

# Report on environmental watering coordination and principles – South Australia

South Australia's annual report on implementing the environmental management framework (Schedule 12, Item 10)

---

## Reporting context

The Basin Plan aims to protect and restore water-dependent ecosystems to support a healthy working Basin. To help achieve this, the Plan makes more water available for the environment and also guides how environmental watering is planned, coordinated and used at a Basin scale.

The processes for planning and delivering environmental water including principles to be applied when watering occurs are set out in the environmental management framework set out in Chapter 8 of the Basin Plan. It includes:

- processes to co-ordinate the planning, prioritisation and use of planned environmental water and held environmental water, under which:
  - the Authority is obliged to prepare a Basin-wide environmental watering strategy
  - each Basin State is obliged to prepare long-term watering plans for water resource plan areas
  - each Basin State is obliged to identify annual environmental watering priorities for water resource plan areas
  - the Authority is obliged to identify Basin annual environmental watering priorities (Division 5)
- the principles to be applied in environmental watering
- a mechanism to enable the Authority to co-ordinate the recovery of additional environmental water

The purpose of this report is to monitor how Basin governments are implementing the environmental management framework. The report is a requirement of Chapter 13 of the Basin Plan and relates to Item 10 of Schedule 12.

## Indicators for measuring success

Implementation of the environmental management framework is evaluated using the following indicators:

- Basin-wide environmental watering strategy, long-term watering plans and annual priorities were prepared as required (**Indicator 10.1**)
- Watering strategies, plans and priorities were prepared as required (**Indicator 10.2**)
- Environmental watering principles were applied (**Indicator 10.3**)

---

**Indicator 10.1:** Basin-wide environmental watering strategy, long-term watering plans and annual priorities were prepared, with the required content, published, reviewed and updated as obligated under Part 4 of Chapter 8, Divisions 2-5

## Response

No response required from Authority or Basin States. CEWH report only.

**Indicator 10.2:** Watering strategies, plans and priorities are prepared consistently with Part 4 of Chapter 8, in relation to coordinating, consulting and cooperating with other Reports and the matters to which regard must be had (Chapter 8, Part 4)

## Response

Environmental watering proposals under a range of flow scenarios were developed within SA in close cooperation with Local Action Planning Committees, government stakeholders, environmental water holders, environmental asset managers and key community and scientific groups. The proposals were then prioritised using criteria regarding benefit, cost, risk and quantity of water. Stakeholder groups were provided with an overview of the process and invited to provide input at each step. Emails and phone calls were promptly addressed and new proposals included in the revised priorities.

The priorities were then provided to the environmental water holders for planning discussions for cooperative watering of upstream sites. The MDBA wrote a multi-site strategy for The Living Murray water. The Commonwealth Environmental Water Office developed a draft delivery options plan for its water. SA participated in cross-jurisdictional planning groups and advisory committees to help plan and deliver environmental water.

SA determined the optimum hydrograph to maximise use of environmental water within SA at multiple sites to achieve the best ecological outcomes. There were ongoing negotiations with water holders throughout the water year. In 2013-14 a Basin Wide Environmental Watering Strategy had not been developed and there were no registers of water or accredited water resource plans. Therefore, there are no relevant matters to have regard to under clause 8.25 (2).

**Indicator 10.3:** Environmental watering principles are applied as set out in Division 6 of Chapter 8, Part 4

## Response

### Principle

### Description

**Principle 1:** Basin annual environmental watering priorities

Environmental watering was undertaken having regard to the Basin annual environmental watering priorities. The spring pulse was focussed on improving vegetation in low lying pool connected wetlands and providing cues for Golden and Silver Perch spawning by enhancing within channel variability. Environmental flow delivery was also targeted at managing water and salinity levels in the Coorong to enhance reproduction of *Ruppia sp.*

Principle	Description
<p><b>Principle 2:</b> Consistency with the objectives for water-dependent ecosystems</p>	<p>The objectives of the <i>2013-14 Annual Environmental Watering Plan for the South Australian River Murray</i> are consistent with the objectives in Part 2 of the Basin Plan Environmental Watering Plan. This also extends to the <i>SA River Murray Annual Operating Plan 2013-14</i>.</p>
<p><b>Principle 3:</b> Maximising environmental benefits</p>	<p>During 2013-14, SA received and managed environmental water to maximise multiple benefits by:</p> <ul style="list-style-type: none"> <li>• Using the local knowledge of Local Action Planning Committees to identify wetlands in need of environmental water</li> <li>• Consulting with traditional owners (indigenous groups) regarding their priority sites for environmental water</li> <li>• Developing watering proposals that considered the interests of these groups</li> <li>• Undertaking assessments of the benefits of an environmental watering event relative to the costs, risks, quantity of water and relative ecological benefit</li> <li>• Using an Environmental Flows Advisory Group to provide advice and adaptively manage environmental water delivery as flow conditions changed during the year</li> <li>• Seeking environmental water in spring/summer to mimic the natural time for higher flows and to build on consumptive water delivery</li> <li>• Adding extra water to an environmental flow peak to extend the peak in spring to encourage spawning of golden and silver perch</li> <li>• Re-using the environmental water from the spring pulse to enable <i>Ruppia sp.</i> to complete its reproductive cycle and benefit the Lower Lakes, Coorong and Murray Mouth.</li> </ul> <p>South Australia worked cooperatively with the upstream states, the MDBA and the CEWH to enable multi-site environmental water delivery by participating in the development of a multi-site environmental watering strategy under the TLM Environmental Watering Group.</p>
<p><b>Principle 4: Risks</b></p>	<p>South Australia identified risks and risk management strategies for environmental water delivery in its <i>2013-14 Annual Environmental Watering Plan for the River Murray</i>. This is also discussed at the River Murray Operations Working Group, Commonwealth Environmental Water Office teleconferences and with MDBA staff.</p>
<p><b>Principle 5: Cost of environmental watering</b></p>	<p>As part of South Australia's environmental watering proposals, the State provides assessments of the quantity of environmental water required for a particular event relative to the costs, risks and benefits.</p>

Principle	Description
<p><b>Principle 6:</b> Apply the precautionary principle</p>	<p>A lack of full scientific certainty as to whether there are threats of serious or irreversible environmental damage was not used to postpone environmental watering in South Australia.</p>
<p><b>Principle 7:</b> Working effectively with local communities</p>	<p>The South Australian Government undertook extensive consultation on proposed environmental water delivery with local communities through:</p> <ul style="list-style-type: none"> <li>• the South Australian Murray-Darling Basin Natural Resources Management Board;</li> <li>• the River Murray Advisory Committee;</li> <li>• Local Action Planning groups through the Community Action for the Rural Environment committee;</li> <li>• the Community Advisory Panel for the Coorong, Lower Lakes and Murray Mouth;</li> <li>• the Nature Foundation SA;</li> <li>• the Ngarrindjeri Regional Authority, including the Mannum Aboriginal Community Association Incorporated; and</li> <li>• the First Peoples of the River Murray and Mallee Region.</li> </ul> <p>The South Australian Murray-Darling Basin Natural Resources Management Board, the River Murray Advisory Committee and Community Advisory Panel for the Coorong, Lower Lakes and Murray Mouth include members who are landholders in the River Murray system and who represent the interests of people materially affected by water management issues, including the delivery of environmental water.</p> <p>The Government is currently doing further work to identify the landholders that could be affected by watering events in the future.</p>
<p><b>Principle 8:</b> Adaptive management</p>	<p>Environmental water planning for 2013-14 considered different management options under a range of different flow scenarios. A real time advisory committee provided weekly advice during the delivery of environmental water so that its use could be adaptively managed if conditions changed. SA also participated in the Operations Advisory Group and Barrage Operations Advisory Group which are coordinated by the MDBA and enable quick decision making for real time delivery of environmental water and management of the barrages. SA also participated in the MDBA Environmental Watering Group and the Water Liaison Working Group.</p>
<p><b>Principle 9:</b> Relevant international agreements</p>	<p>SA sought to ensure the protection and restoration of Ramsar sites along the SA River Murray by setting targets in the <i>2013-14 Annual Environmental Watering Plan for the River Murray</i> consistent with the Ramsar</p>

Principle	Description
	limits of acceptable change.
<b>Principle 10:</b> Other management and operational practices	During 2013-14 South Australia continued with a range of infrastructure upgrades to enhance natural flow paths and improve the environmental outcomes possible from managed river operations. These structures allow a greater range of outcomes to be achieved. Investigations and planning for weir pool manipulations continued during 2013-14.
<b>Principle 11:</b> Management of water for consumptive use	A State River Murray Operations Working Group considers the optimal delivery pattern for River Murray flows in SA taking into consideration upstream constraints, consumptive use, management and environmental objectives. This process includes recognition of existing operating rules and operation practices.
<b>Case study</b> (if available)	Not provided.