

Report on Managing Water Quality and Salinity - Victoria

Victoria's annual report on the implementation of the water quality and salinity management plan (Schedule 12, Item 14)

Reporting context

The water quality and salinity management plan provides a Basin-wide framework of water quality objectives and targets for Basin water resources. The water quality and salinity management plan is set out in Chapter 9 of the Basin Plan and includes a list of the key causes of water quality degradation, water quality objectives for Basin water resources and water quality targets for long-term planning.

The purpose of this report is to monitor the extent to which the water quality and salinity management plan has been implemented. This report is a requirement of Chapter 13 of the Basin Plan and relates to Item 14 of Schedule 12.

Indicators for measuring success

Implementation of the water quality and salinity management plan is evaluated using the following five indicators:

- Recorded salinity at reporting sites is consistent with the salinity targets (**Indicator 14.1**)
 - Adequacy of the flushing of salt from the River Murray System to the Southern Ocean (salt export) (**Indicator 14.2**)
 - Governments are having regard to water quality and salinity targets when managing water flows (**Indicator 14.3**)
 - Governments are having regard to water quality targets when making decisions about using environmental water (**Indicator 14.4**)
 - Measures governments take to achieve end-of-valley salinity targets (**Indicator 14.5**)
-

Indicator 14.1: Salinity at reporting sites is consistent with the salinity targets in s9.14(5)

14.1.1. Proportion of days where measured salinity met the target EC at reporting sites

Response
No response required from Basin Governments or CEWH. MDBA report only.

Indicator 14.2: Adequacy of flushing to provide salt export

14.2.1: Estimated Salt Export (Tonnes) from the River Murray System to the Southern Ocean

Response

No response required from Basin Governments or CEWH. MDBA report only.

14.2.2. Flushing Adequacy

Response

No response required from Basin Governments or CEWH. MDBA report only.

Indicator 14.3: Managing water flows with regard to water quality targets (s9.14)

14.3.1: What procedures and tools were in place to enable water quality targets (dissolved oxygen, recreational water quality and salinity) to be met

Response

Under s41(2) of the Water Industry Act 1994 (Vic), the Minister for Water issues a Statement of Obligations (SOO), which specifies the obligations of water authorities in relation to the performance of their functions, and exercise of their powers. The most current SOO was issued by the Victorian Minister for water on 16 September 2012, and applies to the water authorities operating in the state's share of the Murray-Darling Basin:

http://www.g-water.com.au/downloads/aboutUs/Statement_of_Obligations_September_2012.pdf

The SOO requires Victorian water authorities to ensure that the risks associated with the functions they perform, and the services they provide are identified, assessed, prioritised and managed. This includes the development of a specific emergency management plan for risks to water quality, and discrete requirements for reporting on any blue green algae blooms impacting on water supply or delivery services.

14.3.2: Statement of how procedures and tools were used to meet water quality targets

Response

Statement from Goulburn-Murray Water

GMW had regard to the dissolved oxygen targets of section 9.14(5)(a) by:

- Maintaining the minimum flow provisions of the bulk entitlements for the Ovens, Broken, Goulburn, Campaspe and Loddon bulk entitlements
- Contributing to the real-time and spot monitoring of dissolved oxygen concentrations at locations along the Victorian tributaries to the River Murray (eg Rice's Weir, Goulburn Weir)
- Including dissolved oxygen concentration data in daily data used for operational planning
- Distributing regular external reports on dissolved oxygen concentrations at strategic locations and issuing extra reports as data trended towards

Response

target levels

- Participating in operations advisory groups for environmental watering events including the Barmah-Millewa Forest, Gunbower Forest and Hattah Lakes
- Maintaining the availability of the 30 gigalitre reserve in the Goulburn system for mitigation of poor water quality

GMW had regard to the recreational water quality targets of section 9.14(5)(b) by:

- Operating as the delegated Regional Coordinator for blue-green algae (BGA) management across northern Victorian water systems
- Participating in the Murray Regional Algal Coordinating Committee
- Maintaining regional BGA management plans for northern Victorian water systems
- Maintaining local BGA management for GMW-operated water storages and irrigation areas
- Contributing to the monitoring of BGA concentrations at key locations in Victorian tributaries to the River Murray
- Distributing regular external reports on BGA concentrations at key locations and issuing extra reports (including media releases for public information) as data trended towards target levels
- Maintaining the availability of the 30 gigalitre reserve in the Goulburn system for mitigation of poor water quality

Note: GMW generally uses the term blue-green algae in operations instead of cyanobacteria

GMW had regard to the salinity targets of section 9.14(5)(c) by:

- Maintaining the minimum flow provisions of the bulk entitlements for the Ovens, Broken, Goulburn, Campaspe and Loddon bulk entitlements
- Contributing to the monitoring of salinity concentrations (real-time and spot measurement) at locations along the Victorian tributaries to the River Murray (eg Rice's Weir, Goulburn Weir)
- Including salinity concentration data in daily data used for operational planning
- Participating in operations advisory groups for environmental watering events including the Barmah-Millewa Forest, Gunbower Forest and Hattah Lakes
- Maintaining the availability of the 30 gigalitre reserve in the Goulburn system for mitigation of poor water quality.

Statement from Grampians-Wimmera Mallee Water

Dissolved Oxygen Targets

GMMWater had regard to dissolved oxygen targets by:

- Releasing water to the Wimmera River and its tributaries in accordance with the passing flow provisions in the Wimmera-Glenelg Rivers environmental entitlement and the requests received from the Wimmera Catchment Management Authority and Victorian Environmental Water Holder.
- Contributing to the monitoring of dissolved oxygen levels at various locations.
- Water quality remains a key objective within the Wimmera-Mallee Headworks System Storage Management Rules so that it is fit for purpose for urban, industrial, stock and domestic and environmental use.

Response

Blue-green Algae Targets

GWMWater had regard to the blue-green algae (BGA) targets by:

- Developing and continuously updating a range of procedures and policies that are used to detect, identify and deal with blue-green algae within its water storages, including headworks storages.
- Operating as the delegated regional coordinator for blue-green algae management.
- Distributing regular internal and external reports about blue-green algae outbreaks, including media releases and signage.

14.3.3. Case study

Response

Indicator 14.4: How were water quality targets taken into account when making decisions about using environmental water

14.4.1: Statement that procedures and tools were in place

Response

Risks related to watering, including those related to water quality, were identified and assessed in seasonal watering proposals developed by CMAs and the *Seasonal Watering Plan 2013-14* developed by the VEWH.

A shared/overarching risk management framework is currently being developed in Victoria. This will incorporate all partners in the environmental watering program. The framework aims to further develop and improve understanding of current risk management approaches used by different organisations, in addition to improving the management of inter-agency risk.

14.4.2. Statement of how procedures and tools were used

Response

Risks identified in the VEWH's Seasonal Watering Plan were assessed and managed by delivery partners, including waterway managers and storage managers, throughout the delivery of environmental water.

Where water quality risks were identified, monitoring of water quality occurred and mitigating actions, including altering the timing of events, were implemented as required.

Please refer to 14.3.2, above, for additional information related to the management of environmental water.

14.4.3: Case study

Response

Indicator 14.5: Implementation of measures to achieve end-of-valley salinity targets

No response required from Basin governments or CEWH. MDBA reports on this indicator on behalf of Basin governments, drawing on their Basin Salinity Management Strategy implementation reports against end-of-valley targets

14.5.1: Types of measures implemented**Response**

No response required from Basin Governments or CEWH. MDBA report only.

14.5.2. Summary of objectives, activities and achievements with regard to each measure implemented**Response**

No response required from Basin Governments or CEWH. MDBA report only.
