

Drought Response Plan

for

South East Water Corporation

25 June 2012

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DROUGHT RESPONSE PLAN

Preamble

Background

City West Water Corporation, South East Water Corporation and Yarra Valley Water Corporation (the Metropolitan **Corporations**) are established under the *Water Act 1989* to provide water and sewerage services throughout metropolitan Melbourne.

Under their Statement of Obligations, each Corporation must prepare a Drought Response Plan. The broad purpose of a Drought Response Plan is to ensure a timely and effective short-term response to the occurrence of water shortage, with the aim of minimising the impacts (social, economic, and environmental) of such shortages. The Drought Response Plan may include regulating the use of water via a By-law for water restrictions.

Drought Response Plans have been an important mechanism to assist in the management of Melbourne's water resources in times of shortage. Below-average streamflows into Melbourne's storages combined with the lowest recorded annual streamflows in 2006, resulted in water restrictions being implemented for six consecutive years between 2006 and 2012.

The length of this period of restrictions cannot be regarded as a short-term response to the occurrence of water shortage. The restrictions imposed achieved better than the savings forecast in the Corporations' previous Drought Response Plans. This was achieved as a result of broad community support for the approach during the period of water shortage. In the light of this, the Corporations, in consultation with Melbourne Water, agreed that:

- A new decision-making framework was required with the aim of ensuring that periods of restrictions are as short as possible. The Water Outlook (first released in December 2011), and the Annual Action Plans, enabled by this Plan represent this new decision-making framework.
- The restrictions on the use of water did not require wholesale change. However the By-law, which sets out the four stages of restrictions, reflects minor improvements to the former restrictions based on community and stakeholder feedback, and a streamlined layout for ease of reference.

Restrictions

The restrictions in the By-law apply to water that is supplied by main water supply works, regardless of how that water is delivered. The restrictions also apply to any water that is a mix of this "mains" water and other water, for example, if a tank of rain water is topped up with mains water, the restrictions apply to the use of all of the mixed water in the tank. The restrictions do not apply in relation to recycled or reclaimed water, greywater or stormwater.

Water is an essential resource for maintaining life. The restrictions in the By-law therefore do not restrict the use of water for indoor purposes such as drinking, washing, cleaning or sanitation. Also, despite any restrictions in the By-law, water can be used at any time:

- for human health requirements;
- for watering of stock and animals;
- for fire fighting;
- for the safety, but not the cleaning, of vehicles and equipment; and
- for cleaning required as a result of an accident, fire, health hazard, safety hazard or other emergency (in accordance with the permitted methods).

Where a restriction relates to a specific use of water, that restriction applies regardless of whether the use is indoors or outdoors. For example, indoor pools and fountains and undercover nurseries are covered by the same restrictions as equivalent outdoor facilities. However, water cannot be used outdoors for any purpose except in accordance with the restrictions in the By-law or with the written permission of South East Water. This means that unless the restrictions in the By-law specify rules about the way in which water can be used outdoors for a particular purpose, then water cannot be used for that purpose.

Wherever possible, the restrictions in the By-law are designed to be simple, easy to understand and straightforward to follow. For example, outdoor watering is restricted to "alternate days", which means odd numbered properties can be watered on odd numbered dates and even numbered (or no numbered) properties can be watered on even numbered dates. Everyone gets to water on the 31st of any month and the 29th of February.

The restrictions are also designed to build upon the common sense rules set out in the Permanent Water Saving Plan of South East Water, which encourage the efficient use of water on an ongoing basis. For example, wherever restrictions in the By-law allow for water to be used from a hand-held hose for any purpose, that hose must be leak-free and used with a trigger nozzle, consistent with the permanent water saving rules.

Contravention of the restrictions is an offence under the Water Act 1989, and so penalties may apply.

Exemptions from the restrictions in the By-law may be granted in certain circumstances. This Plan sets out the principles that South East Water will take into account when considering applications for exemptions from particular restrictions.

This Plan also provides for water to be used in accordance with a Water Use Plan approved by South East Water, despite the restrictions under the prevailing stage of restrictions. Water Use Plans will only be approved where the use of a Water Use Plan is expressly permitted for the particular use of water under the relevant stage of restrictions, or where it is required as part of an application for an exemption.

Operative Provisions

1. AUTHORISING PROVISIONS

This Plan was made under the Statement of Obligations and applies to the water District of South East Water Corporation.

2. PURPOSES

The purposes of this Plan are to:

- (a) promote the efficient use and conservation of water; and
- (b) explain how South East Water, in cooperation with the other Metropolitan Corporations and Melbourne Water, will respond in times of water scarcity; and
- (c) specify principles for considering applications for exemptions from particular restrictions.

3. DEFINITIONS AND INTERPRETATION

3.1 Definitions

The definitions set out below apply in this Plan, unless the contrary intention appears.

"Act" means the *Water Act 1989*.

"Action" means an action aimed at reducing demand or increasing supply of water including, but not limited to, the imposition of restrictions.

"Action Point" means the volumes of Total System Storage delineating the High Zone, Medium Zone and Low Zone as set out in sub-clause 5.3.

"Annual Action Plan" means a list of Actions that are to be implemented in the first 12 months of a Water Outlook Period developed in accordance with clause 6.

"By-law" means South East Water Corporation Water Restrictions By-law 001/2012.

"City West Water" means City West Water Corporation ABN 70 066 902 467.

"demand" means the volume of water delivered to customers (whether charged for or not) by a Corporation.

"Department" means the Victorian government department responsible for the administration of the *Water Industry Act 1994* and the *Water Act 1989*.

"district" means one of the following water supply districts serviced by South East Water or part of any such district as specified by South East Water: The water district of South East Water Corporation.

"Drought Response Plan" means a drought response plan prepared under the Statement of Obligations for South East Water.

"garden area" means any land upon which vegetation of any kind, including trees, other than lawn, grows or is cultivated, for other than commercial purposes. *See "lawn area"*.

"greywater" means waste water from bath tubs, showers, laundry troughs and clothes washing machines, but excludes water from kitchens, dishwashing machines and toilets.

"High Zone" means the zone delineated by the range of Total System Storage levels in the corresponding Action Point in the table in sub-clause 5.3, as at 30 November.

"Integrated Water Cycle Strategy " means a strategy (previously known as a **Water Supply Demand Strategy**) prepared collectively by the Metropolitan Corporations and Melbourne Water in accordance with their respective Statements of Obligations.

"lawn area" means any land, grassed or sown with grass seed but excludes any playing surface. *See "garden area"*.

"Low Zone" means the zone delineated by the range of Total System Storage levels in the corresponding Action Point in the table in sub-clause 5.3, as at 30 November.

"Medium Term Action Plan" means a list of Actions that provides an indication of Actions that may be necessary beyond the first 12 months of the Water Outlook Period.

"Medium Zone" means the zone delineated by the range of Total System Storage levels in the corresponding Action Point in the table in sub-clause 5.3, as at 30 November.

"Melbourne" means the Melbourne metropolitan area in relation to which City West Water, South East Water and Yarra Valley Water have a water supply district.

"Melbourne Water" means Melbourne Water Corporation.

"Metropolitan Corporations" means City West Water, South East Water or Yarra Valley Water and Corporations refers to the three Corporations collectively unless the context requires otherwise.

"Minister" means the Victorian Government Minister responsible for administration of the *Water Act 1989* (Vic) and *Water Industry Act 1994* (Vic).

"Ministerial Guidelines" means Ministerial Guidelines for Developing and Implementing a Drought Response Plan 1998.

"particular playing surface" means:

- (a) a turf wicket for competition cricket;
- (b) a turf practice wicket for cricket but only if an alternative practice wicket that does not require watering (such as a synthetic wicket) is not available;
- (c) a lawn or other type of running track (whether for use by humans or animals);
- (d) a lawn, en tout cas, or other type of tennis court other than a concrete, bitumen or asphalt tennis court;
- (e) a baseball or softball diamond, including the infield and any en tout cas running area;

- (f) a hockey or lacrosse pitch;
- (g) a green for lawn bowls or croquet or similar sport; or
- (h) the penalty areas of a soccer pitch; or
- (i) a golfing tee or green (but not fairways or approaches),

at a sporting or recreational facility that is:

- (i) for public, commercial or general community use; or
- (ii) associated with a university, school or other educational institution, and
- (j) a soft-fall area at a child-care facility or public playground,

but does not include any part of a sporting or recreational facility associated with a private club or similar private organisation.

"Plan" means this plan, being South East Water's Drought Response Plan

"playing surface" means any outdoor area used or capable of being used for any organised sport or recreation.

"reclaimed water" means water supplied by South East Water that is neither potable water nor recycled water, but is recovered from sources such as stormwater.

"recycled water" means treated sewage or trade waste, supplied by South East Water.

"restrictions" means a restriction or prohibition on the use of water contained in Schedule 1 of the By-law.

"South East Water" means South East Water Corporation ABN 89 066 902 547.

"stage of restrictions" means the four stages of restrictions on the use of Water contained in By-law, or any one of those stages as the context requires.

"Statement of Obligations (SoO)" means a Ministerial directive issued under section 4I of the *Water Industry Act 1994* that imposes obligations on a Metropolitan Corporation in relation to performance of its functions and exercise of its powers.

"storage capacity" means the lesser of 1,812,175 ML or the sum of the capacity of the following reservoirs at full supply level - Thomson, Cardinia, Upper Yarra, Sugarloaf, Silvan, Tarago, Yan Yean, Greenvale, Maroondah and O'Shannassy Reservoirs.

"Total System Storage" means the combined volumes of the water held in storage and available from the Water Supply System to which each Corporation has a legally enforceable right or entitlement at that point in time but excluding water to which the Metropolitan Corporations hold notional future rights (e.g. desalinated water subject to a forward order) unless agreed otherwise by the Metropolitan Corporations and Melbourne Water.

"warm season grass" means Buffalo, Couch or Kikuyu grass varieties that are appropriate for use in a lawn area.

"Water" means:

- (a) water supplied by the works of South East Water or any other water corporation (including reticulated systems, stand pipes, hydrants, fireplugs and aqueducts) whether or not that water is delivered directly to the location of its use via those works or is delivered by alternative means including a water tanker; and
- (b) a mix of:
 - (i) the water described in paragraph (a); and
 - (ii) any other water, including the water described in paragraphs (c)-(f),

but does not include:

- (c) recycled or reclaimed water;
- (d) greywater;
- (e) stormwater; or
- (f) rainwater collected by an occupier of land in a rainwater tank from the roof of a building on that land, provided that rainwater within in the tank is not supplemented in anyway by Water (defined in paragraphs (a) and (b) above).

"water corporation" means a water corporation as defined in the *Water Act 1989*.

"Water Outlook Period" means the forthcoming five year period from 1 December each year, which corresponds to the commencement of the WO pursuant to clause 5.

"Water Supply Objective" means the objective of providing water security by ensuring that a hydrological assessment of the Water Supply System indicates that expected customer needs can be met for the forthcoming five year period without Total System Storage entering the Low Zone.

"Water Supply System" means any plant, equipment, inflows, hydrological dynamics, receptacle or other device involved in manufacturing, harvesting, treating and/or distributing potable water throughout the Metropolitan Corporations' collective districts.

"Water Use Plan" means a document, in writing or by plans, prepared to the satisfaction of South East Water which governs the use of Water for specified purposes, and for the specified stage of restrictions.

"WO" means a Water Outlook for the relevant Water Outlook Period, prepared in accordance with clause 5.

"Yarra Valley Water" means Yarra Valley Water Corporation ABN 93 066 902 501.

3.2 Interpretation

- (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 provision of a document or agreement, is to that document, agreement or provision as amended, supplemented, replaced or novated;
 - (iii) a party to any document or agreement includes a permitted substitute or 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) If a word is defined, another part of speech has a corresponding meaning.
- (d) 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.
- (e) An interpretation that would promote the efficient use of water must be preferred to an interpretation that would not promote such use.

4. COLLABORATIVE WORKING RELATIONSHIPS

The Corporations and Melbourne Water have agreed to take a cooperative and coordinated approach to drought response including:

- (a) prompt and timely meetings with the other Corporations and Melbourne Water whenever it is forecast that the Water Supply Objective may not be satisfied during a current or forthcoming Water Outlook Period;
- (b) joint development of WOs;
- (c) joint development of Annual Action Plans and Medium Term Action Plans; and
- (d) consistency in the imposition of stages of restrictions.

5. WATER OUTLOOKS

5.1 Explanation

- (a) The Water Outlook (**WO**) is the mechanism used by the Corporations and Melbourne Water to monitor and analyse the Water Supply System, trends in demand and the system's ability to meet the Water Supply Objective.

- (b) Where a WO indicates that the existing system cannot ensure the Water Supply Objective, Actions may be implemented in accordance with an Annual Action Plan to improve water security.

5.2 System Monitoring

For the purpose of informing each WO, the Corporations will seek from Melbourne Water:

- (a) relevant climate forecasts produced by the Bureau of Meteorology;
- (b) simulations of the likely inflows (based on streamflow scenarios as determined by Melbourne Water and the Department in consultation with the Corporations pursuant to clause 1 in Schedule 1); and
- (c) assessments of the expected storage volumes of reservoirs managed by Melbourne Water, taking into account the likely demands for water as forecast by the Corporations,

for a period of five years or such other period agreed to by Melbourne Water and the Corporations.

5.3 Outlook Zones and Action Points

The WO will provide an overview of Total System Storage at the commencement of the Water Outlook Period with reference to Action Points. The Action Points delineate the High, Medium and Low Zones as set out in the table below. The applicable Zone for the first 12 months of the Water Outlook Period is determined at 30 November for the Period commencing on 1 December of that year.

Zone	Description	Action Points
High Zone	The Water Supply System can satisfy the Water Supply Objective.	Total System Storage is equal to or greater than 980GL or 54.1% of storage capacity <i>at 30 November</i>
Medium Zone	The Water Supply System cannot presently satisfy the Water Supply Objective. Actions will be implemented to reduce demand and/or improve supply.	Total System Storage is less than 980GL or 54.1% of storage capacity (High Zone) and greater than or equal to 575GL or 31.7% of storage capacity (Low Zone) <i>at 30 November</i>
Low Zone	The Water Supply Objective has not been met. Extreme circumstances are deemed to have occurred and a wider range of supply and demand Actions will be implemented. Critical human needs must be maintained. As a minimum response, Stage 3 restrictions will be implemented.	Total System Storage is less than 575GL or 31.7% of storage capacity <i>at 30 November</i>

5.4 Action Points

- (a) The Action Points for each Zone are as set out in sub-clause 5.3 or as otherwise agreed in accordance with paragraph (b).
- (b) The Corporations in consultation with Melbourne Water may seek to amend the Action Points of any or all Zones after considering any changes to:
 - (i) the total number of serviced properties in the areas specified for the Corporations; and
 - (ii) demand for water and savings from restrictions as projected by the Corporations; and
 - (iii) operating procedures for conserving or delivering water; and
 - (iv) the Water Supply System (either functionally or operationally).

5.5 Amendment of Action Points

For the avoidance of doubt, an amendment to an Action Point constitutes a variation to this Plan and must be made in accordance with the requirements for varying a Drought Response Plan.

5.6 Development of the Water Outlook

- (a) Each year, the Corporations will collaborate with each other and Melbourne Water and produce a WO that provides a forward view of the supply-demand balance for water in Melbourne, after considering a range of factors, including but not limited to :
 - (i) Total System Storage over the Water Outlook Period; and
 - (ii) past and forecast weather and catchment conditions; and
 - (iii) past and forecast inflows to the Water Supply System; and
 - (iv) past and forecast trends in demand; and
 - (v) demand for water and savings from Actions, including restrictions, as projected by the Corporations; and
 - (vi) investments and works that are to be undertaken in accordance with the prevailing Water Supply Demand Strategy; and
 - (vii) Actions, including restrictions, that may be implemented in accordance with this Plan.
- (b) The development of the WO must incorporate the core processes outlined in Schedule 1.
- (c) The WO must be produced before, and will commence on, 1 December each year.

5.7 Publication of a Water Outlook

By 1 December each year, South East Water will publish on its website:

- (a) the WO for the Water Outlook Period commencing on that day;

- (b) the Annual Action Plan for the first 12 months of that Period; and
- (c) the Medium Term Action Plan for the remainder of that Period.

6. ACTION PLANS

6.1 Development of an Annual Action Plan

- (a) The Corporations and Melbourne Water must, as part of the WO, prepare an Annual Action Plan for the first 12 months of the Water Outlook Period.
- (b) The Annual Action Plan will include Actions to be implemented between 1 December in that year and 30 November in the following year and will identify when and how those Actions will be implemented.
- (c) The Annual Action Plan may stipulate criteria and conditions, including but not limited to, Total System Storage levels, water saving goals or other measures, pursuant to which an Action may be implemented, varied or ceased during the relevant year.
- (d) Where the Annual Action Plan includes the imposition of a stage of restrictions, the procedures in this Plan, the By-law and the Act will be followed to implement and lift the stage of restrictions.

6.2 Medium Term Action Plans

- (a) In addition to the Annual Action Plan, the Corporations and Melbourne Water must, as part of the WO development process, develop a Medium Term Action Plan that provides an indication of Actions that may be necessary beyond the first 12 months of the Water Outlook Period.
- (b) The Medium Term Action Plan will be reviewed each year and used as an input into the development of the Annual Action Plan for the relevant Water Outlook Period.

6.3 Assessment of Actions for inclusion in the Action Plans

- (a) The development of an Annual Action Plan and a Medium Term Action Plan will require the consideration of a range of factors including but not limited to:
 - (i) the current Integrated Water Cycle Strategy; and
 - (ii) current and forecast Total System Storage levels; and
 - (iii) performance of the Water Supply System; and
 - (iv) the projected volume of water to be saved or delivered by the Actions to be included in the relevant Action Plan; and
 - (v) the volume of water required to return Total System Storage to or keep Total System Storage within, the High Zone; and
 - (vi) weather and catchment conditions; and
 - (vii) trends in demand; and

- (viii) demand for water forecast by the Metropolitan Corporations; and
 - (ix) other Actions that may be implemented in accordance with this Plan; and
 - (x) information gathered during the previous 12 months.
- (b) When Total System Storage is in the Low Zone (as at 30 November), the Annual Action Plan must include the imposition of a minimum of stage 3 restrictions from 1 December in that year.

7. UPDATING A WO AND ANNUAL ACTION LIST

- (a) The Metropolitan Corporations and Melbourne Water may amend a WO, Annual Action Plan or Medium Term Action Plan, at any time where there is, or is likely to be, a material change to any of the factors included in items (i) – (x) of paragraph 6.3(a).
- (b) Notice of amendments to a WO, Annual Plan or Medium Term Action Plan must be published by South East Water on its website within a reasonable period of the amendment being made.

8. ADMINISTRATION OF RESTRICTIONS

8.1 Cooperation between the Metropolitan Corporations

South East Water will work collaboratively with the Metropolitan Corporations to ensure consistency in the application of restrictions throughout Melbourne. South East Water must:

- (a) consult all other Metropolitan Corporations about its policy for granting exemption(s) from any restriction and use its best endeavours to adopt policies consistent with each other Corporation's; and
- (b) use its best endeavours to ensure that its decisions in relation to applications for exemptions are consistent with both its own previous decisions and those of other Metropolitan Corporations; and
- (c) ensure that its policies and decisions regarding exemptions are consistent with the agreed water saving objectives; and
- (d) cooperate with other Metropolitan Corporations in devising and implementing a joint community information campaign to reinforce the restrictions in place at any given time and in sharing the costs of that campaign, wherever appropriate.

8.2 Consistent enforcement processes

The Metropolitan Corporations must agree upon the form of enforcement processes to be undertaken in response to contraventions of restrictions imposed pursuant to the Plans (including notices as required under the Act).

9. VARIATIONS AND REVIEW OF THIS PLAN

9.1 Variations

South East Water will consult with the other Metropolitan Corporations and Melbourne Water before making any variation to this Plan.

9.2 Review

- (a) Within 12 months of the start of any period during which there is no stage of restrictions in force; or
- (b) as part of preparing a Water Supply Demand Strategy; or
- (c) at such other times as agreed by the Metropolitan Corporations and Melbourne Water,

the Metropolitan Corporations and Melbourne Water must jointly commission or undertake an evaluation of:

- (d) the financial, environmental and social consequences of this Plan; and
- (e) the effect of this Plan on operating the Water Supply System, water quality and future security of supply; and
- (f) the response of consumers; and
- (g) the appropriateness or otherwise of the Plan of each Corporation.

Schedule 1. Water Outlook Development

The development of the WO involves the following core processes including how the WO model is to be developed and issues that must be included (Steps 1 – 3).

1. Streamflow Scenarios

The streamflow scenarios (including the future climate scenarios) will be determined by Melbourne Water and the Department in consultation with the Metropolitan Corporations. Streamflow scenarios will be derived with reference to streamflow inputs adopted for other water resource planning processes.

In most years, it is expected that at least four streamflow scenarios will be defined (wet, average, dry and extreme).

2. Modelling Scenarios

The type and number of modelling scenarios may include any combination of:

- streamflow scenarios (see above); and
- demand projections, including restricted demand where appropriate; and
- environmental flow requirements; and
- operational constraints (e.g. Infrastructure utilisation); and
- planned Actions (including augmentation and demand management actions).

3. Demand Projections

Restricted or unrestricted demands

Either unrestricted or restricted demands can be used as an input to the water resource models. It is expected that on most occasions, the unrestricted demands will be used as an input to the model. The Metropolitan Corporations will provide the necessary demand projections required for WO modelling.

Other Water Corporations

It will be necessary for the other water corporations to provide demand projections (i.e. the volume of water that the other water corporations will require from the Melbourne Water Supply System in any year) for each of the defined climate scenarios (wet, average, dry and extreme dry). This may require the other water corporations to undertake independent water resource modelling of their supply systems in order to determine their demand from the Melbourne system under these scenarios.

The annual allocation (maximum available volume) from the Melbourne water supply system will be determined in accordance with the relevant bulk entitlement.

Environmental Flow Requirements

Environmental flow requirements must be accounted for in the model with priority over extractive uses. These flow requirements should include:

- scheduled environmental flow releases; and
- any estimated volume and timing of future environmental flow releases.

Planned Actions

It is important to ensure that any planned Actions that might be implemented during the Water Outlook Period are understood so that they can be factored into system modelling.

The planned Actions will be compared with the Actions established by the modelled scenarios to understand where Actions need to be brought forward.

Water Outlook – Action Points

Action Points to assist in the development of the WO will be established, in accordance with clauses 5.4 and 5.5 of the Plan. The Action Points will define a Low Zone, Medium Zone and High Zone in terms of Total System Storage.