtake to Garfield PRV (WB193)	at the upstream side of Garfield PRV	115.00	167.00
Tarago - Westernport Main (M420) Tynong Offtake PRV (WB196)	at the upstream side of the PRV	120.00*	167.00
Tarago-Westernport Main (M420) Koo Wee Rup Offtake (WB159)	at the upstream side of the PRV	75.00	167.00

Special Operational Requirements:

* While PRS Operating

SEWL - Flow Allocation Limits

Zone 36: Tarago-Westernport Supply Superzone

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Tarago-Westernport Main (M420) A'Beckett Rd, Bunyip (WB138)	6	3	90	115	165	110	480
(b)	Tarago-Westernport Main Garfield Reservoir (WR145)	3	2	60	75	130	95	360
(c)	Tarago-Westernport Main Tynong Reservoir (WR146)	5	2	90	105	155	110	460
(d)	Tarago-Westernport Main Koo Wee Rup (WB159)	5	2	40	50	75	45	210
Maximum Combined Allocation		19	9	280	345	525	360	1,510
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		19	9	280	345	525	360	1,510

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE3073
- (b) FE3003
- (c) FE3011
- (d) FE3017

Flow Element	Description	Asset No. Monitored
FE3073	Tarago-Westernport Main - Bunyip High Level Tank Inlet	R-WT43
FE3003	Tarago-Westernport Main - Garfield Offtake Flow	MW-WB193
FE3011	Tarago-Westernport Main - Tynong Offtake Flow	MW-WB196
FE3017	Tarago-Westernport Main - Koo Wee Rup Low Level Tank Inlet Flow	R-WR168

MW - Pressure Provisions

Zone 37: *Cardinia / Pakenham / Cranbourne / Frankston Supply Superzone*

Pressure Monitoring Point		Location	Absolute Pressure Provisions	
			Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
-	Pakenham No 2 Reservoir (WR148)	water level in the reservoir	99.00	101.30
-	Beaconsfield-Langwarrin Main (M418) Centre Road Langwarrin offtake (WB181)	at the offtake	100.00	140.00
-	Beaconsfield-Langwarrin Main (M418) Aqueduct Road offtake (WP229)	at the offtake	92.00 when pumps running 90.00 at other times	140.00
-	Cranbourne Reservoir (WR167)	water level in the reservoir	84.00	95.00 when bypassing
P1	Langwarrin - Frankston No. 1 & 2 Mains (M427/462) South Frankston Pipeline Offtake (M433)	at the offtake	82.00	90.00 *
-	Frankston Reservoir (WH142) Detention Tank Outlet (WR170) (Pumping to Rosedale Gve)	at the outlet	70.00	110.00
-	Frankston Reservoir (WH142) Frankston Town Main Offtake (M428)	water level in the reservoir	75.80 based on water quality	77.80

* Applies only when supply is from Langwarrin-Frankston No.2 Main.

Special Operational Requirements:

Soldiers Road PRV setting will be adjusted down to 100 metres when Cranbourne Reservoir is by-passed for cleaning etc.

SEWL - Flow Allocation Limits

Zone 37: *Cardinia / Pakenham / Cranbourne / Frankston Supply Superzone*

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Pakenham Reservoir (WR148)	30	13	360	410	590	440	1,800
(b)	Beaconsfield-Langwarrin Main (M418)	95	45	570	740	1,450	840	3,600
(c)	Cranbourne Reservoir (WR167)	50	25	400	500	1,200	600	2,700
(d)	Langwarrin-Frankston No.1 & 2 Mains (M427/462)	50	35	570	740	1,450	840	3,600
(e)	Frankston Reservoir (WH142)	130	80	2,500	3,000	4,400	3,100	13,000
Maximum Combined Allocation		355	198	4,400	5,380	9,090	5,820	24,700
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		355	198	4,400	5,380	9,090	5,820	24,700

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE3020
- (b) FE392 - Proposed A - Proposed B - FE615 + FE612
- (c) FE572 + FE573
- (d) 408 FT1 + FE583 + FE560 - Proposed D
- (e) FE557 + FE559

Flow Element	Description	Asset No. Monitored
FE392	Cardinia - Berwick Main at Soldiers Rd PRV	MW-WB81
Proposed A	Pakenham Reservoir Inflow	MW-WR148
FE3020	Pakenham Reservoir Outflow	MW-M
Proposed B	Cranbourne Reservoir Inflow	MW-WR167
FE572	Cranbourne Reservoir Outflow to Town Main	R-M426
FE573	Cranbourne Reservoir Outflow to Devon Meadows	R-M452
FE615	Beaconsfield - Langwarrin Main at BIPIT	MW-M418
FE612	Aqueduct Road Pumping Station Flow	R-WP229
408 FT1	East Frankston Tank Outlet Flow	R-WP191
FE583	Mornington Pipeline Flow	R-M437
FE560	South Frankston Pipeline Flow	R-M433
FE557	Frankston Pumping Station (Detention Tank) Flow	MW-WR170
FE559	Frankston Reservoir Outlet Mains Flow	R-M429
Proposed D	Mornington Pipeline - Mornington Reservoir Inflow	R-M437

MW - Pressure Provisions

Zone 38: Langwarrin Bipit - Bittern Supply Superzone

Pressure Monitoring Point		Location	Absolute Pressure Provisions	
			Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
-	Langwarrin - Bittern No 2 Main (M441) Somerville High Level Offtake (WP202)	at the offtake	84.00	89.50
-	Langwarrin - Bittern No 2 Main (M441) Hastings Offtake (to Westernport Basin) (WR156)	at the offtake	82.00	89.50
-	Langwarrin - Bittern No 2 Main (M441) East Bittern Pump Station (WP205) - Rising Main to Naval Base Pipeline	at the pumps delivery	82.00	110.00
-	Mornington Reservoir (WR143)	water level in the reservoir	71.00	73.50
-	Tyabb-Mornington Main (M440) Outlet of PRV (WB157) to Mornington Town Main	at the downstream side of the PRV	71.00	74.00
-	Tyabb-Mornington Main (M440) Mornington Pump Station Offtake (WP218)	at the offtake	68.00	85.00
P1	Bittern-Dromana No 2 Main (M422) Devilbend-Mt Martha Pipeline Offtake (M459)	at the offtake	73.00	100.00

Special Operational Requirements:

Under summer operation (Dec to Mar) the Mornington gravity zone will be supplied from Mornington Reservoir and the Devilbend-Mt Martha Pipeline requiring South East Water to shut previously nominated valves mid-system to isolate the two sources.

Only Tyabb Reservoir pressure (not Tarago) will be available if the Mornington Town Main is supplied directly from the PRV on the Tyabb-Mornington Main.

SEWL - Flow Allocation Limits

Zone 38: Langwarrin Bipit - Bittern Supply Superzone

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Langwarrin-Bittern No.2 Main (M441) from Bipit (WB171) and Tyabb Res.(WR144)	80	45	1,095	1,265	1,970	1,340	5,670
(b)	Mornington Reservoir (WR143)	68	35	720	850	1,390	910	3,870
(c)	Bittern-Dromana No. 2 Main (M422) to D/bend-Mt.Martha Pipeline	15	7	-	100	500	-	600
Maximum Combined Allocation		163	87	1,815	2,215	3,860	2,250	10,140
Transferred to Other Zones		-	-	-	-	-	-	-
Superzone Total		163	87	1,815	2,215	3,860	2,250	10,140

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE565F + FE570 - FE592 + Proposed A + FE594
- (b) FE605 + FE563 + FE604
- (c) FE537

Flow Element	Description	Asset No. Monitored
FE565F	Langwarrin-Bittern No.2 Main Flow from BIPIT	MW-M441
FE570	Tyabb Reservoir Outflow to No.2 Main	MW-WR144
FE592	Langwarrin-Bittern No.2 Main Flow to Bittern Reservoir	MW-M441
Proposed A	East Bittern Pump Station Flow to No. 2 Main	MW-WP205
FE594	East Bittern Pump Station Flow to Rising Main	R-M434
FE605	Tyabb-Mornington Main PRV Flow to Morn.Town Main	MW-M440
FE563	Mornington Reservoir Gravity Outflow	R-M439
FE604	Mornington Reservoir Pumping Station Flow	R-WP218
FE537	Devilbend-Mt.Martha Pipeline Flow	R-M459

MW - Pressure Provisions

Zone 39: *Devilbend / Dromana / Portsea Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Dromana Reservoir (WR141)	water level in the reservoir	67.70 summer min. 66.00 at other times	68.50

Special Operational Requirements: None

SEWL - Flow Allocation Limits

Zone 39: *Devilbend / Dromana-Portsea Supply Superzone*

Flow Allocation Point		Flow Allocation Limits						
		Peak Hour Flow Rate (ML/day)	Max Day (ML)	Winter (ML)	Spring (ML)	Summer (ML)	Autumn (ML)	Annual (ML)
(a)	Dromana Reservoir (WR141)	130	105	1,350	1,850	3,950	1,900	9,050
(b)	Transfer from Bittern-Dromana No. 2 Main (M422) via D/bend-Mt.Martha Pipeline to Mt.Martha	-15	-7	0	-100	-500	0	-600
Maximum Combined Allocation		130	105	1,350	1,850	3,950	1,900	9,050
Transferred to Other Zones		-15	-7	0	-100	-500	0	-600
Superzone Total		115	98	1,350	1,750	3,450	1,900	8,450

Flow Allocations will be measured using the following expressions and monitoring devices:

- (a) FE556
- (b) FE537

Flow Element	Description	Asset No. Monitored
FE556	Dromana Reservoir Outflow	R-M451
FE537	Devilbend - Mt Martha Pipeline Flow	R-M459

SCHEDULE 2**ENTRY POINTS AND****WATER QUALITY MONITORING POINTS**

A Plan designating Entry Points, Water Quality Monitoring Points and Water Quality Zones described in this Schedule is an exhibit to this agreement.

SiteCode	WQ Zone No.	Melway Ref.	Location Description
ENTRY POINT			
ECARHLMN	630-700	91 J4	Cardinia - Notting Hill Main At Hallam North Prs
ECARSOLD	310, 311, 320, 321, 322, 330	131 G 1	Cardinia - Berwick Main At Soldiers Rd, Beaconsfield
ESILWAV1	570-590, 610, 620	120 B 4	Silvan-Waverley Main - Tap On Main At Mt Evelyn
ESILOLI1	570-590, 610, 620	120 B 4	Silvan Olinda P/L at Mt Evelyn
ETTPCWSO	360,350, 270, 260, 320, 321, 430, 390, 400, 271, 340, 323, 300, 450, 710, 410, 420, 440, 370, 330,280	VICM SE 527 J2	Tarago Treatment Plant Storage Outlet
EWINSLRM	620	273 A8	Winneke CWS Outlet Main in Sludge P/Stn
WQ MONITORING POINT			
MBITPLPO	330	107 G 5	Bittern N02 P/L - Pearcedale Offtake
MBITPLSB	350, 360, 370	153 E9	Bittern NO2 P/L - Somers/Bittern Offtake
MCFDKFPK	620	59 C 11	46" Main From Waverley At Caulfield Park (M195)
MDRO900D	430, 440	159 E9	Dromana 900mm Detention Point
MFSTDETP	323, 390	102 C3	Frankston Detention Point - The Crest
MFSTLANG	320, 330, 390, 400, 700	103 J8	Frankston P/L At Langwarrin
MFSTN01I	390, 400	102 E10	Frankston Reservoir Inlet on No.1 Pipeline
MFOOTSOM	620	41 K8	Footscray Main - Maribyrnong River
MGARDETP	271	ES 769 D5	Garfield Detention Point
MMORNDTP	410, 420	104 K 10	Mornington Detention Point
MMTEMPAD	410	105 A9	Mornington - Mt.Eliza Pumps Detention Point - Padua College

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SiteCode	WQ Zone No.	Melway Ref.	Location Description
MPAKDETP	290	216 K2	Pakenham Detention Point
MPUNTSYR	610, 620	58 C3	Punt Rd Main at Fawkner Pk South Yarra
MTYNDETP	280	ES 768 H4	Tynong Detention Point
RBRNART1	570, 580, 581	65 G6	Boronia Reservoir - Tap On Res.
RBUNHET1	270	ES 769 J6	Bunyip High Level Outlet - Abeckett Rd.
RCRANET1	320, 321	133 J 8	Cranbourne Tank - Outlet
RDNDGIT1	660	81 A 9	Dandenong Tanks - Inlet No. 1
RDNDGIT2	660	81 A 9	Dandenong Tanks - Inlet No. 2
RDNG1RT1	640, 650	81 A 9	Dandenong Tank No. 1 - Tap On Res.
RDNG2RT1	640, 650	81 A 9	Dandenong Tank No. 2 - Tap On Res.
RFSTDTKO	400	102 E 10	Frankston Detention Tank - Outlet
RHLMNRT1	630	91 K 1	Hallam North Reservoir - Tap On Reservoir
RKWRTE1	260, 300, 450	ES 922B H 5	Koo Wee Rup Tower - Outlet
RMON1ET1	580,581	52 A 6	Montrose Reservoir No.1 - Outlet
RMTVWET1	660	71 E 5	Mount View Reservoir - Outlet
RNTG1ET1	670, 680, 690	70 E 8	Notting Hill 1 Reservoir Outlet Main
RNTG2ET1	670, 680, 690	70 E 8	Notting Hill 2 Reservoir Outlet Main
RPRESET1	610, 620	18 G 7	Preston Reservoirs - Combined Outlet Main
RTYABSTO	340, 350, 360, 370, 710	148 A12	Tyabb Reservoir Outlet Main
RWAN1RT1	590	63 G 6	Wantirna Reservoir No.1 - Tap On Reservoir
RWAN2RT1	590	63 G 6	Wantirna Reservoir No.2 - Tap On Reservoir
RWAVYET1	610	61 G 12	Mt Waverley Reservoir - 900 Mm Outlet Main
RWAVYET2	610	61 G 12	Mt Waverley Reservoir - 46" Outlet Main

SiteCode	WQ Zone No.	Melway Ref.	Location Description
RDNG1RT1	640, 650	81 A 9	Dandenong Tank No. 1 - Tap On Res.
RDNG2RT1	640, 650	81 A 9	Dandenong Tank No. 2 - Tap On Res.
RFSTDTKO	400	102 E 10	Frankston Detention Tank - Outlet
RHLMNRT1	630	91 K 1	Hallam North Reservoir - Tap On Reservoir
RKWRTET1	260, 300, 450	ES 922B H 5	Koo Wee Rup Tower - Outlet
RMON1ET1	580,581	52 A 6	Montrose Reservoir No.1 - Outlet
RMTVWET1	660	71 E 5	Mount View Reservoir - Outlet
RNTG1ET1	670, 680, 690	70 E 8	Notting Hill 1 Reservoir Outlet Main
RNTG2ET1	670, 680, 690	70 E 8	Notting Hill 2 Reservoir Outlet Main
RPRESET1	610, 620	18 G 7	Preston Reservoirs - Combined Outlet Main
RTYABSTO	340, 350, 360, 370, 710	148 A12	Tyabb Reservoir Outlet Main
RWAN1RT1	590	63 G 6	Wantirna Reservoir No.1 - Tap On Reservoir
RWAN2RT1	590	63 G 6	Wantirna Reservoir No.2 - Tap On Reservoir
RWAVYET1	610	61 G 12	Mt Waverley Reservoir - 900 Mm Outlet Main
RWAVYET2	610	61 G 12	Mt Waverley Reservoir - 46" Outlet Main
RDNG1RT1	640, 650	81 A 9	Dandenong Tank No. 1 - Tap On Res.
RDNG2RT1	640, 650	81 A 9	Dandenong Tank No. 2 - Tap On Res.
RFSTDTKO	400	102 E 10	Frankston Detention Tank - Outlet
RHLMNRT1	630	91 K 1	Hallam North Reservoir - Tap On Reservoir
RKWRTET1	260, 300, 450	ES 922B H 5	Koo Wee Rup Tower - Outlet
RMON1ET1	580,581	52 A 6	Montrose Reservoir No.1 - Outlet
RMTVWET1	660	71 E 5	Mount View Reservoir - Outlet
RNTG1ET1	670, 680, 690	70 E 8	Notting Hill 1 Reservoir Outlet Main
RNTG2ET1	670, 680, 690	70 E 8	Notting Hill 2 Reservoir Outlet Main
RPRESET1	610, 620	18 G 7	Preston Reservoirs - Combined Outlet Main
RTYABSTO	340, 350, 360, 370, 710	148 A12	Tyabb Reservoir Outlet Main
RWAN1RT1	590	63 G 6	Wantirna Reservoir No.1 - Tap On Reservoir
RWAN2RT1	590	63 G 6	Wantirna Reservoir No.2 - Tap On Reservoir
RWAVYET1	610	61 G 12	Mt Waverley Reservoir - 900 Mm Outlet Main
RWAVYET2	610	61 G 12	Mt Waverley Reservoir - 46" Outlet Main

SCHEDULE 3

WATER QUALITY STANDARDS

PART A -EFFECTIVE DISINFECTION

1. MW must ensure that at primary chlorinators Chlorine Contact Time ("Ct") is ≥ 15.0 mg/L.min, for chlorinated water, and

where Ct is determined according to the following formula:

$$Ct = C \times 0.7 \times T$$

Where C = the free chlorine residual (mg/L) measured at a chlorination plant.

T = the time taken for water to travel from the primary chlorinator to the first consumer (minutes).

0.7 is an adjustment factor that allows for the decay characteristics of chlorine.

(The Ct limit is set to achieve a minimum 3-log removal of viral and bacterial pathogens in accordance with USEPA validation data. The Ct standard of 15mg/L.min for chlorination is based on the Australian Drinking Water Guidelines recommendation of at least 0.5 mg/L and 30 minutes contact time for effective disinfection).

PART B -WATER QUALITY MONITORING

1. **INTERPRETATION**

- 1.1 In this Part:

"Entry Point" means the first point of entry to the distribution from a raw water source after primary disinfection

"Monitoring Point" is an interface point in the distribution system between MW and Retail Company assets where Water Quality Monitoring is carried out and can include Entry Points.

"UCL" means upper confidence limit.

"year" means a rolling 12 month period.

"action" means as per agreed procedures or in consultation with SEWL.

- 1.2 Annual standards referred to in this Part are detailed for the relevant Monitoring Points in Part C.

2. **REPORTING**

MW must set out in the monthly Customer Report to SEWL:

- (a) Results for the preceding 12 months at each Monitoring Point for:
 - (i) compliance with the standards in Part C of this schedule
 - (ii) coliforms
 - (b) Corrective actions and investigations taken within the relevant month

HEALTH-RELATED PARAMETERS

3. **E.COLI**

3.1 For samples taken at any Entry Point in any year the percentage of samples having less than one *E.coli* per 100ml must be greater than or equal to 99%. For samples taken at any Monitoring Point in any year the percentage of samples having less than one *E.coli* per 100ml must be greater than or equal to 98% . (This is based on a historical performance at Entry and Monitoring Points from 2001/02 to 2003/04 which is equal to or better than the 2005 Victorian Safe Drinking Water Regulations requirement for *E.coli* of 98% < 1 org/100ml at customer taps).

3.2 MW must declare an incident in accordance with Clause 14.3 upon any *E.coli* detection at a Monitoring Point and take immediate action.

4. **DISINFECTION BYPRODUCTS**

4.1 The standards for trihalomethanes and chloroacetic acids are based upon documented scientific investigations of the rates of disinfection by-product formation within supply systems and the 2005 Victorian Safe Drinking Water Regulations. MW and SEWL must operate cooperatively to ensure compliance with the standards at customer taps in the Victorian Safe Drinking Water Regulations.

4.2 For trihalomethanes, all samples for any year taken at a Monitoring Point must not be greater than 0.15 mg/L.

4.3 For monochloroacetic acid, all samples for any year taken at a Monitoring Point must not be greater than 0.12 mg/L.

4.4 For dichloroacetic acid, all samples for any year taken at a Monitoring Point must not be greater than 0.08 mg/L.

4.5 For trichloroacetic acid, all samples for any year taken at a Monitoring Point must not be greater than 0.08 mg/L.

4.6 MW must take action if any sample at a Monitoring Point exceeds the standards for disinfection byproducts.

5. **FLUORIDE**

MW must fluoridate and monitor fluoride levels in accordance with the Health (Fluoridation) Act 1973.

AESTHETIC PARAMETERS

6. **TURBIDITY**

6.1 Of samples taken at any Monitoring Point in any year, the 95% UCL of the annual mean must not exceed the maximum 95% UCL of the annual mean at any time in the years 2001/02 to 2003/04. The period 2001/02 to 2003/04 represents water quality influenced by maximisation of the Winneke source and following the period of storage recovery the turbidity standards must be reviewed to reflect the ongoing operations.

6.2 MW must take action if the turbidity exceeds at a Monitoring Point the values in Part C for three samples within a four week period.

6.3 MW must take immediate action if turbidity in any sample exceeds:

- (a) 3.5 NTU at any Monitoring Point for unfiltered supplies; or
- (b) 1.0 NTU at any Entry Point for filtered supplies.

6.4 During drought recovery periods MW and SEWL can, by mutual agreement, vary the turbidity standard and action limits for specific Monitoring Points to optimise the harvesting of water sources.

7. **APPARENT COLOUR**

7.1 Of samples taken at any Monitoring Point in any year, the 95% UCL of the annual mean must not exceed the maximum 95% UCL of the annual mean at any time in the years 2001/02 to 2003/04. The period 2001/02 to 2003/04 represents water quality influenced by maximisation of the Winneke source and following the period of storage recovery the colour standards must be reviewed to reflect the ongoing operations.

7.2 MW must report in the Customer Report if the apparent colour at a Monitoring Point exceeds the values in Part C for three samples within a four week period.

7.3 MW must take immediate action if the apparent colour in any sample exceeds:

- (a) 15 Pt/Co units at any Monitoring Point for unfiltered supplies; or
- (b) 10 Pt/Co units at any Monitoring Point for filtered supplies.

7.4 Apparent colour is used for this standard rather than true colour because apparent colour is a more direct indicator of what customers will observe of the water. It is also a conservative measure being greater than the true colour. MW must test for true colour when values of apparent colour exceed 15 Pt/Co units.

7.5 During drought recovery periods MW and SEWL can, by mutual agreement, vary the colour standard and action limits for specific Monitoring Points to optimise the harvesting of water sources.

8. **pH**

8.1 Of samples of water taken at any Monitoring Point in any year, the 95% upper and lower confidence limits of the annual mean must be within the range set in Part C.

8.2 MW must take action if the pH at a Monitoring Point falls outside the range set in Part C for three samples within a four week period.

8.3 If the pH data collected at a Monitoring Point shows a statistically significant change from MW's historical pH data, the parties, together with any other Licensee which may be affected by the change, must undertake co-operative planning in accordance with Clause 16.

8.4 MW and SEWL can, by mutual agreement, vary the pH standard and action limits for specific Monitoring Points.

9. IRON

9.1 The aesthetic limit for iron in the Australian Drinking Water Guidelines is 0.3 mg/L.

9.2 Of samples of water taken at any Monitoring Point, the maximum 95% UCL of the annual mean for any year must not be greater than 0.15 mg/L.

10. MANGANESE

10.1 The aesthetic limit for Manganese in the Australian Drinking Water Guidelines is 0.1 mg/L.

10.2 Of samples of water taken at any Monitoring Point, the maximum 95% UCL of the annual mean for any year must not be greater than 0.05 mg/L.

11. ALUMINIUM (ACID SOLUBLE)

11.1 The standard for aluminium in the 2005 Victorian Safe Drinking Water Regulations is 0.2 mg/L for supplies treated with aluminium-based chemicals.

11.2 Of samples of water taken at any Monitoring Point where aluminium-based treatment chemicals have been used, the maximum 95% UCL of the annual mean at any site for any year must not be greater than 0.1 mg/L

11.3 Of samples of water taken at any Monitoring Point where aluminium-based chemicals have not been used, the maximum 95% UCL of the annual mean at any of these sites for any year must not be greater than 0.15 mg/L

11.4 MW must take immediate action if aluminium (acid soluble) in any sample exceeds:

(a) 0.10 mg/L at any Monitoring Point that aluminium based chemicals have been used in the treatment process

(b) 0.15 mg/L at any Monitoring Point supplied from a source that has not been treated with an aluminium based chemical in the treatment process.

ADDITIONAL PARAMETERS

12. COLIFORMS

MW must monitor coliforms at every Monitoring Point and take immediate action upon:

- (a) any coliform detection at an Entry Point, or
- (b) any coliform detection >100 org/100ml or three coliform detections within a four week period >10 org/100ml at a Water Quality Monitoring Point.

13. ALGAE

MW must take action and notify SEWL of any increase in algal numbers that may impact on the quality of drinking water supplied.

PART C - WATER QUALITY STANDARDS

	Water Quality Zone No	Monitoring Point Site Code	Description	<i>E.coli</i>	CT	Turbidity	Apparent Colour	pH		Iron	Manganese	Fluoride		Aluminium (Acid Soluble)	THMs	Chloro acetic Acid	Dichloro acetic Acid	Trichloro acetic Acid
				(org/100mL)	(min.m g/L)	(NTU)	Pt/Co	(unit) Lower Limit	(unit) Upper Limit	(mg/L)	(mg/L)	(mg/L) Lower Limit	(mg/L) Upper Limit	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SEW1	630-700	ECARHLMN	Cardinia-Notting Hill Main at Hallam Nth O/T	99% <1	15	1.7	4	6.8	7.6	0.15	0.05	0.6	1.2	0.15	0.150	0.12	0.08	0.08
SEW2	310, 311, 320, 321, 322, 330	ECARSOLD	Cardinia-Berwick Pipeline at Berwick Sth	99% <1	15	1.7	4	6.8	7.6	0.15	0.05	0.6	1.2	NM	NM	NM	NM	NM
SEW3	570-590, 610, 620	ESILWAV1	Silvan Waverley Pipeline at Mt Evelyn	99% <1	15	1.7	9	6.8	7.5	0.15	0.05	0.6	1.2	0.15	NM	NM	NM	NM
SEW4	570-590, 610, 620	ESILOLI1	Silvan Olinda P/L at Mt Evelyn	99% <1	15	1.7	9	6.8	7.8	0.15	0.05	NM	NM	0.15	0.150	0.12	0.08	0.08
SEW39	271,280, 270, 340, 350, 360, 370, 710 320, 321, 260, 300, 450, 410, 420	ETTPCWSO	Tarago Treatment Plant outlet	99% <1	15	1.0	10	6.8	7.6	0.15	0.05	0.6	1.2	0.10	0.150	0.12	0.08	0.08
SEW5	620	EWINSLRM	Winneke CWS Outlet Main	99% <1	15	0.5	3	6.8	7.7	0.15	0.05	0.6	1.2	0.10	NM	NM	NM	NM
SEW6	330	MBITPLPO	Bittern #2 Pipeline at Pearcedale O/T	98% <1	NA	1.7	5	6.8	8.0	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW7	350, 360, 370	MBITPLSB	Bittern Pipeline at Baxters Paddock	98% <1	NA	1.7	5	6.8	8.0	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW8	62	* MCFDCFPK	Waverley Main at Caulfield Park	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW9	430, 440	MDRO900D	Dromana 900 Detention Point	98% <1	N/A	2.2	4	6.8	7.7	0.15	0.05	0.6	1.2	0.10	0.150	0.12	0.08	0.08
SEW10	620	* MFOOTSOM	Footscray Pipeline at Somerville Road	98% <1	NA	0.8	6	6.8	8.0	0.15	0.05	NM	NM	NM	NM	NM	NM	NM

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	Water Quality Zone No	Monitoring Point Site Code	Description	<i>E.coli</i>	CT	Turbidity	Apparent Colour	pH		Iron	Manganese	Fluoride		Aluminium (Acid Soluble)	THMs	Chloro acetic Acid	Dichloro acetic Acid	Trichloro acetic Acid
				(org/100mL)	(min.mg/L)	(NTU)	Pt/Co	(unit) Lower Limit	(unit) Upper Limit	(mg/L)	(mg/L)	(mg/L) Lower Limit	(mg/L) Upper Limit	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SEW11	323, 390	MFSTDETP	Frankston Detention Point	98% <1	N/A	1.9	6	6.8	7.9	0.15	0.05	0.6	1.2	NM	0.150	0.12	0.08	0.08
SEW12	320, 330, 390, 400, 700	MFSTLANG	Cardinia-Frankston Pipeline at Lang. Bi-pits	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW13	390, 400	MFSTN01I	Frankston #1 Pipeline Inlet to Reservoir.	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW14	271	MGARDETP	Garfield Detention Point	98% <1	NA	0.8	3	6.8	7.6	0.15	0.05	0.6	1.2	0.10	0.150	0.12	0.08	0.08
SEW15	410, 420	MMORNDTP	Mornington Detention Point	98% <1	N/A	2.2	5	6.8	7.7	0.15	0.05	NM	NM	NM	0.150	0.12	0.08	0.08
SEW16	410	MMTEMPAD	Morn- Mt Eliza Pipeline Detention Point @ Padua	98% <1	N/A	2.4	5	6.8	7.7	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW17	290	MPAKDETP	Pakenham Detention Point	98% <1	NA	1.6	5	6.8	7.7	0.15	0.05	0.6	1.2	0.15	NM	NM	NM	NM
SEW18	610, 620	MPUNTSYR	Punt Rd Main at South Yarra	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW19	280	MTYNDETP	Tynong Detention Point	98% <1	NA	1.0	4	6.8	7.6	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW20	570, 580, 581	RBRNART1	Boronia Reservoir - Tap On Reservoir.	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW21	270	RBUNHET1	Bunyip H/L Tank Outlet	98% <1	NA	0.9	4	6.8	7.6	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW22	320, 321	RCRANET1	Cranbourne Tank Outlet	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW23	660	RDNDGIT1 RDNDGIT2	Dandenong Tank Inlet at PRS	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.150	0.12	0.08	0.08
SEW24	640, 650	RDNG1RT1	Dandenong Tank #1 Outlet	98% <1	NA	2.1	5	6.8	7.9	0.15	0.05	NM	NM	NM	NM	NM	NM	NM
SEW25	640, 650	RDNG2RT1	Dandenong Tank #2 Outlet	98% <1	NA	1.6	4	6.8	7.9	0.15	0.05	NM	NM	NM	NM	NM	NM	NM

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	Water Quality Zone No	Monitoring Point Site Code	Description	<i>E.coli</i>	CT	Turbidity	Apparent Colour	pH		Iron	Manganese	Fluoride		Aluminium (Acid Soluble)	THMs	Chloro acetic Acid	Dichloro acetic Acid	Trichloro acetic Acid
				(org/100mL)	(min.mg/L)	(NTU)	Pt/Co	(unit) Lower Limit	(unit) Upper Limit	(mg/L)	(mg/L)	(mg/L) Lower Limit	(mg/L) Upper Limit	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
SEW27	630		RHLMNRT1	Hallam Nth Reservoir Outlet	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW28	260, 300, 450		RKWRTET1	Koo Wee Rup Tower Outlet	98% <1	NA	1.2	4	6.8	7.6	0.15	0.05	NM	NM	0.10	NM	NM	NM
SEW29	580, 581		RMON1ET1	Montrose Reservoir #1 Outlet	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW30	660		RMTVWET1	Mount View Reservoir - Outlet	98% <1	NA	1.7	9	6.8	7.8	0.15	0.05	NM	NM	NM	NM	NM	NM
SEW31	670, 680, 690		RNTG1ET1	Notting Hill Reservoir # 1	98% <1	NA	1.9	5	6.8	8.0	0.15	0.05	NM	NM	NM	NM	NM	NM
SEW32	670, 680, 690		RNTG2ET1	Notting Hill Reservoir # 2	98% <1	NA	1.4	5	6.8	8.0	0.15	0.05	NM	NM	NM	NM	NM	NM
SEW33	610, 620	*	RPRESET1	Preston Reservoir combined Outlet	98% <1	NA	0.6	3	6.8	7.6	0.15	0.05	NM	NM	0.10	0.150	0.12	0.08
SEW34	340, 350, 360, 370, 710		RTYABSTO	Tyabb Storage Outlet	98% <1	NA	1.5	5	6.8	8.0	0.15	0.05	NM	NM	0.10	NM	NM	NM
SEW35	590		RWAN1RT1	Wantirna Reservoir #1	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW36	590		RWAN2RT1	Wantirna Reservoir #2	98% <1	NA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SEW37	610		RWAVYET1	Mt Waverley Reservoir 900 Outlet	98% <1	NA	1.6	10	6.8	7.9	0.15	0.05	0.6	1.2	NM	0.150	0.12	0.08
SEW38	610		RWAVYET2	Mt Waverley Reservoir 1150 Outlet	98% <1	NA	2.1	10	6.8	7.9	0.15	0.05	0.6	1.2	NM	NM	NM	NM

* Sites that could be affected by Winneke Maximisation

Notes:

1. CT values only apply to the entry points for primary chlorinators.
2. For Turbidity, Apparant Colour, pH, Iron, Manganese, Fluoride, Aluminium, THMs and chloroacetic acids the Standards are the same as the action Levels.
3. For *E.coli* MW will action all detections
4. NA - Not Applicable
5. NM - Not Monitored
6. Historical performance standards are based on the results achieved for the period July 2001 to June 2004.
7. M - Monitored and reported to RC with no BWSA standard set

AMENDMENTS TO PART C

DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
10 Sep 1999	RCOW1RT1 RCOW2RT1	MCOWDTP1	-	New chlorination plant installed at Cowies Hill with the monitoring of the water entering the zone being at the new detention point after chlorination.
1 Jul 1999	EWINSLRM	-	Value for pH changed from 7.5 to NA	This parameter is measured prior to the addition of fluoride and is not indicative of the finished water entering the distribution system (see below). All other parameters still apply.
1 Jul 1999	MWPMRSC H	Added to table	All Phys / chem parameters pH	This site is measuring the phys chem parameters after all chemical addition and is to be used in addition to EWINSLRM for all the phys / chem quality of water entering the distribution from Winneke Treatment Plant. Values are based on historical results.
1 Jul 1999	MFOOTSUM	MFOOTSOM	-	Correction of spelling
1 Aug 1999	RSALBET1	MSALEAST MSALWEST	-	New chlorination plants installed at the outlets from the St Albans tanks and monitoring is being carried out at the detention points downstream of the plants after chlorination
1 Aug 1999	MSALEAST MSALWEST	-	Value for fluoride changed from "NM" to "0.7 - 1.2"	Fluoride is being monitored at these locations and the compliance figure has been added to the table
1 Aug 1999	MSALEAST	-	Value for THM changed from "NM" to "150"	THM's are being monitored at this location and the compliance figure has been added to the table
1 Oct 1999	RYURKRT1	EYURKDTP	-	New "Entry Point" established for the Greenvale Yuroke system with increased monitoring and entry point compliance. This site is a replacement for RYURKRT1

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DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
1 Jul 1999	-	-	THM heading in Table - change the units from mg/L to µg/L	Correction of units to match the values reported in table
30 Aug 2004			THM heading in Table - change the units from µg/L to mg/L	Correction of units to match the reporting requirements for DHS and ESC
30 Aug 2004	All		Value for THM changed from "150" to "0.150"	Correction of values to match the reporting requirements for DHS and ESC
30 Aug 2004	All		Addition of a minimum pH value column	The requirement of having a minimum pH level in the BWSA
30 Aug 2004	-	-	Addition of Chloroacetic acid standards to the table	Chloroacetic acids are proposed to be a compliance parameter in the draft new Safe Drinking Water Regulations (SDWR) and are added to BWSA to complement Retail Companies compliance
30 Aug 2004	-	-	Addition of aluminium standard to the table	Aluminium is now proposed to be a compliance parameter in the new Safe Drinking Water Regulations and is added to BWSA to compliment Retail Companies compliance and show compliance at Entry Points where aluminium salts are used for treatment.
30 Aug 2004	-	-	Ct requirement figure changed from 3 to 15	To comply with requirements of the ADWG as outlined in Part A above.
30 Aug 2004	-	-	Turbidity standards changed for some sites	New turbidity standards based on the 95 % UCL of the mean for the last three years with the worst performing year's figure chosen
30 Aug 2004	-	-	Colour standards	New colour standards based on the 95 % UCL of the mean for the last three years

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DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
			changed for some sites	with the worst performing year's figure chosen
30 Aug 2004	All	-	Compliance for <i>E.coli</i> changed from 95% <1 to 99% <1	To reflect proposed requirements of new Drinking Water Regulations and performance over the last three years.
30 Aug 2004	All	-	Total coliform compliance removed	No longer a compliance parameter in the draft ADWG nor proposed in the draft SDWR and will be retained as an operational parameter
30 Aug 2004	All	-	Columns for comparisons against previous year of pre 95 compliance removed and minimum health requirement	No longer considered relevant
1 Jul 2005	EDRO900D EGARDETP EPAKDETP ETYNDETP EKWRTET1	MDRO900D MGARDETP MPAKDETP MTYNDETP RKWRTET1	Sitecode changed from "E" - Entry point to "M" or "R" - Monitoring point	The covering and lining of basins and replacement tanks has resulted in these sites no longer being primary disinfection points and the first entry point to the distribution
30 May 2006	All		Chloroacetic standard changed from 0.15 to 0.12 mg/L	Revised standard after release of the Safe Drinking Water Regulations
30 May 2006	All		Dichloroacetic standard changed from 0.10 to 0.08 mg/L	Revised standard after release of the Safe Drinking Water Regulations
30 May 2006	All		Trichloroacetic standard changed	Revised standard after release of the Safe Drinking Water Regulations

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DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
			from 0.10 to 0.08 mg/L	
1 Jul 2006	EFSTDETP EFSTDTKO EMORNDTP EMTEMPAD	MFSTDETP RFSTDTKO MMORNDTP MMTEMPAD	Sitecode changed from "E" - Entry point to "M" or "R" - Monitoring point	The covering and lining of basins and replacement tanks has resulted in these sites no longer being primary disinfection points and the first entry point to the distribution
01 Feb 2007	EGVLKENY EYURKDTP ESILWAV1 ESILOLI1 ESILPRE1	-	Aluminium standard changed from 0.1 mg/L to 0.15 mg/L	These sites are not from sources where water is treated with aluminium-based chemicals
01 Feb 2007	EWINSLRM		Fluoride standards changed to 0.7 - 1.2 from NM	The Fluoride addition now occurs at Winneke rather than Research
01 Feb 2007	EWINSLRM		Value of maximum pH changed from 7.9 to 7.7	The value is changed to that previously measured at Research and represents the water after pH correction and the addition of fluoride
11-Aug-2008	All	-	Changed zone numbers to reflect new zone numbering system	Zone names and numbers have been changed as part of Victorian drinking water regulations.
11- Aug-2008	MDBMTMD P	-	Deleted from schedules	Site and plant no longer operational
17-Apr-2009	All		Fluoride standard changed to 0.6 - 1.2 mg/l	Updated to reflect new Fluoride regulations

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DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
17-Apr-2009	ETARTPOL		All	Added new entry point for the introduction of the Tarago Treatment Plant to the distribution system
17-Apr-2009	MGARDTP RKWRTET1 RTYABSTO MDRO900D		Changed or added aluminium standard (0.10 mg/l)	These sites will now be from a source where aluminium based chemicals have been added.
17-Apr-2009	MMTMEPA D		Colour standard changed from 3 to 5	To make this site comparable to the Mornington site that has longer historical data
01-Jun-2009	All Monitoring points "M" and "R" sites		E.Coli compliance changed from 99% <1 to <98% <1	To bring the compliance into line with ADWG and SDWR
01-Jun-2009	RFSTDTKO	Removed		Site no longer monitored with the introduction of the Frankston Tank

SCHEDULE 4

DIRECT CONNECTIONS

PART A – ARRANGEMENTS BETWEEN MW AND SEWL

1. INTERPRETATION

The following definitions apply in this Schedule.

"**customer**" means a customer of SEWL supplied from a direct connection point.

"**direct connection point**" means:

- (a) in relation to any part of a MW pipeline, the downstream flange of the first valve on the offtake from that pipeline, to which a temporary trunk service is connected; or
- (b) in relation to a MW aqueduct:
 - (i) the downstream flange of the first valve on the temporary trunk service downstream of the exterior of the wall or embankment of the aqueduct; or
 - (ii) the aqueduct property boundary if there is no valve between the aqueduct and that boundary; or
- (c) in any other case, a point determined by MW.

"**temporary trunk service** " means the pipe from MW's pipeline, aqueduct or other source of water to SEWL's meter assembly or, where no meter is fitted, the stop-tap near the boundary of SEWL's customer's premises, and any fixtures attached to that pipe.

2. APPLICATION OF SCHEDULE

This Schedule applies, in addition to the provisions of sub-clause 15.2, to all premises and SEWL customers referred to in paragraph 15.2(a).

3. MW'S RIGHTS AND OBLIGATIONS

3.1 To maintain supply

- (a) MW must take all reasonable action to maintain a rate of flow at each direct connection point sufficient to provide an adequate supply to SEWL's customer, under normal operating conditions.
- (b) Item (a) does not require MW to supply water of any particular volume, or at any particular pressure.

3.2 Water Quality Obligations

- (a) Paragraph 10.1(a) applies to water supplied by MW under this Schedule only if the parties have agreed that MW can meet the requirements of that paragraph without incurring additional costs.
- (b) Paragraph 10.1(a) does not apply to water supplied by MW under this Schedule if:
 - (i) although the water has been disinfected, MW would be required to incur additional costs to meet the requirements of that paragraph; or
 - (ii) the water has not been disinfected, or is supplied from an open aqueduct or open storage

3.3 Maintenance obligation

MW is not required to maintain any temporary trunk service.

3.4 Inspection obligations

MW must regularly inspect, and advise SEWL in writing of any faults in, a temporary trunk service supplying water from an aqueduct upstream of a direct connection point.

3.5 Unplanned interruptions

MW must restore any unplanned alteration or interruption to a supply of water at a direct connection point, as soon as is practicable after the alteration or interruption occurs.

3.6 Emergency entry on land

Before MW exercises its power under section 96 of the *Melbourne and Metropolitan Board of Works Act 1958* to enter the land of an SEWL customer supplied under sub-clause 15.2 in an emergency, MW must, wherever possible, inform both SEWL and the customer.

3.7 Power to terminate supply

- (a) MW may terminate a supply of water to a direct connection point after giving SEWL 12 months' notice to SEWL and SEWL's customer of its intention to do so.
- (b) If MW terminates a supply of water without complying with item (a), MW must supply the relevant SEWL customer with an alternative supply of water of comparable pressure, volume and quality to the terminated supply:
 - (i) if no notice has been given before the supply is terminated, for 12 months after the supply is terminated; or
 - (ii) if notice has been given, but the supply is terminated before 12 months has expired, for the balance of that period.
- (c) Item (a) only applies in respect of an existing customer if SEWL's agreement with the customer allows SEWL to terminate the supply of water to the customer after giving the customer 12 months' notice or less.

3.8 Indemnities

- (a) Subject to item (b), if MW fails to provide an alternative supply in accordance with item 3.7(b), it must indemnify SEWL and the relevant customer or consumer of water (each an "**indemnified person**") against, and must pay the amount of, all reasonable losses, liabilities and expenses incurred by the indemnified person directly or indirectly resulting from any failure of MW to give notice in accordance with item 3.7(b), except to the extent that the loss, liability or expense was incurred through an act or omission of the indemnified person.
- (b) Item (a) only applies in respect of an existing customer if SEWL's agreement with the customer allows SEWL to terminate the supply of water to the customer after giving the customer 12 months' notice or less.
- (c) Subject to item (d), MW will indemnify SEWL and the relevant customer or consumer of water (each an "**indemnified person**") against, and must pay the amount of one half of all reasonable losses, liabilities and expenses incurred by the indemnified person directly or indirectly resulting from the quality of water supplied by MW at a direct connection point, except to the extent that the loss, liability or expense was incurred through the act or omission of the indemnified person.
- (d) Item (b) only applies if:
 - (i) SEWL has entered into an agreement with the relevant customer containing terms of comparable effect to the terms set out in Part B; and
 - (ii) SEWL has included in every bill sent to the relevant customer a reminder that the quality and supply of water supplied is subject to the terms of the agreement referred to in item (i); and
 - (iii) SEWL has complied with paragraph 15.2(f) in respect of the relevant customer and premises.
- (e) Whenever SEWL has failed to comply with any requirement of paragraph (d) SEWL will indemnify MW and the relevant customer or consumer of water each an "indemnified person" against, and must pay the amount of one half of all reasonable losses, liabilities and expenses incurred by the indemnified person directly or indirectly resulting from the quality of water supplied by MW at a direct connection point, except to the extent that the loss, liability or expense was incurred through the act or omission of the indemnified person.

4. SEWL'S RIGHTS AND OBLIGATIONS

4.1 To enter into agreement with new owners

Whenever SEWL discovers that the ownership of any premises referred to in item 2 has changed, SEWL must enter into an agreement with the new owner of the premises containing terms of comparable effect to the terms set out in Part B.

4.2 To require customers to repair

Whenever MW notifies SEWL of a fault in a temporary trunk service under item 3.4, SEWL must require the relevant customer to repair the fault.

4.3 To operate MW's valves

SEWL may operate the first valve at or adjacent to a direct connection point:

- (a) when it is required to do so for the purposes of an agreement with a customer, after giving MW at least 7 days' notice of its intention to do so; and
- (b) in an emergency, but must advise MW that it has done so as soon as reasonably possible after operating the valve.

4.4 To calculate volumes

If, for any reason, SEWL has failed to install or read a meter in accordance with paragraph 15.2(h), or a meter is out of service or registering incorrectly for any part of a billing period, SEWL must:

- (a) estimate the volume of water supplied to the relevant customer in one of the ways prescribed by Regulation 317 of the Water Industry Regulations 1995; and
- (b) include that estimate in the next report given by SEWL to MW under paragraph 15.2(j)(i).

4.5 To notify MW of disconnection

SEWL must notify MW within 3 months after the supply to any premises referred to in item 2 is disconnected.

4.6 To disconnect supply

- (a) Whenever SEWL receives a notice from MW under item 3.8(a), SEWL must disconnect the relevant temporary trunk service at the direct connection point before the expiration of 12 months after the date of the notice.
- (b) MW may, by written notice to SEWL, require SEWL to disconnect a temporary trunk service connected at a direct connection point whenever MW reasonably considers that the direct connection point or related works have caused damage to MW's water supply works.
- (c) SEWL must promptly comply with any notice given under item (b).

4.7 To manage certain contact with Customers

SEWL must manage all necessary contacts with relevant customers with respect to interruptions of supply referred to in Part B, item 2.

5. **CHARGES**

5.1 **What an invoice must contain**

On receiving a report from SEWL under paragraph 15.2(j)(i), MW must invoice SEWL for such amount of the total volume of water set out in that report as has not been, or will not be, included in an invoice given under clause 22, at the usage charge from time to time set out in Schedule 5.

5.2 **When an invoice must be paid to MW**

SEWL must pay the full amount of any invoice given in accordance with item 5.1 within 7 days of receiving the invoice.

5.3 **Interest payable**

Sub-clause 23.4 applies to any amount not paid in accordance with item 5.2.

5.4 **Disputes about amounts payable**

Paragraphs 23.5(a), (d) and (e) apply to any dispute about an invoice given under item 5.2.

5.5 **Deductions and Set-offs not allowed**

Sub-clause 23.6 applies to any amount payable under items 5.2 or 5.3.

PART B – STANDARD CONDITIONS OF SUPPLY TO CUSTOMERS

1. **SUPPLY OF WATER**

- (a) SEWL will endeavour to ensure that MW takes all reasonable action to maintain a rate of flow at the direct connection point to provide an adequate supply to the Customer under normal operating conditions.
- (b) Item (a) does not require SEWL or MW to supply water:
 - (i) of any particular volume; or
 - (ii) of any particular quality; or
 - (iii) continuously.

[Insert the following clause in a customer's agreement whenever item 3.2(b) of Part A applies to the supply]

- (c) Water supplied under this agreement:
 - (i) has not been disinfected; and
 - (ii) is not either fit for the purpose of, or of a quality suitable for, human consumption (including for drinking or for handling or preparing food).

2. INTERRUPTIONS TO SUPPLY

- (a) The supply of water under this agreement may be altered or interrupted from time to time.
- (b) Whenever an alteration or interruption to supply is required by MW to construct, repair, maintain, commission or carry out flow tests on any part of MW's water supply system:
 - (i) SEWL must promptly notify the Customer upon receiving notice from MW of its intention to alter or interrupt the supply; and
 - (ii) MW will restore the supply at the direct connection point as soon as practicable.
- (c) Whenever an unplanned alteration or interruption to the supply of water by MW occurs, MW will restore the supply at the direct connection point as soon as practicable.

3. MAINTENANCE OBLIGATIONS

- (a) Subject to paragraph (c), the Customer must maintain:
 - (i) the temporary trunk service ; and
 - (ii) all plumbing works on the Customer's premises.
- (b) All maintenance work required under paragraph (a) must be undertaken by a registered plumber.
- (c) The Customer must obtain the written consent of MW before carrying out any maintenance under this clause on land belonging to MW.
- (d) SEWL may, by written notice to the Customer, require the Customer to repair, or carry out maintenance on, any works referred to in paragraph (a), within the time specified in the notice or any longer time allowed by SEWL.
- (e) If the Customer does not comply with the notice given under paragraph (d) within the time specified in the notice, or any longer time allowed by SEWL, SEWL may carry out the required repairs and recover its reasonable costs from the Customer.

4. TERMINATION OF SUPPLY

- (a) SEWL may terminate this agreement and any supply of water pursuant to this agreement:
 - (i) at any time, if MW gives SEWL notice that MW considers that the direct connection point or related works have caused damage to MW's water supply works; or

- (ii) at or near the expiration of a period of 12 months' notice given to the Customer by SEWL of MW's intention to terminate the supply of water to the direct connection point.
- (b) SEWL's obligation to supply water under this agreement terminates if MW terminates the supply of water to the direct connection point:
 - (i) without giving notice to SEWL under sub-paragraph (a)(ii); or
 - (ii) before the expiration of the period of any notice given under sub-paragraph (a)(ii).
- (c) If MW terminates the supply of water in the manner described in paragraph (b), MW has agreed with SEWL that MW will supply the customer with an alternative supply of water of comparable pressure, volume and quality to the terminated supply:
 - (i) if no notice has been given before the supply is terminated, for 12 months after the supply is terminated; or
 - (ii) if notice has been given, but the supply is terminated before 12 months has expired, for the balance of that period.
- (d) If MW fails to provide an alternative supply in accordance with paragraph (c), MW has agreed with SEWL that MW will indemnify the Customer against, and will pay the amount of, all reasonable losses, liabilities and expenses incurred by the Customer directly or indirectly resulting from any failure of MW to give notice in accordance with sub-paragraph (a)(ii), except to the extent that the loss, liability or expenses incurred through an act or omission of SEWL or the Customer.

5. **ACKNOWLEDGMENTS BY CUSTOMER**

The Customer acknowledges that:

- (a) a supply of water will only be available at the direct connection point when there is water available at sufficient pressure to provide a supply; and
- (b) a supply of water may not be available during peak demand periods or periods of restriction; and
- (c) if the Customer requires a continuous supply of water, the Customer must provide a storage on the Customer's premises of sufficient capacity to ensure a continuous supply for the Customer's requirements;
- (d) neither SEWL nor MW has made any representation to the Customer in relation to the volume, pressure, quality or continuity of any water supplied under this agreement; and
- (e) the Customer has not relied on any such representation in entering to this agreement and will not rely on any such representation during the course of this agreement.

SCHEDULE 5

CHARGES

The *Bulk Water Charges* as set out in the Melbourne Metropolitan Water, Wastewater and Drainage Services Pricing Order that is in effect from time to time.

SCHEDULE 6

FORMULAE FOR DETERMINING WATER SUPPLIED TO SEWL

1. The volume of water supplied by MW to SEWL in any period is determined by the formula:

$$V = I - D$$

Where:

V is the volume supplied for that period.

I is the sum of the metered inflows for that period at each Billing Point described in Table A.

D is the sum of the metered outflows for that period at each Billing Point described in Table B.

2. For the purposes of item 1, metered inflows and metered outflows are determined by reference to:
 - (a) readings from each Billing Meter recorded by MWC's SCADA System
 - (b) the macro models for the ITN System.
3. Until 1 April 2000 or such other date as the parties agree, MW will further adjust the volumes determined under this Schedule by deducting the monthly metered volume of water supplied to Transfield-Obayashi in Batman Avenue, downstream of Billing Meter FE3008.

TABLE A

METERED INFLOWS

Billing Meter	SOURCE CALL UPS
Cardinia Res 1700 Outlet	WC2.A1
Cardinia Res 1400 Outlet	WC2.A4
Silvan – Waverley Main No 1 d/s Faults	WG270.A1
Silvan – Waverley Main No 2 d/s Faults	WG270.A2
Waverley Reservoir – Notting Hill	WR17.A11
East Bittern P/S to Peninsula Zone	WH100.A14
Tarago Res – Peninsula Zone	WH120.A1
Hoddle Bridge, City West to South	WG331.A11

Billing Meter	SOURCE CALL UPS
East	
Queens Bridge, City West to South East	WG332.A10
Grimes Bridge, City West to South East	WG333.A10
Morell Bridge, City West to South East	WG331.A13
Mt View to Cardinia Sub Zone	WG129.A2
Princess Hwy at Springvale Road	WG3049.A1
Police Road at Wanda Street	WG3050.A1
Police Road at Hansworth Street (South Flow)	WG3051.A1
Jacksons Road at Police Road	WG3052.A1
Police Road at Baron Court	WG3053.A1
Colchester Road at Dandenong Creek	WG3057.A1
Huntingdale Road PRV WB3	WG410.A1
Macrina Street PRV WB7	WG411.A1
North Rd east of Clayton Road and PRV WB55	WG3046.A1
Toorak Rd at Kooyong Rd	WG3042.A1
Malvern Rd at Kooyong Rd	WG3043.A1
Dandenong Rd at Glenferrie Rd	WG3044.A1
Dandenong Rd at Warrigal Rd	WG3045.A1
North Rd at Princess Hwy	WG3047.A1
Princess Hwy at McNaughton Rd	WG3048.A1
Inkerman Rd at Park Cres	WG3081.A1
Queens Ave at Princess Hwy	WG3082.A1
Dromana Reservoir Outlet	WQD51.A1
Range Rd to Mt Martha	WQD50.A1
Tarago Treatment Plant	To Be Advised

TABLE B

METERED OUTFLOWS

Billing Meter	SOURCE CALL UPS
Notting Hill - Waverley Reservoir	WR17.A12
Cardinia Inlet to Bittern Reservoir	WH100.A102 = WH100.A2 + WH100.A3
Cardinia to Mt View (Bakers Road) Flow	WG129.A3
Hoddle Bridge, South East to City West	WG331.A10
Queens Bridge, South East to City West	WG332.A11
Grimes Bridge, South East to City West	WG333.A11
Morell Bridge, South East to City West	WG331.A12
Police Road at Hansworth Street (North Flow)	WG3051.A2
Harcourt Ave at Punt Rd	WG3040.A1
Dandenong Rd at Glenferrie Rd	WG3044.A2
Bayswater Road at Dandenong Creek	WG3055.A1
Dorset Road at Dandenong Creek	WG3056.A1
Silvan - Waverley at Gallaghers Rd PS	WG3065.A1
Montrose Reservoir Outlet	WR11.A3
Adjustments	
Change in Cardinia Zone Storage	WR4.A103 + WR17.A101 + WR48.A100
Change in Peninsula Zone Storage	WR141.A100 + WR142.A100 + WR143.A100 + WR144.A100 + WR167.A100
Waste by MWC within South East	

SCHEDULE 7

MW'S QUALITY MANAGEMENT SYSTEM FOR DRINKING WATER QUALITY

1. ACCREDITED STANDARDS

- (a) MW must:
 - (i) manage all public health and environmental risks associated with providing the Water Supply Services in accordance with Australian Standard AS 4360; and
 - (ii) within two years after the date on which this agreement commences obtain ISO 14001 accreditation to Australian Standards for MW's Environmental Management System; and
 - (iii) produce a documented Quality Management System for Drinking Water Quality, to comply with International Standard AS/NZ ISO 9001; and
 - (iv) use its best endeavours to have the Quality Management System for Drinking Water Quality certified as complying with the standard referred to in item (iii) within two years after this agreement commences.
- (b) The Quality Management System for Drinking Water Quality must:
 - (i) establish procedures and systems for managing any risk that water harvested, stored, transported or treated by MW under this agreement may cause either party not to comply with either:
 - (A) any performance standard concerning water quality under this agreement; or
 - (B) any obligation imposed by or under any Act; and
 - (ii) be certified by an independent auditor accredited by JAS/ANZ.

2. RISK ASSESSMENT

2.1 MW Risks

- (a) MW must assess all relevant risks associated with providing the Water Supply Services arising at a trial location selected by MW by employing methods comparable to a Hazard Analysis and Critical Control Point evaluation.
- (b) MW must commence the assessment referred to in item (a) within four months and use its best endeavours to complete it within 12 months, after this agreement commences.

- (c) If MW determines that the methods of assessment employed under item (a) are successful, it must assess all relevant risks associated with providing the Water Supply Services arising in all parts of MW's water supply system, by employing those methods.
- (d) MW must use its best endeavours to complete the assessment referred to in item (c) within 24 months after this agreement commences.

2.2 SEWL's Risks

- (a) SEWL must assess all relevant risks arising in SEWL's water supply system from an Interface Point to the point at which water is supplied to customers, by employing methods referred to in item 2.1(a).
- (b) SEWL must commence the assessment referred to in item (a) within three months, and use its best endeavours to complete it within 24 months, after this agreement commences.

2.3 Obligation to co-ordinate activities

To ensure that any risk to the quality of drinking water is effectively managed in the water supply system of both parties, each party must co-operate with the other to ensure that:

- (a) the assessments referred to in items 2.1 and 2.2; and
- (b) the plans and activities of each of them to implement the finding of those assessments,

are complementary and co-ordinated.

3. MW'S QUALITY MANAGEMENT SYSTEM FOR DRINKING WATER QUALITY

- (a) MW must, whenever appropriate, implement the findings of the assessments referred to in items 2.1 and 2.2 through its Quality Management System for Drinking Water Quality.
- (b) MW's Quality Management System for Drinking Water Quality must also set out practices, procedures and rules to be followed by MW, with respect to:
 - (i) catchment management;
 - (ii) operations affecting water quality (including operating and maintaining open channels, aqueducts and other open water sources, controlling reservoir levels, determining flow rates, reversing flows and changing sources from which Licensees are supplied);
 - (iii) ensuring the accuracy and reliability of monitoring and measuring water quality;
 - (iv) cleaning and maintaining water mains and tanks;
 - (v) filtering water;

- (vi) disinfecting water;
- (vii) real time monitoring and reporting of water quality;
- (viii) testing water for microbiological and other indicators of water quality;
- (ix) reporting the results of water quality monitoring against guidelines and standards agreed by the parties;
- (x) water quality, incorporated in MW's Emergency Response Plan;
- (xi) water quality, as set out in the Co-ordinated Crisis Management Plan referred to in paragraph 14.2(b);
- (xii) monitoring and reporting on pressures and flows, as they affect water quality;
- (xiii) other matters determined by MW.

4. AUDIT OF MW'S QUALITY MANAGEMENT SYSTEM FOR DRINKING WATER QUALITY

- (a) MW may, from time to time, audit MW's compliance with its Quality Management System for Drinking Water Quality
- (b) MW must promptly give SEWL a management summary report of any audit referred to in paragraph (a).
- (c) The parties must, at intervals of not more than two years, commission an independent audit of MW's compliance with MW's Quality Management System for Drinking Water Quality.
- (d) The parties must:
 - (i) agree on the terms of reference for and the person to undertake, an audit under paragraph (c); and
 - (ii) meet the costs of the audit in equal shares.
- (e) MW must co-operate with, and give all reasonable assistance to, an independent auditor appointed under paragraph (c).
- (f) MW must, within 60 days of receiving the auditor's report, determine whether to accept any or all of the findings and recommendations in the report and when and how it will act on those findings or implement those recommendations.
- (g) MW must:
 - (i) as soon as practicable and within 60 days of receiving the auditor's report, report to SEWL on each matter determined under paragraph (f); and

- (ii) if it determines not to accept any finding or recommendation in the report, set out in the report referred to in sub-paragraph (i) that finding or recommendation and MW's reasons for not accepting it.

5. REVIEW OF MW's QUALITY MANAGEMENT SYSTEM FOR DRINKING WATER QUALITY AND RISK ASSESSMENT

- (a) MW may, from time to time, after consulting SEWL, alter its Quality Management System for Drinking Water Quality to improve the method of managing, or reduce the cost to the community of managing, risks associated with the management of water quality from the harvesting process to the asset interface Point.
- (b) The parties must review, and, if appropriate, amend MW's Quality Management System for Drinking Water Quality in accordance with this clause.
- (c) Within 24 months after the commencement of this agreement the parties must jointly review MW's Quality Management System for Drinking Water Quality to ensure that the risk assessment procedures referred to in item 2.1 are properly included in that System.
- (d) Thereafter, the parties must:
 - (i) conduct a review at intervals of not more than two years; and
 - (ii) prepare mutually acceptable terms of reference for a review; and
 - (iii) appoint either:
 - (A) an independent reviewer; or
 - (B) a team with members nominated by each party and each other Licensee,to conduct the review.
- (e) Unless the parties agree otherwise, terms of reference referred to in sub-paragraph (d)(ii) must require the reviewer to:
 - (i) review MW's assessment of all relevant risks associated with the production of safe water from the catchment to Asset Interface Point, by employing methods comparable to a Hazard Analysis Critical Control Point evaluation; and
 - (ii) review the extent to which MW has identified critical control points within the meaning of the evaluation method referred to in sub-paragraph (i); and
 - (iii) determine what actions, works or measures have been or should be undertaken by MW to manage the relevant risk at each critical control point; and
 - (iv) the method for ranking relevant risks to be applied by MW; and

- (v) recommend such changes to MW's Quality Management System for Water Quality as the auditor considers appropriate; and
 - (vi) examine and report upon such other matters as the parties determine; and
 - (vii) report to MW and SEWL upon those matters and recommendations.
- (f) MW must meet the cost of each review.
- (g) Each party must co-operate with, and give all reasonable assistance to, an independent reviewer or review team appointed under sub-paragraph (c)(ii).
- (h) MW must, within 60 days of receiving the report of a review, determine whether to accept any or all of the findings and recommendations in the report and when and how it will act on those findings or implement those recommendations.
- (i) MW must:
- (i) as soon as practicable and within 60 days of receiving the reviewer's report, report to SEWL on each matter determined under paragraph (g); and
 - (ii) if it determines not to accept any finding or recommendation in the report, set out in the report referred to in sub-paragraph (i) that finding or recommendation and MW's reasons for not accepting it.

6. DOCUMENTS

MW must promptly give SEWL a copy of its Water Quality Management System for Drinking Water Quality when it has been prepared and thereafter whenever it is amended.

SCHEDULE 8 PROTOCOLS

8.1 Protocol for working at a 'Shared Site' involving South East Water and Melbourne Water

1. Principles

There are a number of sites within the South East Water Limited (SEWL) license area upon which there are both Melbourne Water Corporation (MWC) and SEWL assets. These are termed 'shared' sites and include pipe work, valves, buildings, electrical wiring, telemetry and/or instrumentation belonging to each party.

Whilst the Bulk Water Supply Agreement (1999) obligates each party to notify the other party of temporary alterations or interruptions to Water Supply Services (CI 14.5) resulting from planned works, it is silent on notification for planned works which do not alter or interrupt supply. These works may in some cases represent an operational and/or safety risk to the other party. Currently MWC and SEW undertake to forward a Notification of Works (NOW) form to the other party at least 7 days prior to commencing works, for any works which may impact on the other party.

The present system has worked well for one off planned works/upgrades etc. however has been deficient for routine works by contractors eg. maintenance by electricians /instrumentation technicians.

SEWL and MWC are committed to ensure that any works within a shared site are undertaken safely, effectively and are in accordance with legislative requirements and guidelines.

A review has been undertaken of existing arrangements for working on shared sites, by water supply operations representatives from MWC and SEWL and this protocol formalises the revised arrangements.

2. Purpose

The purpose of this protocol is to outline:

- (a) Communication between SEWL and MWC, relating to working within shared sites with particular emphasis on electrical contractors working on or in the vicinity of electrical wiring, telemetry and/or instrumentation;
- (b) Communication of safety issues at shared sites; and
- (c) Emergency response actions.

Communication

Communication between MWC and SEWL will be through the nominated representatives in the Protocol. Contact numbers for respective representatives will be exchanged via the weekly after hours availability list.

3. Notification Procedure for Planned Works/Upgrades (excluding routine electrical and instrumentation maintenance).

Both parties acknowledge that where either party is planning new works/upgrades on shared sites there is potential to impact on the other parties assets. MWC and SEWL will coordinate notification of such works and seek authorisation through the MWC Operations and SEWL Field Services Divisions. Notification shall be via a Notification of Works (NOW) form to the other party at least 7 days prior to works commencing or unless agreed otherwise.

4. Notification Procedure for Contract Maintenance (involving electrical/telemetry/instrumentation)

Both parties will adopt a procedure for ensuring that contractors notify the other party of works on shared sites, and that the contractors are made aware of any risks relating to the works being undertaken. A list of designated shared sites is shown below.

5. List of 'Shared Site'

The following list of 'Shared Sites' has been compiled by representatives from MWC and SEWL's Field Services and are typically those sites where there is:

- common electricity/telemetry on site; or
- separate assets/instrumentation in a shared compound/building/facility in close proximity to each other.

MWC Asset	SEWL Asset
<i>Aqueduct Rd (Langwarrin) PRS WB190, Langwarrin Bi Pit WB171, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Aqueduct Rd PS, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Bittern Basin Disinfection Plant WQD45, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Bittern Basin, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Boronia Res WR37, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Boronia PS, Pipework, Electricity, Telemetry & Instrumentation.</i>

<i>Level Control, Electricity, Telemetry & Instrumentation.</i>	<i>Mt Martha Break Pressure Pit, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Bunyip HL Disinfection Plant WQD65, Bunyip HL PH Plant WQP65, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Bunyip HL Tanks, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Cranbourne Res WR167, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Res Outlet Pipework & Electricity, Telemetry & Instrumentation.</i>
<i>Dromana Res WR141, Dromana Disinfection Plant WQD51, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Dromana PS, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Frankston Res WH142, Frankston PS Disinfection Plant WQD53, Frankston Town Main Disinfection Plant WQD52, Sth Frankston Disinfection Plant, Pipework, Electricity, Telemetry & Instrumentation.(Frankston Tank)</i>	<i>Frankston PS, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Koo Wee Rup Disinfection Plant WQD61, Koo Wee Rup PH Plant WQP61, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Koo Wee Rup LL Tank & PS, Koo Wee Rup HL Tank, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Mornington Res WR143, Mornington Pumps Disinfection Plant WQD58, Mornington Town Main Disinfection Plant WQD57, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Mornington PS, Mornington East PRS, Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Narre Warren (Inglis Rd) PRS, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Pipework, Electricity, Telemetry & Instrumentation.</i>
<i>Pakenham No 2 Res WR148, (Pakenham Tank), Pakenham Disinfection Plant, Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Pipework, (Future Pump, Electricity, Telemetry & Instrumentation)</i>
<i>Range Rd Disinfection Plant WQD50,</i>	<i>Pipework, Electricity, Telemetry &</i>

<i>Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Instrumentation</i>
<i>Somers – Flinders Disinfection Plant WQD68, Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Electricity, Telemetry & Instrumentation</i>
<i>Tynong Res WR146, Tynong Disinfection Plant WQD68, Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Booster Pump, Generator, Electricity, Telemetry & Instrumentation</i>
<i>Wantirna Res WR38, Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Wantrina PRS WB50, Pipework, Electricity, Telemetry & Instrumentation</i>
<i>Westernport Disinfection Plant WQD49, Pipework, Electricity, Telemetry & Instrumentation</i>	<i>Westernport Basin, Pipework, Electricity, Telemetry & Instrumentation</i>
<i>Hallam Nth PRS, Pipework, Electricity, Telemetry & Instrumentation.</i>	<i>Pipework, Electricity, Telemetry & Instrumentation.</i>

8.2 Protocol for Notification of Changes to Disinfection Setpoints between South East Water and Melbourne Water

1. Principles

Melbourne Water is responsible for the disinfection of bulk water supplied to the retail water companies.

As the operator of all Primary Disinfection Plants and some Secondary Disinfection Plants, Melbourne Water is required to adjust disinfection setpoints from time to time.

The Bulk Water Supply Agreement (BWSA 1999) sets out Melbourne Water's obligations relating to Primary Disinfection setpoint changes. Melbourne Water acknowledges that any changes to disinfection setpoints whether they be Primary or Secondary plants can potentially impact on South East Water's customers and compliance with South East Water's licence requirements.

Melbourne Water and South East Water also acknowledge that there is a need to optimise setpoints to achieve a balance between customer satisfaction and microbiological compliance. The primary considerations in changing setpoints will be the health of retail water company customers and maintaining compliance with operating licence requirements and water quality guidelines.

2. Purpose

The purpose of this protocol is to clarify notification procedures for disinfection setpoint changes in consideration of the above and to achieve a consistent approach across the Melbourne Water system.

3. Minimum Setpoints for Primary Disinfection Plants supplying South East Water Customers.

In accordance with Clause 10.1 (b) of the BWSA 1999, Melbourne Water will not drop below the following minimum setpoints without prior written consent from South East Water's Operating Representative. Current setpoints are shown in the monthly customer report.

Primary Disinfection Plant	Min. Setpoint
Cardinia 1700 main	0.65
Cardinia 1400 main	0.65
Silvan Preston	1.00
Silvan Waverley	1.00
Westernport	0.60
Dromana	1.00

Frankston Gravity	0.60
Frankston Pumps	0.60
Mornington Gravity	0.70
Mornington Pumps	1.00
Tarago *	None set

* Seasonal or emergency primary disinfection only

4. Notification of Setpoint Changes for Primary and Secondary Disinfection Plants supplying South East Water Customers.

- No notification required.

Disinfection Setpoints which will be increased or decreased from time to time by Melbourne Water without notification to South East Water (due to their being no impact on South East Water).

Winneke Yan Yean Treatment Plant Silvan Olinda
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- Notification to and approval from South East Water.

Disinfection Setpoints which will be increased or decreased from time to time by Melbourne Water only after a notification of works form has been forwarded and countersigned by South East Water. South East Water or Melbourne Water shall indicate on the notification of works form the proposed duration of the new setpoint.

Cardinia 1400 main Westernport Dromana Frankston Gravity Frankston Pumps Mornington Gravity Mornington Pumps Tynong Basin (Secondary Disinfection) Garfield Basin (Secondary Disinfection) Range Road * (Secondary Disinfection) Tarago * Somers Flinders (Secondary Disinfection) Bittern Basin (Secondary Disinfection) Koo Wee Rup (Secondary Disinfection) Bunyip (A'Beckett Rd) Offtake (Secondary Disinfection)

Pakenham (Secondary Disinfection) Tynong Offtake (Secondary Disinfection) Garfield Offtake (Secondary Disinfection)

* Seasonal or emergency primary disinfection only

- Notification and approval from South East Water and other affected Retailers.

Disinfection Setpoints which will be increased or decreased from time to time by Melbourne Water only after a notification of works form has been forwarded and countersigned by all affected retail water companies. The requesting retail water company or Melbourne Water shall indicate on the notification of works form the proposed duration of the new setpoint. In addition, the requesting (or countersigning) retail water company shall state the basis on which the requested change (or countersignature) to set point is made, in terms of its health related, operating licence or drinking water quality guideline requirements or targets. In each case the health of retail water company customers will be the primary consideration (followed by maintaining compliance with operating licence requirements and water quality guidelines) in changing the setpoint. In the event that a countersigned notification of works form is not returned to Melbourne Water within 3 working days of having been received and acknowledged by the retail water company, it will be assumed that the retail water company agrees with the intent of the notification of works form unless they advise otherwise.

Cardinia 1700 main (SEW,YVW) Silvan Preston (SEW,YVW,CWW) Silvan Waverley (SEW,YVW)

8.3 Protocol for Installing, Maintaining, Operating, Reading and Testing Bulk Water Billing meters between South East Water and Melbourne Water

1. Principles

Melbourne Water Corporation (MWC) is responsible for the measurement of Bulk Water supplied to South East Water Limited (SEWL) and is the owner and manager of all Bulk Water Billing meters.

The Bulk Water Supply Agreement (BWSA 1999) sets out MWC's obligations relating to Bulk Water Billing meters. Under Clause 24.6, MWC and SEWL must adopt and implement a protocol for installing, maintaining, operating, reading and testing of Billing meters.

The parties acknowledge the high degree of importance of accurately measuring the volume of bulk water and that there is a transparent and auditable management system for the billing meters.

2. Purpose

The purpose of this protocol is to outline the objectives and key elements of MWC's management system for bulk water billing meters to ensure a high degree of accuracy associated with the bulk water volumes purchased by SEWL.

3. Installation.

The location of new billing meters will be agreed between the Principal Representatives.

New billing meters will be installed to the manufacturers specification to achieve a volumetric accuracy of $\pm 1\%$ or better at the meter and will be the following types unless agreed otherwise:

For pipe diameters 750mm and above, meters will be dual track transit time ultrasonics installed under dry main conditions.

For pipe diameters 600mm and below, meters will be full bore electromagnetic meters.

New billing meters are to have a minimum clearance of 10 pipe diameters upstream and 5 pipe diameters downstream

As constructed drawings of the new meters and associated works will be forwarded to SEWL at the completion of the installation project.

New billing meters will be included in the Formulae for Determining Water Supplied to SEWL (Ref. Schedule 6 BWSA 1999) from a date agreed between the Principal Representatives, in a variation to the BWSA 1999.

Information relating to all Billing meters will be included in MWC's asset management database (Hansen).

Meters will be self diagnostic with respect to electronic malfunctions. Any drift outside the manufacturers tolerances will be detectable on routine checking of the meter.

4. Routine Checks

Billing meters will be managed under MWC's Asset Management System (Hansen). Checking and maintenance will be carried out by MWC. Work procedures relating to billing meters will be documented and auditable and all equipment used to check the billing meters shall be tested by equipment with a traceability certificate to a NATA certified laboratory. The following checks will be undertaken as part of a routine program:

- Electronic Calibration/Simulation

The electronic signal from the billing meter will undergo routine checks (termed electronic calibration/simulations). An auditable record of each check will be kept by MWC and provided on request to SEWL. Routine calibration/simulations will be undertaken at the following frequencies:

For meters measuring an average flow of 3 MI/d or less	- 12monthly
For meters measuring an average flow of 3 to 50 MI/d	- 6monthly
For meters measuring an average flow of more than 50 MI/d	- 3monthly

A rolling 12 month summary of results from electronic calibration/simulation will be included in the monthly customer report to SEWL. Where an electronic signal has drifted resulting in a volumetric difference outside of a $\pm 1\%$ tolerance, it shall be reported separately in the monthly Customer Report.

- Self Diagnosis Checks

The self diagnostic output from the meter will be checked (where the facility for testing exists) during each routine visit. Any parameters outside tolerance will be reported to the manufacturer for advice.

- Telemetry Performance Checks

During the routine electronic simulation a telemetry check will be made on the electronic signal transmitted on site with the electronic signal received by the telemetry system at the Water Operations Control Centre at Preston. An auditable record of each telemetry check will be kept by MWC and provided on request to SEWL. Where a telemetry check indicates a discrepancy resulting in a volumetric difference outside of a $\pm 1\%$ tolerance it shall be reported separately in the monthly Customer Report.

- **Volumetric/Velocity Checks**

MWC, in conjunction with SEWL, will identify and trial viable volumetric/velocity test methods where appropriate. Where a conclusive, sufficiently accurate and viable volumetric/velocity test method has been established, MWC will include this method in its Asset Management Plan for Bulk Water Metering.

Where practicable MWC will facilitate any volumetric/velocity checks required by SEWL in accordance with the obligations under the BWSA.

5. Operation, Adjustment & Repair.

Where the electronic output of a billing meter is outside a $\pm 1\%$ tolerance, the electronic signal will be calibrated by MWC.

Where the volumetric accuracy determined under an agreed and conclusive volumetric/velocity test, is outside a $\pm 1\%$ tolerance, the discrepancy will be referred to the manufacturer for advice on meter adjustment.

Where a meter is faulty a works order will be immediately issued with the following priority:

Level 1 (Investigate & Report within 1 day)

For meters measuring > 50 ML/d

For meters measuring > 10 ML/d and there is no reliable means of estimating volumes.

Level 2 (Investigate & Report within 2 days)

For meters measuring less than 50 ML/d

MWC will endeavour to have a billing meter repaired within 7 days of the error being detected.

6. Re-Calibrating and Replacing.

Faults which cannot be rectified by MWC, will be referred to the meter manufacturer for advice on further testing, re-calibration or replacement. Where a fault investigation report indicates that repairs are to take longer than 7 days, MWC will discuss the proposed method of estimating the volumes with SEWL and agree on interim arrangements.

7. Reading Measurements.

Measurements from each Billing Meter will be read remotely and recorded within MWC's SCADA system.

Daily volumes will be calculated in accordance with MWC's Asset Management Plan for Bulk Water Metering and forwarded daily to SEWL as provisional totals.

Weekly volumes for calculating SEWL's usage charge will be calculated in accordance with MWC's Asset Management Plan for Bulk Water Metering.

- **Use of Totalised Values**

MWC will undertake a review of its current methods of meter reading and telemetry systems in order to determine and implement the most appropriate use of the on-site totaliser values in the billing process.

8. Auditing

Melbourne Water will carry out an annual internal audit, using the principles of ISO9001, to ensure compliance with this protocol.