



Drought Preparedness Plan

April 2017

Contents

| | |
|---|----|
| A. Drought preparedness | 3 |
| B. South East Water's adaptive management framework | 4 |
| C. Drought response plan | 8 |
| D. Collaborative working relationships | 9 |
| E. Variations and review of this plan | 11 |
| Schedule 1 operating provisions – drought response plan | 12 |
| Schedule 2 core process for developing water outlook | 18 |

A. Drought preparedness

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 and in accordance with the guidelines issued by the Minister for South East Water's Urban Water Strategy, the drought response plan must form part of a drought preparedness plan, also required to be developed in accordance with the minister's guidelines. The broad purpose of a drought preparedness plan is to ensure that the metropolitan water corporations and Melbourne Water jointly develop their preparedness strategies to meet the agreed levels of service (water supply objective) through an adaptive management framework. This framework comprises a number of inter-related long and short term processes; ensures that the community is informed and prepared about impending water shortage periods and South East Water has 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.

This Drought Preparedness Plan, incorporating the drought response plan for the purpose of South East Water's water restriction by-law 001/2012, is an important mechanism to assist in the adaptive management of Melbourne's water resources in times of shortage and may include regulating the use of water via a by-law for water restrictions.

Water shortage is a natural occurrence of climate dependant water supplies that service a city. Investments in climate independent sources, like the Victorian Desalination Project, and the investment in alternative, fit for purpose water sources go a long way to mitigate future dry scenarios. That said, shortage may still occur from time to time and the metropolitan corporations, Melbourne Water, customers and stakeholders need to be prepared.

In order to enhance Melbourne's preparedness, this Drought Preparedness Plan is predicated on the following key components:

- the preparedness of South East Water to optimise and manage its water portfolio to mitigate future uncertainty
- the capacity and ability of South East Water to promptly react to drought or water shortage events
- the preparedness of our customers, if such an event occurred, to manage their open spaces, gardens and other critical assets, and
- a shared commitment to ensuring critical community assets remain sustainable and viable.

In order to ensure our customers and stakeholders are prepared for periods of shortage, the metropolitan corporations will work with Melbourne Water, and will, collaboratively and individually, work with passive and active open space managers, owners of significant gardens and related key stakeholders to:

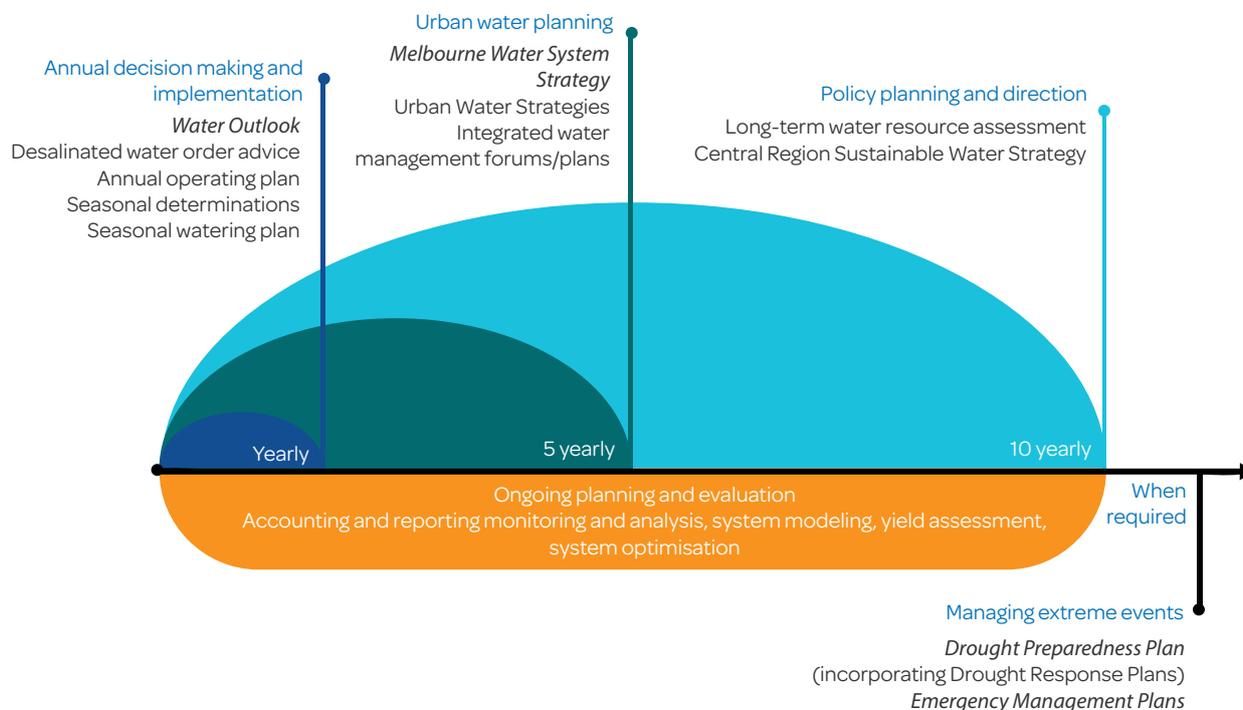
- ensure there is a shared understanding of the reliability of the system
- ensure there is a shared understanding of where critical assets are and the need to ensure their resilience
- assess local solutions, including the use of drought tolerant species and emergency water arrangements
- assess climate independent supply options for longer term resilience, and
- consider short term management responses, including the preparation of an approved water use plans and exemptions from restrictions, in periods of critical need.

B. South East Water's adaptive management framework

South East Water's approach to ensure its preparedness to meet the agreed levels of service, is undertaken through an adaptive management framework comprising a number of inter-related long and short term processes including:

1. The development of a 50-year Urban Water Strategy every five years (first one released 31 March 2017).
2. Support Melbourne Water's development of a Melbourne Water System Strategy (first one released 31 March 2017).
3. The joint publication of an Annual Water Outlook by 1 December each year which will include action plans for managing the water portfolio for the forthcoming year and the next 3 years.
4. Optimising the use of the Victorian Desalination Project to meet customer needs.
5. The preparation of an annual operating plan by Melbourne Water.
6. Ongoing stakeholder engagement, with a particular focus on creating preparedness and resilience for public open space managers and owners of other significant community assets to deal with uncertainty and extreme events.
7. A commitment to supplying critical human needs at all times.
8. The continued reinforcement of Permanent Water Saving Rules, commitment to the government's Target 155 program and the delivery of ongoing water efficiency programs.
9. If required, implement a restrictions regime, as per a published water restrictions by-law, and
10. Publish general guidelines for exemptions from permanent water rules and or restrictions imposed under the water restrictions by-law.

Schematically these processes can be represented below:



Urban Water Strategy

Each of the metropolitan water corporations is required to develop an urban water strategy. The purpose of each strategy is to identify the best mix of measures to provide water services to our customers now and into the future.

South East Water's Urban Water Strategy contains the following:

- a long-term outlook of 50 years with the objective to:
 - ensure safe, secure, reliable and affordable water and sewerage services that meet society's long term needs and their agreed levels of service (water supply objective)
 - encourage the sustainable use of water resources – including rainwater, stormwater and recycled water and rainfall-independent supplies in ways that are efficient and fit-for-purpose, whilst ensuring that public and environmental health is protected
 - enhance the liveability, productivity, prosperity and environment of our cities and towns
 - ensure that the water needs of environmental assets are transparently considered, and
 - provide for a transparent and rigorous decision-making process, with clear roles and responsibilities and accountabilities, which can adapt to the changing environment.
- actions which:
 - consider the total water cycle, consistent with the principles of integrated water management in the urban environment
 - support the development of resilient and liveable communities, including the preparation of plans for the protection of critical community assets and open spaces
 - balance social, environmental and economic costs and benefits
 - take account of the consequences and uncertainty associated with population growth and climate change and climate variability, and
 - specify the framework within which the metropolitan corporations will deal the short term uncertainties of water supply systems and the approaches to ensure ongoing resilience of customers, particularly in times of shortage.

Melbourne Water System Strategy

With a number of water corporations connected to Melbourne's water supply system, Melbourne Water is required to prepare a Melbourne Water System Strategy. Its objectives are similar to those for the urban water strategies however its key point of difference is providing information to water corporations and other stakeholders in regard to the long term security of the system as a whole after considering population growth over the 50-year period, trends in demand, climate scenarios impacting inflows to storages, and optimising the use of existing assets including the Victorian Desalination Project. This information will be critical for water corporations connected to the Melbourne water supply system, to optimise their water portfolio in order to defer any future augmentation as long as economically possible.

Water supply objective

The water supply objective of South East Water, the other metropolitan corporations and Melbourne Water, specifies the agreed level of services to provide to customers in regards to water security. The objective is to ensure 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, as defined in the following section.

Water outlook and action plans

The purpose of the Annual Water Outlook is to demonstrate whether the metropolitan water supply system can provide sufficient water security to meet the needs of customers in the short term, or whether action needs to be taken. The outlook will therefore confirm whether the prioritised list of actions for the next five years, as set out by the urban water strategies and Melbourne Water System Strategy, are still appropriate or whether short and or long term actions should be brought forward or deferred.

The structure of the zones is to ensure South East Water and other metropolitan corporations will meet their agreed levels of service (water supply objective) of ensuring customer needs can be met for the forthcoming five-year period without total system storage entering the low zone. Actions may include taking water from the Victorian Desalination Project.

There are three zones – high, medium and low, and each has a range of actions that can be implemented. At the general level:

| Zone | Description | Generic actions |
|---|---|--|
| High zone Total system storage greater than 60% | The water supply system can satisfy the water supply objective. (Optimising supplies) | <ul style="list-style-type: none"> • Ongoing long term planning to maintain system security • Investment in alternative water sources, e.g. water recycling • Continued investment in efficiency programs, e.g. the government's Target 155 program • The use of the Victorian Desalination Project as required • Ongoing engagement with customers |
| Medium zone Total system storage between 40% and 60% | The water supply system cannot presently satisfy the water supply objective and actions will be implemented to reduce demand and / or improve supply (Take action) | <ul style="list-style-type: none"> • Longer term plans for augmentation will be brought forward and implemented if necessary • Increase the use of the Victorian Desalination Project • Increased use of customer behaviour and efficiency programs • Possible use of stage 1 and stage 2 restrictions |
| Low zone Total system storage below 40% | The water supply objective has not been met. Critical human needs must be maintained (Emergency) | <ul style="list-style-type: none"> • Investment in emergency supply options • Likely imposition of stage 3 and 4 restrictions • Maximise use of the Victorian Desalination Project • Expanded use of customer behaviour and efficiency programs |

As part of the development of the urban water strategies, the metropolitan corporations have reviewed the action points for the high, medium and low zones. The updated zones included in this drought preparedness plan reflect the retention of the current levels of service in the context of increased water demands due to population growth, the continued investment in alternative water sources and efficiency, the latest water system operations and water entitlements, and updated streamflow scenarios based on the latest departmental guidelines for climate change and drought planning.

Schedule 2 provides specific provisions and commitments in regard to the role, development and utilisation of the water outlook.

Optimising the use of the Victorian Desalination Project

South East Water, plus the other two metropolitan water corporations have the entitlements to use the Victorian Desalination Project in order to maintain the long term security for Melbourne. Following the release of the Annual Water Outlook, an assessment of trend in demands and climate outlook and streamflow scenarios, the metropolitan water corporations and Melbourne Water reach consensus on the need for an order. Melbourne Water consequently provides advice to the Minister for Water in March of each year on a binding order for the next financial year and non-binding order for the following two financial years. The Minister for Water places an order by 1 April each year by advising the operator of the Victorian Desalination Project of the binding order for the next financial year and non-binding order for the following two financial years.

Annual operating plan

In order to ensure the water supply objective is achieved in the most optimal manner, Melbourne Water prepares an annual operating plan – developed in consultation with all water corporations supplied by them – which outlines where water will be sourced from and how the system is expected to be operated to meet customer demands. The annual operating plan also includes a range of scenarios based on storage inflows and demand. Any Victorian Desalination Project order will be incorporated into the annual operating plan.

Drought response plan

As required under its statement of obligations and for the purpose of South East Water's water restriction by-law 001/2012, part C of this plan contains South East Water's drought response plan. Schedule 1 to this plan also outlines the operating provisions for the drought response plan.

Permanent Water Saving Plan

South East Water's Permanent Water Saving Plan contains a number of water saving rules that reflect the value the community places on water and describes a set of common sense rules to encourage the efficient use of "mains" water from the water supply system and avoid wasting this resource. These rules can be found on South East Water's website at <http://southeastwater.com.au/business/pwur/Pages/PWUR.aspx> and summarised below:

- when using a hand held hose, a trigger nozzle must be fitted
- water your gardens and lawns with a hose anytime or watering system from 6pm to 10am
- public gardens, lawns and playing surfaces can be watered anytime by hose, watering system between 6pm and 10am or in accordance with an approved water use plan
- fountains and water features cannot be used unless it recirculates water, and
- water can be used to clean hard surfaces for health and safety reasons, in the course of construction or once a season preferably with a high pressures cleaning device.

C. Drought response plan

General

This drought response plan is an important mechanism to assist in the management of Melbourne's water resources in times of shortage and is to be read in conjunction with South East Water's water statement of obligations (general) and water restriction by-law 001/2012.

Water restrictions by-law

The purposes of the by-law are to:

- promote the efficient use and conservation of water
- set out four stages of restrictions
- specify things that must not be done while each stage of restrictions persists
- specify principles for considering applications for exemptions from particular restrictions
- prescribe offences and penalties for the contravention of the by-law, including for which an infringement notice may be served
- prescribe classes of persons for the purpose of issuing infringement notices.

Restrictions

From time to time, restrictions of the use of water for certain purposes will be required. If such an action was required, the restrictions in South East Water's by-law apply to water that is supplied by mains water supply works, regardless of how that water is delivered. The restrictions also apply to any water that is a mix of 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, provided these are not mixed with mains water.

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 firefighting
- for the safety, but not the cleaning, of vehicles and equipment
- 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

In developing the by-law and the restrictions across customer groups and usage purposes, the restrictions were mindful of the need to manage:

- any significant economic and public health impacts
- possible damage to public open space and the activities they support, and
- any irreversible damage to private gardens.

Consequently, exemptions from the restrictions in the by-law may be granted in certain circumstances. This drought response plan sets out the principles (Schedule 1, clause 8) and criteria that South East Water will take into account when considering applications for exemptions from particular restrictions. One key element of this exemption process will be strong partnerships with local government to ensure key community open space assets, including gardens and sporting ovals, retain their availability to ongoing liveability and wellbeing, even in times of shortage. The same commitment will exist with other open space managers, garden and other agricultural enterprises and owners of other significant assets.

This drought response plan provides for water to be used in accordance with a water use plan approved by South East Water, in accordance with 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.

Specific requirements for the administration of restrictions, and approval of water use plans or exemptions, are outlined in Schedule 1.

Emergency management plans

This Drought Preparedness Plan will be complemented by the various emergency management plans outlining the strategies and procedures related to water shortages that have already been in place within the metropolitan corporations, Melbourne Water and other water entitlement holders.

The water restrictions by-law prohibiting certain uses may be invoked under such emergencies.

Collaboration and review

For the purposes of clarity, any reference to collaboration and or review of the drought response plan, will be in accordance with parts D and E of the drought preparedness plan.

D. Collaborative working relationships

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

- (a) joint development of annual water outlooks
- (b) joint development of annual action plans and medium term action plans
- (c) regular system monitoring by Melbourne Water providing advice on climate impacts, inflow conditions, and storage volumes of reservoirs managed by Melbourne Water
- (d) joint monitoring of past and forecast trends in water demand by the metropolitan corporations (and other water corporations) connected to the Melbourne's water supply system
- (e) coordinated implementation of actions and joint actions (e.g. if there is a likelihood of the total system storage entering the medium or the low zones within the 12-month storage outlook)
- (f) consistency in the imposition of stages of restrictions and exemptions; 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, and
- (g) collaboration with other water corporations as required.

E. Variations and review of this plan

South East Water is committed to ensure that this drought preparedness plan, including the drought response plan, and its adaptive management framework remains current to meet the needs of customers and stakeholders, therefore it will consult with customers and stakeholders and the other metropolitan corporations and Melbourne Water on an ongoing basis before making any variation to this plan. In consultation and collaboration with the other metropolitan water corporations and Melbourne Water (as outlined in part D of this plan), South East Water will:

- (a) review this plan, including the drought response plan:
 - within 12 months of the start of any period during which there is no stage of restrictions in force, or
 - as part of preparing or reviewing an Urban Water Strategy and or the Melbourne Water System Strategy, or
 - at such other times as agreed by the metropolitan corporations and Melbourne Water.
- (b) commission or undertake an evaluation of:
 - the financial, environmental and social consequences of this plan, and
 - the effect of this plan on operating the water supply system, water quality and future security of supply, and
 - the response of consumers, and
 - the appropriateness or otherwise of the plan of each corporation.

THIS PAGE INTENTIONALLY LEFT BLANK

Schedule 1

Operating provisions – drought response plan

1. This drought response plan was made under clause 6.4 of the statement of obligations (general) and applies to the water district of South East Water Corporation.

2. Purposes

The purposes of this drought response plan are to:

- (a) Outline South East Water's approach to managing its water portfolio to meet the service expectations of customers and stakeholders, and
- (b) promote the efficient use and conservation of water, and
- (c) outline how South East Water will work with customers in order to ensure their preparedness for periods of supply shortage, and
- (d) explain how South East Water, in cooperation with the other metropolitan corporations and Melbourne Water, will respond in times of water scarcity, and
- (e) 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, including part C - drought response 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 4.3.

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 5.

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.

critical community asset means an asset of a local government agency or similar open space manager that is critical to the liveability and values of a community.

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 Preparedness Plan means a Drought Preparedness Plan, which includes South East Water's drought response plan, prepared in accordance with ministerial guidelines for the development of urban water strategies and the Melbourne Water System Strategy 2016.

drought response plan means a drought response plan for the purpose of the water restriction by-law 001/2012.

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 4.3, as at 30 November.

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 4.3, 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 4.3, 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.

Melbourne Water System Strategy means a plan prepared by Melbourne Water in accordance with its statement of obligations (general) and that provides an overview of the security of the metropolitan Melbourne water supply system.

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 the development of urban water strategies and the Melbourne Water System Strategy, 2016.

plan means this plan, being South East Water's Drought Preparedness Plan, incorporating its drought response plan.

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 41 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, the northern victoria bulk entitlement subject to critical human need) unless agreed otherwise by the metropolitan corporations and Melbourne Water.

Urban Water Strategy means a strategy prepared by each of the metropolitan corporations in accordance with their respective statements of obligations and in consultation with 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),
 - (ii) and 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 water outlook pursuant to clause 4.

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.

water outlook means a water outlook for the relevant water outlook period, prepared in accordance with clause 4.

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. Water outlooks

4.1 Explanation

- (a) The water outlook is the mechanism used by the metropolitan 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 water outlook 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.

4.2 System monitoring

For the purpose of informing each water outlook, the metropolitan 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, 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 up to five years or such other period agreed to by Melbourne Water and the corporations.

4.3 Outlook zones and action points

The water outlook 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 1087GL or 60% of storage capacity at 30 November |
| 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 1087GL or 60% of storage capacity (high zone) and greater than or equal to 725GL or 40% of storage capacity (low zone) at 30 November |
| 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 preparedness, Stage 3 restrictions will be implemented. | Total system storage is less than 725GL or 40% of storage capacity at 30 November |

4.4 Action points

- (a) The action points for each zone are as set out in sub-clause 4.3 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), and
 - (v) long term climate change and streamflow data.

4.5 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 preparedness plan.

4.6 Development of the water outlook

- (a) Each year, the corporations will collaborate with each other and Melbourne Water and produce a water outlook 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 systems, 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 Urban Water Strategy for each corporation and the Melbourne Water System Strategy, and
 - (vii) the opportunity for the Victorian Desalination Project to enhance the achievement of the water supply objective, and
 - (viii) statement of short term water security and the

likelihood of restrictions over the coming period, and

- (ix) actions, including restrictions that may be implemented in accordance with this plan.
- (b) The development of the water outlook must incorporate the core processes outlined in Schedule 2.
- (c) The water outlook must be produced before, and will commence on, 1 December each year.

4.7 Publication of a water outlook

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

- (a) the water outlook 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.

5. Action plans

5.1 Annual action plan

- (a) Each corporation and Melbourne Water must, as part of the water outlook, 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) A metropolitan corporation's action plan may also include the identification of joint works and/or measures that would be undertaken by the metropolitan corporations and or Melbourne Water.
- (d) 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.
- (e) Where the annual action plan includes the imposition of a stage of restrictions, the procedures in Part C – drought response plan, and Schedule 1 in this document – operating provisions – drought response plan, the by-law and the act will be followed to implement and lift the stage of restrictions.

5.2 Medium term action plans

- (a) In addition to the annual action plan, the metropolitan corporations and Melbourne Water must, as part of the water outlook 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.

5.3 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 urban water strategies, and
 - (ii) the current Melbourne Water System Strategy, and
 - (iii) current and forecast total system storage levels, and
 - (iv) performance of the water supply system, and
 - (v) the projected volume of water to be saved or delivered by the actions to be included in the relevant action plan, and
 - (vi) the volume of water required to return total system storage to or keep total system storage within, the high zone, and
 - (vii) weather and catchment conditions, and
 - (viii) trends in demand, and
 - (ix) demand for water forecast by the metropolitan corporations and any other water corporation holding primary entitlements to the Melbourne supply system, and
 - (x) other actions that may be implemented in accordance with this plan, and
 - (xi) 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.

6. Updating a water outlook and annual action list

- (a) The metropolitan corporations and Melbourne Water may amend a water outlook, 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) – (xi) of sub clause 5.3 (a).
- (b) Notice of amendments to a water outlook, 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.

7. Administration of restrictions

7.1 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 corporations, 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.

South East Water will also work collaboratively with other corporations where necessary.

7.2 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).

8. Principles for exemptions

In considering exemptions under this Drought Preparedness Plan, incorporating the drought response plan, and by-law:

- (a) South East Water will be mindful of:
 - (i) significant economic impacts, and
 - (ii) damage to public open space and the activities they support, and
 - (iii) irreversible damage to private gardens.
- (b) Adopt the following general principles:
 - (i) manage exemption approvals to ensure security of supply in times of water restrictions, and
 - (ii) assist in minimising the economic, health and structural impact of water restrictions on customers and the community, and
 - (iii) implement policy and management processes / systems for exemptions, and
 - (iv) ensure consistency of policy interpretation for the consideration of exemptions.
- (c) Publish on its website any guidelines and forms to apply for general exemptions and particular exemptions.

Schedule 2

Core process for developing water outlook

The development of the water outlook involves the following core processes including how the water outlook model is to be developed and issues that must be included.

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

Unrestricted or restricted 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 water outlook 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 to other corporations 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 water outlook will be established, in accordance with sub clauses 4.4 and 4.5 of Schedule 1. The action points will define a low zone, medium zone and high zone in terms of total system storage.