

BLAKE DAWSON WALDRON

L A W Y E R S

Bulk Water Supply Agreement

Melbourne Water Corporation

City West Water Limited

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BULK WATER SUPPLY AGREEMENT

DATE 26 July 1999

PARTIES

Melbourne Water Corporation ("MW")

City West Water Limited ACN 066 902 467 ("CWW")

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. CWW, 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 CWW, 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 CWW 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**

This agreement commences on the date of this agreement.

This agreement may be terminated in accordance with clause 33.

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 0.

RIGHTS AND OBLIGATIONS OF MELBOURNE WATER

3. **TO SUPPLY WATER**

MW must:

- (a) in accordance with and subject to, this agreement, supply water to CWW sufficient to meet CWW'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 CWW 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 CWW any charges or interest due to MW under clauses 21-25.

RIGHTS AND OBLIGATIONS OF CWW

5. **TO RECEIVE WATER**

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

6. **TOPAY CHARGES**

CWW 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 0; 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, CWW becomes aware of any proposal to amend CWW's Licence (including any provision of the Customer Contract referred to in section 19 of the *Water Industry Act 1994*), CWW must consult MW about any proposed variation which CWW considers will, or is likely to affect MW, before CWW 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 CWW to comply with the Customer Contract,

CWW 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 CWW 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**

Each party must comply with all laws relevant to the subject matter of this agreement.

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.

A protocol adopted under sub-clause 0:

- (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 party of Schedule 8 - Protocols.

This agreement prevails over any protocol adopted under sub-clause 0 to the extent of any inconsistency between them.

IMPLEMENTATION

9. **PERFORMANCE STANDARDS FOR PRESSURE AND FLOW**

9.1 **Supply Standards**

At any time when CWW 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 CWW, install and have access to, a point referred to in paragraph (a) or (b) on assets belonging to CWW, where the point will measure the pressure or flow of water supplied to CWW or another Licensee.
- (d) MW must provide CWW:
 - (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) CWW may, with the written consent of MW and at CWW's expense, install and have access to, measuring devices on assets belonging to MW.
- (f) CWW must not unreasonably withhold permission for MW to have:
 - (i) instantaneous access to data recorded by CWW's SCADA system; and
 - (ii) access to all accumulated data concerning measurements taken at CWW's monitoring points, when MW requests such access.

9.3 Failure to meet performance standards

- (a) On each occasion when either MW or CWW 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 CWW 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) CWW 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 CWW 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 CWW 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 CWW'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 CWW, will not constitute a breach of sub-clause 10.1, if CWW has previously agreed in writing to those levels; and
 - (iv) MW may, at the request of CWW 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 CWW 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 CWW by 30 May 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 E.Coli and total coliforms; and

- (iv) require sufficient sampling and analysis of turbidity, apparent colour, pH, iron, manganese, aluminium, chloroacetic acids and THMs to present a statistically significant representation of those parameters in water supplied to CWW; 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's water quality monitoring program for any year commencing on 1 July must:
- (i) be developed in consultation with CWW 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 CWW; 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.
- (d) MW must provide CWW:
- (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.

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

of water quality, to the extent that such data is available to CWW.

- (f) MW must, as soon as practicable but within 9 days after the end of each month, give CWW, 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).
- (g) MW must set out in each Customer Report, and in any other report which CWW 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 CWW 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 CWW 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 CWW notice of the storages from which MW supplied water to CWW at the commencement date and of the typical chemical characteristics of water supplied from each source of supply.
- (b) MW must give CWW 14 days' notice of its intention to make any major change to the storages from which CWW 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 CWW'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 CWW 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 CWW**

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

- (a) CWW must undertake a water quality monitoring program to sample and analyse water supplied to its consumers.
- (b) CWW 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 CWW; and
 - (ii) details of customer complaints about water supplied,in the previous month.

13.2 **Operation of CWW System**

- (a) CWW 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 CWW'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 CWW, 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 CWW 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 CWW 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 0, 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 CWW 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 CWW 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 CWW,

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 CWW 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, CWW must allow MW access to CWW'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 CWW's ability to supply its own customers.
- (b) MW must pay CWW 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 CWW'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 CWW 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), CWW may ask MW to postpone any temporary alteration or interruption if a particular customer of CWW 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 CWW's customers, CWW 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 CWW notice under paragraph 28(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. CWW'S CUSTOMERS

15.1 General Provisions

- (a) MW must refer to CWW any enquiry from a CWW customer about water supplied by CWW.
- (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 CWW's customers.

15.2 Customers directly connected to MW assets

- (a) Where the premises of a CWW 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 CWW 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 CWW customer to make a direct connection to MW's water supply system,without first obtaining the written consent of the other party.
- (c) CWW must not give its consent under paragraph (b) unless the customer and CWW 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) CWW must use its best endeavours to enter into an agreement with every customer of CWW 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) CWW 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) CWW 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 CWW 12 months' notice of its intention to terminate the supply, if such notice is consistent with CWW's agreement with the customer; and
 - (iii) that if MW gives CWW 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) CWW 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) CWW has entered into a contract under section 21 of the *Water Industry Act 1994* with the owner or occupier of the premises.
- (h) CWW must install, maintain, operate and read a meter for determining the flow of water supplied to each customer referred to in paragraph (a).
- (i) CWW 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) CWW 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

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 CWW in future years.

The parties may adopt a protocol under sub-clause 0 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 0.

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.

- (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 0.
- (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 MWS WATER SUPPLY SYSTEM

17.1 Improvements to Pressure and Flow

- (a) By 30 September in each year, CWW 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 CWW estimates that there will be a significant fluctuation in the demand for water within the area of its Licence.
- (b) MW must provide CWW 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) CWW 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 CWW:
- (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 CWW that the proposed works or measures will meet CWW'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 CWW, MW must consult with CWW and invite and take into consideration any comments made by CWW, 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 CWW 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 0 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 CWW 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 CWW on each matter determined under sub-paragraph (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. **CWW'S OBLIGATION TO PAY**

Charges and interest payable by CWW 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 CWW:
- (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 CWW 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 CWW.

23.3 When an invoice must be paid

- (a) CWW 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 CWW in writing.

23.4 Interest payable

- (a) CWW 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 CWW separately for any interest payable under this sub-clause. CWW must pay any such invoice within seven days of the date of the invoice.

23.5 Disputes about amounts payable

- (a) CWW may give MW written notice if it disputes any invoice given under this clause.
- (b) If CWW so requests, MW must promptly give CWW further information about the volume of water referred to in the invoice and how any estimate of volume was made.
- (c) Notwithstanding any dispute, CWW 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 CWW 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**

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

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

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

The parties, together with other Licensees:

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

- (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 CWW 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 CWW 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).

Within 6 months after the date on which this agreement commences, the parties must agree on, adopt and implement a protocol under sub-clause 0 for:

- (c) installing, maintaining, operating and reading any Billing Meter; and
 - (d) regularly testing for and correcting any electronic malfunction of a Billing Meter, at MW's expense; and
 - (e) testing the volumetric accuracy of each Billing Meter; and
 - (f) providing CWW with access to all data resulting from that testing program; and
 - (g) re-calibrating, repairing or replacing any Billing Meter found to be registering incorrectly.
- (a) MW must arrange for a test referred to in paragraph 0(e) upon the written request and at the expense of, CWW.
 - (b) If a test under paragraph (a) reveals that the device was inaccurate by more than 1%, MW must reimburse CWW the cost of testing the device.

If:

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

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

- (e) by comparison with the volume of water supplied under similar conditions during some other period;

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

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

- (j) re-calibrate the device; and
- (k) adjust the invoice in accordance with sub-clause 25.

25. **ADJUSTMENTS TO CHARGES**

25.1 **Adjustment for Leakage or Incorrect Registration**

- (a) Adjustments to billing volumes will be calculated when one party notifies the other party in writing of a suspected leakage or incorrect billing meter registration.
- (b) If a third party is also affected by the adjustment then Melbourne Water must immediately notify that other party.
- (c) Adjustments will be calculated back to a date, agreed between all parties affected, on which the leak or billing meter error started. This applies in cases where it is possible to determine such a date (such as events caused by recorded operational activities or distinct flow changes evident in SCADA).
- (d) Adjustments made in accordance with paragraph (c) will not be back-dated further than 1 July of the financial year that notification was given.
- (e) If it is not possible to determine an agreed starting date for the leakage or billing meter error (such as pipeline leaks that do not produce a significant change to recorded SCADA flows or a gradual shift to billing meter accuracy), then the billing adjustment shall be made back to the date of written notification.
- (f) Adjustments made in accordance with Clause 25.1 must be resolved between the affected parties:
 - (i) within four weeks of the date of written notification, and
 - (ii) by the 30 June of the financial year in which the written notification was given.
- (g) In the event that agreement can not be reached on an adjustment to the billing then the dispute must be determined in accordance with Clause 30.

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 CWW 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 CWW in the circumstances described in paragraph 25.2(a).

ADMINISTRATIVE PROVISIONS

26. APPOINTMENT AND AUTHORITY OF PRINCIPAL REPRESENTATIVES

Each party must appoint and must, for the duration of this agreement, keep appointed, a Principal Representative for the purpose of this agreement.

The person named in the address of a party set out in clause 34 is deemed to be the Principal Representative of that party.

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.

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.

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

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.

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.

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.

Each party must ensure that the Operating Representatives of the parties for particular obligations of that party,

- (c) meet regularly to discuss and resolve any issues arising under the agreement in relation to those obligations; and
- (d) 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**

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.

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.

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

- (c) settle any dispute on terms; or
- (d) 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.

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 (b).

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

- (e) beyond the reasonable control of the party affected; and
- (f) 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.

For example, an overriding event might be:

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

29. **CONFIDENTIALITY**

Except as provided in sub-clauses 0 and 0, 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.

Despite sub-clause 0, a party may disclose confidential information of the other party:

- (d) 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
- (e) 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.
- (f) 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.

A party may only disclose confidential information under paragraph 29.1 (d) if it imposes upon the person to whom the confidential information is disclosed, an obligation:

- (g) only to use the confidential information; and
- (h) not to disclose that confidential information to any other person, except, for the sole purpose for which the confidential information is disclosed.

If a party is required or compelled to disclose confidential information of the other party under paragraph (e), it must:

- (i) immediately give written notice of that fact to the other party; and
- (j) use its best efforts only to disclose that confidential information of the other party on terms which preserve the strictest confidentiality.

The parties agree and acknowledge that:

- (k) a party may bring proceedings to restrain any breach of threatened breach by the other party of this clause; and
- (l) 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.

The parties do not intend this clause to prevent MW disclosing to a Licensee other than CWW 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.

This clause survives the termination of this agreement.

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

- (m) 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
- (n) in the case of CWW, any knowledge, information or know-how relating to CWW's business, systems, customers, property, assets or affairs, concerning CWW'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 CWW'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 CWW.
- (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 parties; 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 CWW, include:
 - (i) any amount which CWW is required to pay in relation to loss or damage suffered by a customer of CWW or a consumer of water supplied by CWW as a direct result of MW's breach; and
 - (ii) the difference between:
 - (A) the revenue lost by CWW as a result of MW's breach; and
 - (B) all direct and indirect costs that CWW 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 CWW to a customer or a consumer of CWW 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) CWW must:

- (i) take all proper and reasonable action to avoid, resist, compromise and defend any claim by a customer of CWW or a consumer of water supplied by CWW 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 CWW reasonably requests to assist CWW to avoid, resist, compromise and defend a claim referred to in sub-paragraph (b)(i), at CWW'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) CWW ceases to hold a Licence; or
- (c) MW ceases to have the statutory power to provide Water Supply Services.

34. **NOTICES**

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.

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

City West Water Limited

247 – 251 St Albans Road
Sunshine
Vic 3020

Postal Address:
Locked Bag 350
Sunshine
Vic 3020

Principal Representative: Mathew Gieseemann
General Manager - Engineering

Fax No: 9313 8417

E-mail address: mgieseemann@citywestwater.com.au

Telephone: 9313 8422

35. **GST**

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.

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

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*.

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:

- (c) the amount of that liability;

LESS

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

PLUS

- (e) 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*.

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

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

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.

The parties must, in good faith and before 30 June 2000, 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.

The parties must, in good faith, review the operation of, and, if necessary, amend this clause before 30 June 2000.

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 0, 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 CWW.

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.

Uncontrolled copy when printed

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

**EXECUTED by CITY WEST WATER
LIMITED ACN 066 902 467**

Signature of director

Signature of director/secretary

Name of director

Name of director/secretary

SCHEDULE 1
PERFORMANCE STANDARDS FOR PRESSURE AND FLOW
INDEX OF WATER SUPPLY SUPERZONES *

Zone No.	Supply Superzone Name	Licensee	Locality Plans	Zone Plans
1	Greenvale / Broadmeadows / East Keilor	CWW/YVW	CWW-102	CWW-132
3	Yuroke	CWW	CWW-103	CWW-133
4	Sydenham	CWW	CWW-108	CWW-138
5	St. Albans	CWW	CWW-107	CWW-137
6	Preston / North Essendon	CWW/SEW/YVW	CWW-104	CWW-134
7	Werribee (Cowies Hill)	CWW	CWW-105	CWW-135
23	Surrey Hills / Heidelberg / Kew	CWW/YVW	CWW-106	CWW-136
24	Mitcham-Morang / Gaffney Street	CWW/YVW	CWW-101	CWW-131

* 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.

** Please note that all flow allocation limits apply until the end of the current Water Plan in 2008. The allocations will be reviewed for the next Water Plan period.

MW – Pressure Provisions

Zone 1: Greenvale / Broadmeadows / East Keilor Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
CWW-PE667 ~ Greenvale-St.Albans Main (M280/193) - East Keilor (Terror St) PRV (WB5)	at the upstream side of the PRV	127.0	173.0
CWW-PE792 ~ Greenvale-St.Albans Main (M280/193) - Keilor Park (Cemetery Rd) PRV (WB101)	at the upstream side of the PRV	125.0	173.0
CWW-PE249 ~ North Essendon Outlet Main (M102) - East Keilor (Treadwell Rd) Pump Offtake (WP13)	at the pump offtake	81.0	99.5
CWW-PE601 ~ North Essendon Outlet Main (M102) - Rose Hill Road Pump Offtake (WP41)	at the pump station	70.0	99.5
MW -PE522 ~ Greenvale-St.Albans Main (M280/193) - Sharp Road Valve Complex (WG304)	at the offtake <u>Greenvale (north) side of the valve complex</u>	134.0	173.0
<u>MW -PE522 ~ Greenvale-St.Albans Main (M280/193) - Sharp Road Valve Complex (WG304)</u>	<u>St.Albans (south) Side of the valve complex</u>	<u>134.0</u>	<u>173.0</u>
MW -PE486 ~ Greenvale-St.Albans Main (M280/193) - North Essendon Reservoir (WR6) Inlet (M237)	at the reservoir inlet	125.0	173.0

Special Operational Requirements: **None**

CWW - Flow Allocation Limits

Zone 1: *Greenvale / Broadmeadows / East Keilor Supply Superzone*

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Western Transfer Main via LE Cotchins Reserve PRV (WB72) and Greenvale-St.Albans Main south of Melrose Drive	33	19	3,600
Greenvale-St.Albans Main - East Keilor (Terror St) PRV (WB5)	47	17	3,300
Greenvale-St.Albans Main - Keilor Park (Cemetery Rd) PRV (WB101)	6	2	400
North Essendon Outlet Main -East Keilor (Treadwell Rd) Pump Offtake (WP13)	15	5	1,000
North Essendon Outlet Main -Rose Hill Road Pump Offtake (WP41)	15	5	1,000
Maximum Combined Allocation	116	48	9,300
Transferred to Other Zones	-	-	-
Superzone Totals	116	48	9,300

(continued)

CWW - Flow Allocation Limits

Zone 1: Greenvale / Broadmeadows / East Keilor Supply Superzone

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3058F	Western Transfer at Caterpillar Dve	from YVW Zone 1	MW -M350
3086F	Broadmeadows Rd at Melrose Dve	from YVW Zone 1	MW -M193
3027	Melrose Drive	from YVW Zone 1	CWW-Retic
3028	Trade Park Drive	from YVW Zone 1	CWW-Retic
3029F	Catherine Av	from YVW Zone 1	CWW-Retic
3030F	Mickleham Rd	from YVW Zone 1	CWW-Retic
3031F	Coventry Cres at Tullamarine Fwy	from YVW Zone 1	YVW-Retic
305R	St.Albans 1350 Inlet Reverse	from CWW zone 5	MW -M350
3021R	St.Albans 900 Inlet Reverse	from CWW zone 5	MW -M193
22	CWW Treadwell Rd PS	from CWW zone 6	CWW-P13
23&277	CWW Rosehill Rd PS	from CWW zone 6	CWW-P41

Outputs

Meter	Description	Measures	Asset Monitored
3058R	Western Transfer at Caterpillar Dve	to YVW Zone 1	MW -M350
3086R	Broadmeadows Rd at Melrose Dve	to YVW Zone 1	MW -M193
3029R	Catherine Av	to YVW Zone 1	CWW-Retic
3030R	Mickleham Rd	to YVW Zone 1	CWW-Retic
3031R	Coventry Cres at Tullamarine Fwy	to YVW Zone 1	YVW-Retic
305F	St.Albans 1350 Inlet	to CWW Zone 5	MW -M350
3021	St.Albans 900 Inlet	to CWW Zone 5	MW -M193
77	North Essendon Greenvale Inlet	to CWW Zone 6	MW -R6

MW – Pressure Provisions

Zone 3: Yuroke Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Yuroke Reservoir (WR67)	water level in the reservoir (or bypass pressure)	194.0	204.0
MW -PE537 ~ Greenvale-Yuroke-Sydenham 1150mm Main (M333) - at Sydenham Reservoir (WR64) Inlet (For Keilor-Melton Rd Offtake)	at the reservoir inlet	165.0	204.0

Special Operational Requirements: None

Reservoir Nominal Operating Level:

During summer, MW will aim, in recognition of the design assumptions made by CWW, to maintain **Yuroke Reservoir** above a level of **196.10 m AHD** which represents a level equivalent to one third of the operating volume of the reservoir.

CWW - Flow Allocation Limits

Zone 3: Yuroke Supply Superzone

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Yuroke-Sydenham Main	120	36	6,900
Maximum Combined Allocation	120	36	6,900
T transferred to Other Zones	-	-	
Superzone Total	120	36	6,900

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3013	Yuroke-Sydenham at Sunbury Rd	from YVW Zone 2	MW-M333
251R	Sydenham PS	from CWW Zone 4	MW-R64

Outputs

Meter	Description	Measures	Asset Monitored
3093	Loemans Rd to Western Water	to WRWA	WW-Loemans PS
3100	Melton Hwy to Western Water	to WRWA	WW-Hillside PS
251F	Sydenham Reservoir Inflow	to WR64	MW-R64
3113	Loemans Rd 450 to WW	to WRWA	WW-Loemans

MW – Pressure Provisions

Zone 4: *Sydenham Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Sydenham Reservoir (WR64)	water level in the reservoir	121.0	129.0
MW-PE176 ~ Greenvale-St Albans Main (M193) - Offtake at St Albans Reservoir from inlet works (WR32)	at the offtake	115.0	-

Special Operational Requirements: **None**

Reservoir Nominal Operating Level:

During summer, MW will aim to, in recognition of the design assumptions made by CWW, maintain **Sydenham Reservoir** above a level of **123.30** m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

CWW - Flow Allocation Limits

Zone 4: Sydenham Supply Superzone

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Sydenham Reservoir (WR64)	170	60	13,000
Greenvale - St Albans Cross-Connection at St.Albans Reservoir (WR32)	60	10	500
Maximum Combined Allocation	230	70	13,500
T transferred to Other Zones	-	-	
Superzone Total	230	70	13,500

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
FE175F	Sydenham Reservoir Inflow	from CWW Zone 3	MW-R64
FE176R	St.Albans Reservoir Cross Connection	from CWW Zone 5	MW-R32

Outputs

Meter	Description	Measures	Asset Monitored
FE176F	Sydenham - St.Albans	to CWW Zone 5	MW-R32
FE175R	Sydenham Res Outlet Reverse	to WR64	MW-R64

MW – Pressure Provisions

Zone 5: St.Albans Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
St Albans Reservoir (WR32)	water level in the reservoir	89.35	100.5
MW -PE679 ~ St Albans Reservoir Western Outlet Main(M257) -Ardeer PRV (WB32) Inlet	at upstream side of the PRV	80.0	100.5

Special Operational Requirements: None

Reservoir Nominal Operating Level:

During summer, MW will aim, in recognition of the design assumptions made by CWW, to maintain **St.Albans Reservoir** above a level of **93.00 m AHD** on days of high demand (days in which the temperature exceeds 35 °C) up to 3100 ML. However, for consecutive days of high demand it is probable that during peak demand hours the reservoir level will fall below 93.00 m.

CWW - Flow Allocation Limits

Zone 5: St.Albans Supply Superzone

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
St Albans Reservoir	110	40	7,700
Maximum Combined Allocation	110	40	7,700
T transferred to Other Zones	-	-	
Superzone Total	110	40	7,700

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3067	St.Albans Western Outlet	from CWW Zone 1	MW -R32
3068	St.Albans Eastern Outlet	from CWW Zone 1	MW -R32

Outputs

Meter	Description	Measures	Asset Monitored
84	Ardeer PRS	to CWW Zone 6	MW -B32
Estimated	Eastern Chlorinator recirculation pump	to WR32	MW -R32

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)
	North Essendon Reservoir (WR6)	water level in the reservoir	84.0	89.0
	MW-PE680 ~ Ardeer PRV (WB32)	at the downstream side of the PRV	66.0 69.0 on days of >30°C only 68.0	99.5
P1	MW-PE221 ~ Preston-North Essendon Main (M9/70/102a) - Carnarvon Road Offtake	at the Nth Essendon inlet	84.0	99.5
P2	MW-PE338 ~ Preston Footscray Main (M160) MW-PE3141 ~ Preston - Punt Rd Main M474 - St. Georges Rd at Merri Creek	at the offtake	832.0	99.5
P3	MW-PE3107 ~ Preston-Footscray Main (M160) - at Shepherds Bridge	at the offtake	71.0	99.5
P4	MW-PE773 ~ Northcote-Punt Rd Main (M41) - Gosch's Paddock (Yarra River)	at the offtake	76.0	102.0
P5	MW-PE46 ~ North Essendon Outlet Main (M102b) - Ashley Street at Cranwell St	at the offtake	66.0	99.5
P6	MW-PE178 ~ St Albans Outlet (Fitzgerald Rd) Main (M257) - at Princes Highway	at the offtake	652.0	99.5
P7	MW-PE525 ~ Cowies Hill (Werribee) Reservoir Inlet Main (M351) - at Reservoir	at the reservoir inlet	65.0	99.5

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Special Operational Requirements: None

Reservoir Nominal Operating Level:

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During summer, MW will aim, in recognition of the design assumptions made by CWW, to maintain **North Essendon Reservoir** above a level of **85.40** m AHD which represents a level equivalent to one third of the operating volume of the reservoir.

CWW - 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)	Annual (ML)
Preston Reservoir (WR21 & WR22)	520	337	71,120
North Essendon Reservoir (WR6)	196	100	15,600
Net Transfer in via Yarra River Flow Meters	-80	-30	3,500
Transfer out to East Keilor (Treadwell Rd) Pump Offtake (WP13)	-15	-5	-60
Transfer out to Rose Hill Road Pump Offtake (WP41)	-15	-5	-60
Ardeer PRV (WB32)	178	100	3,800
Laerton Transfer (WP42)	0	0	0
Cowies Hill Reservoir (WR43) - Inflow	0	-71	-13,700
Maximum Combined Allocation	894	537	94,020
Transferred to Other Zones	-110	-111	-13,820
Superzone Total	764	426	80,200

(continued)

CWW - Flow Allocation Limits

Zone 6: Preston / North Essendon Supply Superzone

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3063F	Preston-Nth Ess 1 at Moonee Ponds Ck	from YVW Zone 6	MW -M9
3039F	Moreland Road at Moonee Ponds Creek	from YVW Zone 6	CWW-Retic
3033	Fleming Street at Park Street	from YVW Zone 6	CWW-Retic
3034F	The Avenue at Park Street	from YVW Zone 6	CWW-Retic
3035F	Royal Parade at Park Street	from YVW Zone 6	CWW-M206
3036F	Bowen Crescent at Park Street	from YVW Zone 6	CWW-Retic
3079F	Lygon Street at Park Street	from YVW Zone 6	CWW-M4
3006	St. Georges Rd 1700 at Merri Creek	from YVW Zone 6	MW -M474
3007	St. Georges Rd 1350 at Merri Creek	from YVW Zone 6	MW -M160
3038F	Heidelberg Rd at Merri Creek	from YVW Zone 6	CWW-Retic
3040	Harcourt Parade at Punt Road	from SEW Zone 6	CWW-Retic
3101F	Hoddle Bridge	from SEW Zone 6	MW -M41
3102F	Morell Bridge	from SEW Zone 6	CWW-M162
332R	Queens Bridge	from SEW Zone 6	SEW -M4
333R	Grimes Bridge	from SEW Zone 6	SEW -M204
3060F	North Essendon Reservoir Outlet	from WR6	MW -M102
84	Ardeer PRS	from CWW Zone 5	MW -B32

Outputs

Meter	Description	Measures	Asset Monitored
49	North Essendon Reservoir Inlet	to WR6	MW -M9
3060R	North Essendon Reservoir Outlet Reverse	to WR6	MW -M102
22	CWW Treadwell Rd PS	to CWW Zone 1	CWW-P13
23&277	CWW Rosehill Rd PS	to CWW Zone 1	CWW-P41
3063R	Nth Ess-Preston 1 at Moonee Ponds Ck	to YVW Zone 6	MW -M9
3039R	Moreland Road at Moonee Ponds Creek	to YVW Zone 6	CWW-M7
3034R	The Avenue at Park Street	to YVW Zone 6	CWW-Retic
3035R	Royal Parade at Park Street	to YVW Zone 6	CWW-M206
3036R	Bowen Crescent at Park Street	to YVW Zone 6	CWW-Retic
3037	St. Georges Road at Clarke Street	to YVW Zone 6	YVW-Retic
653	Merri Parade at St. Georges Road	to YVW Zone 6	MW -M205
3038R	Heidelberg Rd at Merri Creek	to YVW Zone 6	CWW-Retic
3101R	Hoddle Bridge	to SEW Zone 6	MW -M41
3102R	Morell Bridge	to SEW Zone 6	CWW-M162
332F	Queens Bridge	to SEW Zone 6	SEW -M4
333F	Grimes Bridge	to SEW Zone 6	SEW -M204
Estimated	Eastern Chlorinator recirculation pump	to WR32	MW -R32
398	Cowies Hill Reservoir Inlet	to CWW Zone 7	MW -M351
27	Bladin St PS	to CWW Zone 7	CWW-M182
3079R	Lygon Street at Park Street	to YVW Zone 6	CWW-M4

MW – Pressure Provisions

Zone 7: Werribee (Cowies Hill) Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
Cowies Hill Reservoir (WR43)	water level in the reservoir	61.0	68.0

Special Operational Requirements:

Laverton Pumping Station (WP42)

1. Minimum operation only to ensure turnover of Cowies Hill inlet
2. Pumps are not to operate during peak periods (1800 -2200 hours) as it will pull the Preston Zone grades down.

Reservoir Nominal Operating Level

During summer, Melbourne Water will aim, in recognition of the design assumptions made by CWW, to maintain **Cowies Hill Reservoir** above a level of **62.50 m** AHD on days of high demand (days in which the temperature exceeds 35 °C) up to 3100 ML. However, for consecutive days of high demand it is probable that during peak demand hours the reservoir level will fall below 62.50 m.

CWW - Flow Allocation Limits

Zone 7: Werribee (Cowies Hill) Supply Superzone

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Cowies Hill Reservoir (WR43)	192	71	13,700
T transferred from Preston - Nth Essendon Main via Laverton PS (WP42)	0	0	0
Maximum Combined Allocation	192	71	13,700
T transferred to Other Zones	-	-	-
Super Zone Total	192	71	13,700

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3066	Cowies Hill Reservoir Outlet	from CWW Zone 6	CWW-M285

Outputs

Meter	Description	Measures	Asset Monitored
Estimated	Chlorinator recirculation pump	to CWW Zone 6	MW-R43

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MW – Pressure Provisions

Zone 23: *Surrey Hills / Heidelberg / Kew Supply Superzone*

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
* No Pressure monitoring point as supply is from Yarra Valley Water's distribution main.			

Special Operational Requirements: None

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CWW – Flow Allocation Limits

Zone 23: *Surrey Hills / Heidelberg / Kew Supply Superzone*

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Surrey Hills No 1 & 2 Reservoirs (WR25 & 26)	28	17	3,300
Maximum Combined Allocation	28	17	3,300
T ransferred to Other Zones	-	-	
Superzone Total	28	17	3,300

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3080	Kew Reservoir Outlet at Yarra River	from YVW Zone 23	CWW-M111
3109F	Swan Street at Yarra River	from YVW Zone 23	CWW-Retic

Outputs

Meter	Description	Measures	Asset Monitored
3109R	Swan Street at Yarra River	from YVW Zone 23	CWW-Retic

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MW – Pressure Provisions

Zone 24: Mitcham - Morang / Gaffney St Supply Superzone

Pressure Monitoring Point	Location	Absolute Pressure Provisions	
		Minimum HGL (metres AHD)	Maximum HGL (metres AHD)
* No Pressure monitoring point as supply is from Yarra Valley Water's distribution main. MW PE232 - Preston Reservoir (WR21/22) - Western Suburbs PRV (valve E11) Outlet (WB24)	at the downstream side of the PRV	109.0	-

Special Operational Requirements: None

CWW – Flow Allocation Limits

Zone 24: Mitcham - Morang / Gaffney St. Supply Superzone

Flow Allocation Point	Flow Allocation Limits		
	Peak Hour Flow Rate (ML/day)	Max Day (ML)	Annual (ML)
Western Suburbs (Gaffney St) PRV (WB24)	15	7	1,400
Maximum Combined Allocation	15	7	1,400
T ransferred to Other Zones	-	-	-
Superzone Total	15	7	1,400

Flow Allocations will be measured using the following monitoring devices:

Inputs

Meter	Description	Measures	Asset Monitored
3062	Gaffney St at Moonee Ponds Creek	from YVW Zone 24	CWW-M5
3032F	Reynard St	from YVW Zone 24	CWW-Retic

Outputs

Meter	Description	Measures	Asset Monitored
3032R	Reynard St	to YVW Zone 24	CWW-Retic

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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.

Site code	Site description	WQ Zone No.	Melways Ref.
Entry sites			
EGVLKENY	GREENVALE OUTLET MAIN	7A, 7	6 C 6
ESILOLI1	SILVAN OLINDA MAIN DET. PT.	48, 56, 60, 570-590, 610, 620	120 B4
ESILPRE1	SILVAN PRESTON MAIN DET. PT.	48, 56, 60	120 B 4
ESILWAV1	SILVAN WAVERLEY MAIN DET. PT.	48, 56, 60, 570-590, 610, 620	120 B 4
EWINSLRM	WINNEKE CWS O/L MAIN AT SPS	18, 25, 620	273 A 8
EYURKDTP	G'VALE YUROKE DETENTION POINT	5A	177 G9
Monitoring sites			
MALNKCRK	LARGE MAIN - KOROROIT CREEK	2, 2A	40 G11
MARDRPRS	LARGE MN FITZ'LD RD ARDEER PRS	3A	25 G12
MDSALDP7	DESAL MAIN DETENTION POINT 7	N/A	
MEKLTERR	TERROR ST MAIN	6	15 F8
MWPMRSCH	WINNEKE PRESTON MAIN RESEARCH	18, 25	22 H1
RCOW1RT1	COWIES HILL RES 1 - TAP ON TNK	1, 1A, 2, 2A	202 A5
RCOW2RT1	COWIES HILL RES 2 - TAP ON TNK	1, 1A, 2, 2A	202 A5
RNES1RT1	NTH ESSENDON NO.1 TAP ON TANK	3A, 6, 9A	16 D7
RNES2RT1	NTH ESSENDON NO.2 TAP ON TANK	3A, 6, 9A	16 D7
RNES4RT1	NTH ESSENDON NO.4 TAP ON TANK	3A, 6, 9A	16 D7
RNES5RT1	NTH ESSENDON NO.5 TAP ON TANK	3A, 6, 9A	16 D7
RNESSET1	NTH ESSENDON RES COMBINED O/L	3A, 6, 9A	16 D 7
RPRES1T1	PRESTON RES COMBINED O/L	9B, 11, 9, 10, 610, 620	18 G 7
RPRES1T4	PRESTON I/L FROM WINNEKE	9B, 11, 9, 14	18 G 7
RPRES1T6	PRESTON I/L FROM MITCHAM	9B, 11, 9, 53	18 G 7
RSAL1RT1	ST ALBANS NO.1 - TAP ON TANK	5	13 H 8
RSAL2RT1	ST ALBANS NO.2 - TAP ON TANK	5	13 H 8
RSAL3RT1	ST ALBANS NO.3 - TAP ON TANK	5	13 H 8
RSALBIT1	ST ALBANS 900 MAIN INLET	6	13 H 8
RSYDNIT1	SYDENHAM RES - TAP ON I/L	5B	356 K3
RSYDNRT1	SYDENHAM RES - TAP ON RES	4, 5	356 K3
RSYR1ET1	SURREY HILLS NO.1 - TAP ON RES	53, 54, 55	46 K 11
RSYR2ET1	SURREY HILLS NO.2 - TAP ON RES	53, 54, 55	47 A 12
RYURKRT1	YUROKE RES - TAP ON TNK	5A	177 G9

**SCHEDULE 3
WATER QUALITY STANDARDS**

6. OPERATING PRACTICES

7. GENERAL PRINCIPLES

- a. MW must ensure that its systems and processes are compliant with the Safe Drinking Water Regulations 2015 (Vic).
- b. In order to comply with the Safe Drinking Water Regulations 2015 (Vic), MW must take a risk based approach to safeguarding product quality.
- c. Any changes to the rationale used in controlling risk must be reviewed by CWW prior to implementation.
- d. MW must ensure that any system changes with potential quality impacts are to be communicated and approved by CWW via the OCCP process.

8. PRIMARY TREATMENT

- a. MW must ensure that effective disinfection of drinking water is achieved before it reaches the first consumer offtake. The basis of effective disinfection is to be detailed in the Drinking Water Quality Management Plan.
- b. For systems reliant on chlorination for primary disinfection, a general adjustment factor of 0.7 is to be used to calculate Ct to allow for the decay characteristics of chlorine, unless an alternative factor has been agreed to by both parties:

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

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).

- c. The parties will collaborate in developing, in accordance with sub-clause 8.2 (b), a protocol for chlorine residual management. The developed protocol will give consideration of other system operating constraints, such as hydraulic requirements and the needs of other Licensees and their customers, and will address:
 - i. Methodologies to optimise chlorine residuals and set chlorine residual targets across the entire Melbourne water system;
 - ii. Monitoring and data acquisition requirements regarding measurement of chlorine residuals and associated parameters; and
 - iii. Operational triggers and corrective actions to improve chlorine residual management.

9. PART B WATER QUALITY MONITORING

1 INTERPRETATION

In this Part:

"**Monitoring Point**" includes Water Quality Monitoring Point and Entry Point.

"**year**" means a rolling 12 month period.

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

"**standard**" means the standards detailed for the relevant Monitoring Points in Part C.

"**regulated standard**" means the standards prescribed in the *Safe Drinking Water Regulations 2015* (Vic).

10. REPORTING

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

- Results for the preceding 12 months at each Monitoring Point for compliance with the BWSA standards in Part C of this schedule
- Corrective actions and investigations taken within the relevant month

11. HEALTH-RELATED PARAMETERS

- a. MW will implement a sampling and laboratory analysis program that complies with the requirements of the *Safe Drinking Water Regulations 2015* (Vic).
- b. Measured water quality at any Monitoring Point is to comply with the specification in the *Safe Drinking Water Regulations 2015* (Vic).
- c. Upon any *E. coli* detection for a Monitoring Point, MW must declare an incident in accordance with Clause 14.3 and take immediate action to identify and rectify any cause of the *E. coli* detection.
- d. Each party must notify the other immediately if any routine sample exceeds the *Safe Drinking Water Regulations 2015* (Vic) standards for THMs. MW must take action if any sample at a Monitoring Point exceeds the regulated standards for THMs.

12. AESTHETIC PARAMETERS

GENERAL

- i. During extreme operating periods (including drought recovery or emergencies) MW and CWW can, by mutual agreement, vary the aesthetic standards and action limits for specific Monitoring Points to optimise the operation of the water supply system (including harvesting of water sources).
- ii. If the trend for any aesthetic parameter is leading toward an exceedance of any aesthetic standards and action limits, MW must consult with CWW and undertake agreed actions.

TURBIDITY

- iii. Of samples taken at any Monitoring Point, the 95%ile in any year must be less than or equal to the standard in Part C for each source water

APPARENT COLOUR

- iv. Of samples taken at any Monitoring Point in any year, the 95%ile in any year must be less than or equal to the standards in Part C for each source water
- v. 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. Melbourne Water must test for true colour when values of apparent colour exceed 15 Pt/Co units.

pH

- vi. Of samples of water taken at any Monitoring Point in any year, the 5%ile and 95%ile data must lie within the standards in Part C.

IRON

- vii. Of samples of water taken at any Monitoring Point, the 95%ile of samples of water collected in any year must not be greater than 0.15 mg/L.

MANGANESE

- viii. Of samples of water taken at any Monitoring Point, the 95%ile of samples of water collected in any year must not be greater than 0.05 mg/L.

ALUMINIUM (ACID SOLUBLE)

- ix. Of samples of water taken at any Monitoring Point where aluminium-based treatment chemicals have been used, the 95%ile at any site for any year must not be greater than 0.10 mg/L.
- x. Of samples of water taken at any Monitoring Point where aluminium-based chemicals have not been used, the 95%ile at any of these sites for any year must not be greater than 0.15 mg/L.
- xi. MW must take immediate action if a aluminium (acid soluble) in any sample exceeds:
 - a. 0.10 mg/L at any Monitoring Point that a 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.

BORON

- xii. Of samples of water taken at any Monitoring Point, the maximum for any year must not be greater than 1 mg/L.

TOTAL DISSOLVED SOLIDS

- xiii. Of samples of water taken at any Monitoring Point, the maximum for any year must not be greater than 140 mg/L.

BROMIDE

- xiv. Of samples of water taken at any Monitoring Point, the maximum for any year must not be greater than 0.1 mg/L.

13. ADDITIONAL PARAMETERS

COLIFORMS

- i. Melbourne Water 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.

ALGAE

- ii. Melbourne Water must take action and notify CWW of any increase in algal numbers that may impact on the quality of drinking water supplied, and undertake agreed actions

14. PART C WATER QUALITY STANDARDS

The following standards apply only to those Monitoring Points where the parameter is monitored in accordance with the water quality monitoring program described in Clause 10.2

1 Fixed Standards That Apply to All Monitoring Points

Parameter	Monitoring Points	Standard (mg/l)
Iron ^f	All	<0.15
Manganese ^a	All	<0.05
THMs ^a	All	<0.15
Boron ^a	All	<1
Total Dissolved Solids ^d	All	<140
Bromide ^e	All	<0.1
pH ^f	All	6.5-8.5

- a) Based on 50% of ADWG limit
b) THMs – SDWR limit 0.25mg/L. Limit set to 0.15mg/L to allow for additional THMs that may be generated downstream of MW interface.
c) Boron – risk of elevated concentration from desalinated seawater supply
d) TDS – risk of elevated concentration from desalinated seawater supply
e) Bromide – risk of elevated concentration from desalinated seawater supply
f) Based on ADWG recommendations for protection of pipe condition

15. Standards that Vary Based on Monitoring Point

Standard Category ^a	Turbidity (NTU) ^b	Apparent Colour (Pt/Co) ^c	Aluminium (Acid Soluble) (mg/L) ^d
Cardinia Entry Point	< 2	< 10	< 0.15
Greenvale Entry Point	< 2	< 10	< 0.15
Healesville Entry Points	< 0.5	< 5	< 0.10
Johns Hill / Monbulk	< 2	< 15	< 0.15
Silvan Entry Points	< 2	< 10	< 0.15
Sugarloaf Entry Point	< 0.5	< 5	< 0.10
Upper Yarra Entry Points	< 3	< 15	< 0.15
Yarra Glen Entry point	< 0.5	< 5	< 0.10
Yan Yean Entry Point (online)	< 0.5	< 5	< 0.10
Silvan Monitoring Points	< 2	< 10	< 0.15
Silvan/Sugarloaf Monitoring Points	< 2	< 10	< 0.15
Silvan/Sugarloaf/Cardinia Monitoring Points	< 2	< 10	< 0.15
Silvan/Sugarloaf/Greenvale Monitoring Points	< 2	< 10	< 0.15
Sugarloaf Monitoring Points	< 1	< 5	< 0.10
Sugarloaf/Yan Yean Monitoring Points	< 1	< 5	< 0.10

- a) All standards are consistent with data for the 2012/13 – 2014/15 period.
b) For filtered supplies, entry point standards are <0.5 NTU, and monitoring point standards are <1NTU (to allow for sediment mobilisation). For unfiltered and blended supplies all entry and monitoring point standards are <2NTU, with the exception of Upper Yarra entry points, where the standard is <3NTU.
c) For filtered supplies, all entry and monitoring point standards are <5NTU. For unfiltered and blended supplies the standard is <10NTU, with the exception of Upper Yarra entry points where the standard is <15NTU.
d) For plants with aluminium based chemical dosing, the standard is <0.10 mg/L. For sites without aluminium based chemical addition the standard is <0.15 mg/L.

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16. Source Water Categories

BWSA source water category	Site code	WQ Zone No.
Greenvale	EGVLKENY	7A, 7
Greenvale	EYURKDTP	5A
Greenvale	RSAL2RT1	5
Greenvale	RSALBIT1	6
Greenvale	RSYDNIT1	5B
Greenvale	RSYDNRT1	4, 5
Silvan	ESILPRE1	48,56,60
Silvan	ESILOLI1	48, 56, 60, 570-590,610,620
Silvan	ESILWAV1	48,56,60,570-590, 610, 620
Silvan	RSYR1ET1	53, 54, 55
Silvan	RSYR2ET1	53, 54, 55
Silvan/Sugarloaf	MALNKCRK	2, 2A
Silvan/Sugarloaf/Greenvale	MARDRPRS	3A
Silvan/Sugarloaf/Greenvale	MEKLTERR	6
Silvan/Sugarloaf/Greenvale	RCOW1RT1	1, 1A, 2, 2A
Silvan/Sugarloaf/Greenvale	RCOW2RT1	1, 1A, 2, 2A
Silvan/Sugarloaf/Greenvale	RNES1RT1	3A, 6, 9A
Silvan/Sugarloaf/Greenvale	RNES2RT1	3A, 6, 9A
Silvan/Sugarloaf/Greenvale	RNES4RT1	3A, 6, 9A
Silvan/Sugarloaf/Greenvale	RNES5RT1	3A, 6, 9A
Silvan/Sugarloaf/Greenvale	RNESSET1	3A, 6, 9A
Silvan/Sugarloaf/Greenvale	RSAL1RT1	5
Silvan/Sugarloaf/Greenvale	RSAL3RT1	5
Silvan/Sugarloaf/Greenvale	RYURKRT1	5A
Silvan/Winneke	RPRESIT4	9B, 11, 9, 14
Silvan/Winneke	RPRESIT6	9B, 11, 9, 53
Silvan/Winneke	RPRESET1	9B, 11, 9, 10, 610, 620
Sugarloaf	MWPMRSCH	18, 25
Sugarloaf	EWINSLRM	18, 25, 620

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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	MWPMRSCH	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
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

DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
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 changed for some sites	New colour 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	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
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

DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
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 from 0.10 to 0.08 mg/L	Revised standard after release of the Safe Drinking Water Regulations
1 Feb 2007	EWINSLRM	-	Aluminium standard changed from 0.1 mg/L to 0.15	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 Sites	-	Updated zone numbers to reflect new CWW zone numbering	Zone numbers and names have been changed as part of the Victorian drinking water regulations.
11-aug-2008	RPRESIT5		Site removed	This site is not a direct monitoring point for entry into CWW system.
17-Apr-2009	All		Fluoride standards changed to 0.6 – 1.2	Updated fluoride requirements to match new fluoride regulations
01-Jun-2009	Monitoring points "M" & "R" sites		E.Coli compliance changed from 99% <1 to <98% <1	To bring the compliance into line with ADWG and SDWR
17-May-2016	MCOWDTP1	Site removed		New program measures on tank outlets rather than mains wherever possible to minimise need to sample on RWC reticulation. Site represented by Cowies Hill reservoir outlets.
17-May-2016	MFOOTSOM	Site removed		New program measures on tank outlets rather than mains wherever possible to minimise need to sample on RWC reticulation. Site water quality represented by Preston Combined Outlet.

DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
17-May-2016	MSALEAST	Site removed		New program measures on tank outlets rather than mains wherever possible to minimise need to sample on RWC reticulation. Site represented by St Albans reservoir outlets.
17-May-2016	ESILWAV1	Site added		All Silvan treatment plants are typically interconnected downstream, and this site is therefore relevant to CWW supply.
17-May-2016	RYURKRT1	Site added		Yuroke tank sampling point
17-May-2016				Added 'General Principles' section to operating practices
17-May-2016				Replaced specific detail around requirements for primary disinfection with requirements to comply with SDWR (2015) and risk management plan.
17-May-2016				Updated E. coli requirements to reference SDWR (2015) ie no E. coli detection
17-May-2016				Removed requirements for chloroacetic acids due to change in regulations
17-May-2016				Removed fluoride dosing requirements as they are specified in Section 10 of the BWSA
17-May-2016				Added a general section to the aesthetic parameters section that describes the general approach to the limits
17-May-2016				Changed aesthetic limits to 95%ile (rather than 95% UCL of the mean) to be consistent with the change in statistical calculation in the SDWR (2015)
17-May-2016				Added boron, TDS and bromide parameters due to potential for introduction of desalination plant.
17-May-2016				Introduced two new summary tables with limits that vary for monitoring points and limits that are fixed for all monitoring points
17-May-2016				Removed table with previous limits based on specific entry points and monitoring points.

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DATE	SITECODE	CHANGED TO / REPLACED BY	PARAMETER	REASON FOR CHANGE
17-May-2016				Revised colour and turbidity limits based on 95%ile data from 2012/13 -2014/15

SCHEDULE 4

DIRECT CONNECTIONS

PART A – ARRANGEMENTS BETWEEN MW AND CWW

1. **INTERPRETATION**

The following definitions apply in this Schedule.

"**customer**" means a customer of CWW 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
- (a) 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
- (b) 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 CWW's meter assembly or, where no meter is fitted, the stop-tap near the boundary of CWW's customer's premises, and any fixtures attached to that pipe.

2. **APPLICATION OF SCHEDULE**

- 2.1 This Schedule applies, in addition to the provisions of sub-clause 15.2, to all premises and CWW 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 CWW'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 CWW 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 CWW customer supplied under sub-clause 15.2 in an emergency, MW must, wherever possible, inform both CWW and the customer.

3.7 Power to terminate supply

- (a) MW may terminate a supply of water to a direct connection point after giving CWW 12 months' notice to CWW and CWW'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 CWW 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 CWW's agreement with the customer allows CWW 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 CWW 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 CWW's agreement with the customer allows CWW 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 CWW 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) CWW has entered into an agreement with the relevant customer containing terms of comparable effect to the terms set out in Part B; and
 - (ii) CWW 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) CWW has complied with paragraph 15.2(f) in respect of the relevant customer and premises.
- (e) Whenever CWW has failed to comply with any requirement of paragraph (d) CWW will indemnify MW and the relevant customer or consumer of water (each an "**indemnified person**") against, and must pay the amount or 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. CWW'S RIGHTS AND OBLIGATIONS

4.1 To enter into agreement with new owners

Whenever CWW discovers that the ownership of any premises referred to in item 2 has changed, CWW 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 CWW of a fault in a temporary trunk service under item 3.4, CWW must require the relevant customer to repair the fault.

4.3 To operate MW's valves

CWW 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, CWW 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, CWW 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 CWW to MW under paragraph 15.2(j)(i).

4.5 To notify MW of disconnection

CWW 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 CWW receives a notice from MW under item 3.8(a), CWW must disconnect the relevant temporary trunk service at the direct connection point before the expiration of 12 months after the date of the notice.
- (a) MW may, by written notice to CWW, require CWW 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) CWW must promptly comply with any notice given under item (b).

4.7 To manage certain contact with Customers

CWW 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 CWW under paragraph 15.2(j)(i), MW must invoice CWW 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**

CWW 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 23.4(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) CWW 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 CWW 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) CWW 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) CWW 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 CWW.
- (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 CWW, CWW may carry out the required repairs and recover its reasonable costs from the Customer.

4. **TERMINATION OF SUPPLY**

- (a) CWW may terminate this agreement and any supply of water pursuant to this agreement:

- (i) at any time, if MW gives CWW 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 CWW of MW's intention to terminate the supply of water to the direct connection point.
- (b) CWW'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 CWW 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 CWW 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 CWW 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 CWW 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 CWW 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

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- (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.

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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 CWW

1. Subject to item 3 and 4, the volume of water supplied by MW to CWW 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; and
 - (b) the macro model developed for the ITN System.
3. Until 1 April 2000 or such other date as the parties agree,
- (a) CWW will supply water to Transfield-Obayashi in Batman Avenue, from CWW's main downstream of Billing Meter FE3008;
 - (b) CWW will maintain the meter, read it monthly and advise MW of the metered volume;
 - (c) MW will further adjust the volumes determined under this Schedule by adding the metered volume referred to in item (b).
4. Until 30 June 2004 or such other date as the parties agree,
- (a) CWW will supply water to Southern Rural Water, from CWW's main downstream of Cowies Hill Reservoir;
 - (b) CWW will advise MW of the weekly metered volume;
 - (c) Mw will further adjust the volumes determined under this Schedule by subtracting the metered volume referred to in item (b).

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**TABLE A
METERED INFLOWS**

DESCRIPTION	FLOW ELEMENT	SOURCE CALL UPS
Broadmeadows Rd, Greenvale - St Albans (South Flow)	FE3086F	WG3086.A1
Hoddle Bridge, South East to City West (North Flow)	FE3084F	WG331.A10
Queens Bridge, South East to City West (North Flow)	FE332R	WG332.A11
Grimes Bridge, South East to City West (North Flow)	FE333R	WG333.A11
Morell Bridge, South East to City West (North Flow)	FE3008F	WG331.A12
Preston - Punt Road Main (FE 3006)	FE3006	WG653.A2
Preston - Footscray Main (FE 3007)	FE3007	WG653.A3
Melrose Dr at Springbank Rd	FE3027	WG3027.A1
Melrose Dr at Trade Park Dr	FE3028	WG3028.A1
Melrose Dr at Catherine Ave (South Flow)	FE3029F	WG3029.A1
Mickleham Rd at Melrose Dr (South Flow)	FE3030F	WG3030.A1
Coventry St at Mascoma St (South Flow)	FE3031F	WG3031.A1
Reynard St at Moonee Ponds Ck (West Flow)	FE3032F	WG3032.A1
Park St at Fleming St	FE3033	WG3033.A1
Park St at The Avenue (South Flow)	FE3034F	WG3034.A1
Royal Parade 200m Sth of Park St (South Flow)	FE3035F	WG3035.A1
Park St at Bowen Cr (South Flow)	FE3036F	WG3036.A1
Heidelberg Rd at Merri Ck (West Flow)	FE3038F	WG3038.A1
Moreland Rd at Moonee Ponds Ck (West Flow)	FE3039F	WG3039.A1
Punt Rd at Harcourt St	FE3040	WG3040.A1
Western Transfer Main - Sharps Rd east of Broadmeadows Rd (West Flow)	FE3058F	WG3058.A1
Gaffney St at Moonee Ponds Ck	FE3062	WG3062.A1
Gaffney St at Moonee Ponds Ck (M9) (West Flow)	FE3063F	WG3063.A1
Gaffney St at Moonee Ponds Ck (M70) (West Flow)	FE3064F	WG3064.A1
Park St West Of Lygon St (South Flow)	FE3079F	WG3079.A1
Bridge Rd at Yarra River	FE3041	WG 3041.A1
Victoria St at Yarra River	FE3080	WG 3080.A1

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Sunbury Road	FE3013	WG3013.A1
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**TABLE B
METERED OUTFLOWS**

DESCRIPTION	FLOW ELEMENT	SOURCE CALL UPS
Broadmeadows Rd, Greenvale - St Albans Reversed (North Flow)	FE3086R	WG3086.A2
Hoddle Bridge, City West to South East (South Flow)	FE3084R	WG331.A11
Queens Bridge, City West to South East (South Flow)	FE332F	WG332.A10
Grimes Bridge, City West to South East (South Flow)	FE333F	WG333.A10
Morell Bridge, City West to South East (South Flow)	FE3008R	WG331.A13
Melrose Dr at Catherine Ave (North Flow)	FE3029R	WG3029.A2
Mickleham Rd at Melrose Dr (North Flow)	FE3030R	WG3030.A2
Coventry St at Mascoma St (North Flow)	FE3031R	WG3031.A2
Reynard St at Moonee Ponds Ck (East Flow)	FE3032R	WG3032.A2
Park St at The Avenue (North Flow)	FE3034R	WG3034.A2
Royal Parade 200m Sth of Park St (North Flow)	FE3035R	WG3035.A2
Park St at Bowen Cr (North Flow)	FE3036R	WG3036.A2
St George Road north of Clark St	FE3037	WG3037.A1
Heidelberg Rd at Merri Ck (East Flow)	FE3038R	WG3038.A2
Moreland Rd at Moonee Ponds Ck (East Flow)	FE3039R	WG3039.A2
Western Transfer Main Sharps Rd east of Broadmeadows Rd (East Flow)	FE3058R	WG3058.A2
M9 Gaffney St at Moonee Ponds Ck (East Flow)	FE3063R	WG3063.A2
M70 Gaffney St at Moonee Ponds Ck (East Flow)	FE3064R	WG3064.A2
Park St West Of Lygon St (North Flow)	FE3079R	WG3079.A2
Merri Ck - Westgarth Mains	FE653	WG653.A1
Tullamarine/WRWA Offtake	FE3093	WG3013.A5
Adjustments		
Change in Greenvale Zone Storage		WR32.A102 + WR64.A100
Change in North Essendon Zone Storage		WR6.A100 + WR43.A103
Waste by MWC within City West Water		-

SCHEDULE 7
MWS QUALITY MANAGEMENT SYSTEM FOR DRINKING WATER QUALITY

1. ACCREDITED STANDARDS AND LEGISLATION

- (a) MW must:
 - (i) manage all public health and environmental risks associated with providing the Water Supply Services in accordance with AS/NZ ISO 31000; and
 - (ii) maintain an Environmental Management System certified to ISO 14001; and
 - (iii) maintain a Quality Management System for Drinking Water Quality certified to AS/NZ ISO 9001; and
 - (iv) maintain compliance with the *Safe Drinking Water Act*.
- (b) The Quality Management System for Drinking Water Quality must:
 - (i) have 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:
 - any performance standard concerning water quality under this agreement;
 - or
 - 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

MW must assess all relevant risks associated with providing the Water Supply Services arising in all parts of MW's water supply system by employing methods comparable to a Hazard Analysis and Critical Control Point evaluation.

2.2 CWW's Risks

CWW must assess all relevant risks arising in CWW'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.

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 manage all risks,

are complementary and co-ordinated.

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

- (a) MW must effectively manage the risks 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) maintaining the transfer network including cleaning of 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.

SCHEDULE 8

PROTOCOLS

8.1 Protocol for Notification of changes to Disinfection Setpoints between City West 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 City West Water's customers and compliance with City West Water's licence requirements.

Melbourne Water and City West 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 CWW 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 City West Water's Operating Representative. Current setpoints are shown in the monthly customer report.

Primary Disinfection Plant	Min. Setpoint
Winneke	0.55
Silvan Preston	1.00
Greenvale St. Albans	0.80
Greenvale Yuroke	0.90
Yan Yean Treatment Plant	0.50
Silvan Waverley	1.00
Silvan Olinda	1.00
Cardinia 1700 main	0.65

4. Notification of Setpoint Changes for Primary and Secondary Disinfection Plants supplying CWW Customers.

No notification required.

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

Silvan Olinda Silvan Waverley Cardinia 1700 main
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Notification to and approval from City West 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. City West Water or Melbourne Water shall indicate on the notification of works form the proposed duration of the new setpoint.

Greenvale - Yuroke St Albans (Secondary Disinfection) Cowies Hill (Secondary Disinfection)
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Notification and approval from City West 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.

Winneke (CWW, YVW) Yan Yean Treatment Plant* (CWW, YVW) Silvan Preston (CWW, YVW, SEW) Greenvale St. Albans (CWW, YVW)

Notification and approval from CWW is required only when Yan Yean water is supplied directly to CWW zones (emergency supply scenarios).

8.2 Protocol for Installing, Maintaining, Operating, Reading and Testing Bulk Water Billing meters between City West Water and Melbourne Water

1. Principles

Melbourne Water Corporation (MWC) is responsible for the measurement of Bulk Water supplied to City West Water Limited (CWW) 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 CWW 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 CWW.

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 diameter downstream.

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

New billing meters will be included in the Formulae for Determining Water Supplied to CWW (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 CWW. 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 CWW. 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 CWW. 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 CWW, 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 CWW 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 CWW 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 CWW as provisional totals.

Weekly volumes for calculating CWW'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.

Where there is an extended period without telemetry data and the problem is not with the flowmeter probe or transmitter and totalised flow data is available, the on-site totalised flows will be utilised in calculating weekly billing rather than estimations based on historical data.

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8. Auditing.

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