Report on Managing Water Quality and Salinity – Queensland

The Queensland 2014–15 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:

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

Basin governments report only on Indicators 14.1 and 14.2. The Commonwealth Environmental Water Holder (CEWH) reports only on Indicator 14.2.

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

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

Response

Due to the unregulated nature of the majority of rivers in the Queensland Murray Darling Basin (QMDB) active management of unsupplemented flows is not possible.

However there are some medium sized storages within the QMDB that supply irrigation water such as Leslie Dam, Beardmore Dam, Coolmunda Dam and Glenlyon Dam.

The relevant targets in s 9.14(5) of the Basin Plan are:

a) To maintain dissolved oxygen at the target value of at least 50% saturation
b) The targets for recreational water quality ie that the values for cyanobacteria cell counts or biovolume meet the guideline values set out in the Guideline for Managing Risks in Recreational Water, and
c) The levels of salinity at the Darling River downstream of Menindee Lakes should not exceed 830 EC 95% of the time.

Queensland has no evidence that releases from any of these storages have the potential to contribute to a decrease of dissolved oxygen saturation to below 50% thus causing a blackwater event.

Also Queensland has no evidence that releases from any of these storages have the potential to raise the values for cyanobacteria cell counts or biovolumes above the relevant guideline values. If cyanobacteria are present in storages, the mixing of water that happens when releases are made produces unfavourable conditions for cyanobacteria downstream of the release point.

Similarly Queensland has no evidence that releases from any of these storages have the potential to alter the levels of salinity downstream of Menindee Lakes.

14.1.2: Statement that procedures and tools were used to meet water quality targets

Response

Due to the unregulated nature of the majority of rivers in the Queensland Murray Darling Basin (QMDB) active management of unsupplemented environmental water is not possible.

14.1.3. Case study

Response

N/A

14.2: Making decisions about using environmental water with regard to water quality targets (s9.14)

14.2.1. What procedures and tools were in place to enable water quality targets to be met?

Response

Due to the unregulated nature of the majority of rivers in the Queensland Murray Darling Basin (QMDB) active management of unsupplemented environmental water is not possible.

14.2.2. Statement that procedures and tools were used to meet water quality targets

Response

N/A

14.2.3. Case study

Response

N/A