Report on Managing Water Quality and Salinity – Australian Capital Territory

The Australian Capital Territory's 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

The *ACT Environmental Protection Regulations 2005* sets out a range of water quality objectives and criteria related to the protection of each designated environmental and use value as prescribed in the ACT's *Territory Plan*. A set of secondary or loading water quality criteria is also identified in the *Regulations* in respect to the urban lakes, the Murrumbidgee River and Burrinjuck Reservoir. The *ACT Guidelines for Recreational Water Quality 2010* monitors blue green algal blooms and high levels of faecal coliforms throughout Canberra's lakes. In 2012, the National Capital Authority released their revised *Lake Burley Griffin Water Quality Management Plan*, containing recommended water quality guides in respect to protection of lake ecosystems, aesthetic values, recreational waters, and irrigation water supply that specifically targets the waters of Lake Burley Griffin. The ACT Aquatic Species and Riparian Zone Conservation Strategy 2007 seeks to maintain and improve the natural integrity of the rivers and riparian zones in the ACT within a regionl context. In fact the strategy was reviewed in 2013 which highlighted activities that should lead to more native fish and plants, less erosion, improved water flow and fewer weeds in the longer term.

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

Response

Not only is there a comprehensive and integrated water quality planning and management framework in place for waters of the ACT and the Upper Murrumbidgee Basin, there are strong legislated requirements on Commonwealth and Territory Agencies to comply with meeting prescribed water quality criteria associated with designated uses and values of ACT, NCA and Upper Murrumbidgee Basin water uses and values.

Therefore, in the framework of the ACT, all stakeholders, including the MDBA, should have confidence that the requirements under the Basin Plan are being met.

14.1.3. Case study

Response

The recently released ACT Water Strategy (Striking the Balance, ESDD 2014a) clearly demonstrates the Territory's policy position towards continual development of the ACT to improve water management, including water quality, for the environment and human consumption. The Water Strategy identifies the strategies and the actions that will assist the ACT in achieving the water quality outcomes, which are aligned with the Basin water quality objectives. For example, Strategy 2 is to 'Protect and restore aquatic ecosystems in urban and non-urban areas' set out the three following actions: 1. Improve water quality and ecosystem health in the ACT and region's rivers, lakes, aquifers, ponds and wetlands; 2. Ensure appropriate management (volume, timing, and quality) of environmental flows; and 3. Strengthen compliance and enforcement for water resource management.

The ACT Water Strategy continues to follow a number of progressive policy positions that strengthen the sustainable management of water within the environment, such as the approach of the ACT's Water Resource Act 2007 that has the key principal of the environment is provisioned with water first, then the consumptive

water allocation is determined. Additionally, the environmental flow guidelines are set to determine the amount of water needed to maintain aquatic ecosystems of the ACT.

The Water Strategy not only contains required actions but measureable targets with indicators. The approach taken by the ACT to develop further procedures and tools provides a good example of policy development focused on water quality improvement.

In addition, the ACT's Basin Priority Project, Clean Water for Canberra, is focused upon improving water quality in its catchments (covering a range of urban catchments and streams flowing into the ACT) which in turn is expected to benefit the water quality of the Murrumbidgee River.

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

The ACT does not have any Held Enviornmental Water therefore the ACT does not make decisions about when and where to use HEW.

The only Planned Environmental Waters are within the water storage catchments managed by ICON Water.

In regard to environmental flow releases by ICON Water regulated throught the ACT environmental flow guidelines, a holistic approach was adopted for the setting of environmental flows (originally based on the work of Dr. A. H. Arthington). Although updated and improved, the approach within the guidelines identifies the essential features of the flow regime, including the natural variability, seasonal variation, floods and intermittent dry periods. The guideline specifies the ecological objectives for the territory's aquatic ecosystems and specifies the surface water rules to maintain the relevant aquatic ecosystems. These rules are conditions of the ICON Water licence to manage and extract water.

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

Response

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14.2.3. Case study

Response

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