

Ref: DEW-D0021667

# Policy for the Use of Unregulated Flow in the River Murray in South Australia

## Purpose

The *Basin Plan 2012* requires implementation of policy measures to protect environmental water (held and planned environmental water), through the 'unimplemented' or 'Pre-requisite' Policy Measures (PPMs). This *Unregulated Flow Policy* is one of four policies that, together with accompanying procedures, constitute a significant proportion of South Australia's (SA) PPM environmental water protections. In addition to protection of held and planned environmental water, other water resources used for environmental watering purposes may also be afforded PPM protections within Basin-states in accordance with local requirements.

This policy provides clarity regarding potential use of unregulated flow for environmental outcomes, as detailed in the *Water Allocation Plan (WAP) for the River Murray Prescribed Watercourse, 2021* (River Murray WAP) and pursuant to section 105 of the *Landscape South Australia Act 2019*.

## Scope

This policy applies to all Department for Environment and Water (DEW) staff and Environmental Water Managers (EWMs) seeking to take unregulated flow for environmental watering purposes in the South Australian River Murray.

Unregulated flow in the River Murray is declared by the Murray-Darling Basin Authority (MDBA) as water remaining in the system, after New South Wales (NSW) and Victoria exercise their rights to unregulated flow for consumptive use, which is unable to be captured in Lake Victoria, and is, or will be, greater than the required minimum flow to South Australia. In this context, unregulated flow refers to flow passing the South Australian border, which is greater than the volume required to be delivered at that time<sup>1</sup>, and which has not resulted from a controlled release from a storage. It is most likely to occur in winter and spring as the result of high rainfall events upstream.

---

<sup>1</sup> The required volume for delivery may include, but is not limited to, South Australia's Entitlement under clause 88 of the Murray-Darling Basin Agreement, consumptive and environmental trades, other environmental water delivery, additional dilution flow and Lindsay River Allowance – as determined by the MDBA.

The River Murray WAP protects unregulated flow from extraction for consumptive use and ensures unregulated flow is preserved for the purpose of achieving environmental outcomes, unless required for emergency circumstances.<sup>2</sup>

Each unregulated flow event at the South Australian border occurs for a period of time specified by the MDBA and is subject to updates based on flow forecasts. Such events may remain within the main channel or result in overbank flow and the inundation of adjacent floodplains.

The *Basin Plan* supports and promotes the use of unregulated flow to achieve a range of environmental objectives. When available, unregulated flow (which is a form of planned environmental water (PEW)) may be used instead of, or supplementary to, held environmental water (HEW) entitlements or other water resources allocated to environmental uses.

Environmental watering decisions across the Murray-Darling Basin must be consistent with the *Basin-wide Environmental Watering Strategy* (BEWS) and annual plans, such as the *Basin Annual Environmental Watering Priorities* document.

There are two different administrative types of unregulated flow and this policy applies to both.

- *Unregulated Flow* is declared by the MDBA for particular river reaches in the Murray-Darling Basin for specified periods of time.
- *River Murray Unregulated Flow (RMUF)* is a subset of unregulated flow, declared by the MDBA. The Southern Connected Basin Environmental Watering Committee (SCBEWC) is responsible for prioritising the use of RMUF.

#### Controlled environmental watering actions

A controlled environmental watering action may be undertaken to achieve environmental outcomes from unregulated flow. Alternatively, the unregulated flow may remain 'uncontrolled' as it flows through the River Murray channel and floodplains, and to the Lower Lakes and Coorong.

A controlled environmental watering action refers to a decision, in accordance with the relevant legislation<sup>3</sup>, to operate infrastructure such as a regulator, weir or pump to achieve an environmental outcome. Controlled environmental watering actions include:

- Using regulating structures to divert and/or retain water in pool connected wetlands and/or disposal basins

---

<sup>2</sup> River Murray WAP Section 5.2, Principle 6 on p91: 'Any water South Australia receives in addition to that under Principle 1 that cannot be allocated or used for consumptive purposes under the Agreement and is preserved for the purposes of achieving environmental outcomes unless required in emergency circumstances'.

<sup>3</sup> Including: *Murray-Darling Basin Act 2008* [section 8]; *River Murray Act 2003* [sections 9(5)(c) and 17(1)].

- Using regulating structures or installing temporary banks to retain water in temporary wetlands
- Raising a weir to facilitate the inundation of wetlands and floodplains that are not inundated at normal operating range
- Operating major environmental infrastructure such as the Chowilla, Pike and Katarapko regulators to allow for floodplain scale inundation
- Pumping to temporary sites and then operating regulators or installing temporary banks to retain water.

In the operation of infrastructure, water is taken or diverted and hence constitutes a form of 'take' under the *Landscape South Australia Act 2019*. The use of unregulated flow for a 'controlled environmental watering action' within a 'Regulated Class 9 Wetland' (Government Gazette No. 99, 2020, p. 6263 Ref 390221) or through the 'Operating of Regulating Works and Infrastructure' (Government Gazette No. 99, 2020, p. 6264 Ref. 390222) have been authorised pursuant to section 105 of the *Landscape South Australia Act 2019*.

The scope of this policy covers the use of unregulated flow for controlled environmental watering actions between the South Australian border and Lake Alexandrina. Operation of barrage infrastructure under both regulated and unregulated conditions is not considered a controlled environmental watering action and is governed by the *Barrage Operating Strategy*, noting barrage operations will be supported by unregulated flows.

This policy specifically covers the purpose(s) for which unregulated flow may be used. However, the operation of infrastructure associated with any controlled environmental watering action(s), that may use unregulated flow or other water resources, is a separate matter and outside the scope of this policy. Separate approval(s) for undertaking controlled environmental watering actions must still be obtained from the relevant authority.

## Policy

### Use of unregulated flow for environmental watering

1. Unregulated flow may only be used in SA for the purpose of environmental watering actions unless required for emergency circumstances.
2. Where the use of unregulated flow for controlled environmental watering actions is sought, approval is required from the Minister's delegate.
3. The use of unregulated flow for environmental watering actions must not impact on the reliability of allocations for South Australian River Murray water users<sup>4</sup>.

---

<sup>4</sup> Controlled environmental watering actions must not impact on the reliability of allocations for South Australian River Murray water users, consistent with s105 Authorisations and the *Procedure for the Use of Unregulated Flow in the River Murray in South Australia*.

4. The use of unregulated flow for environmental watering actions will be consistent with the *Annual Environmental Watering Priorities* and/or associated Proposals, or as approved by the Minister's delegate.
5. The number and scale of environmental watering actions carried out during an unregulated flow event will be subject to the duration of the event and the total volume of water available.
6. For each environmental watering action, unregulated flow may only be used for the duration of the unregulated flow event.
7. Water available from an unregulated flow event cannot be traded, sold or otherwise transferred.
8. Any wetland regulator that is at risk of damage from being over-topped during an unregulated event should be opened, and this will not be considered a controlled watering action for the purposes of water use accounting.
9. When an unregulated flow event occurs (except when SA is below full annual entitlement conditions) there is an expectation that disposal basin regulators will be opened to use unregulated flow when the river is above specified flow rates for opening and flushing of basins, as defined in individual disposal basin operation plans, and accounted for, as appropriate.
10. HEW use (losses and return flow) from controlled environmental watering actions may be accounted for against unregulated flow, as agreed between environmental water holders and DEW, and as per the *Policy and Procedure for Application of Losses to Environmental Water*.
11. Incremental transmission losses associated with increased flow at the SA border from delivery of environmental water and/or unregulated flow may also be accounted against unregulated flow and applied as per the *Procedure for Application of Losses to Environmental Water*.
12. Once flow at the SA border exceeds 60,000ML/d then accounting any use for controlled environmental watering actions will cease, excluding pumping activities.
13. The use of RMUF will be reported to SCBEWC as necessary.
14. The use of unregulated flow under s105 gazetted authorisations 390221 and 390222 will be reported in accordance with the *Procedure for the Use of Unregulated Flow in the River Murray in South Australia*.

15. Any volume of water provided by an unregulated flow event that is not used for environmental watering actions will remain in the River Murray for delivery to the Lower Lakes and Coorong.

## Responsibilities

Role	Responsibility
Chief Executive (CE), DEW	<ul style="list-style-type: none"> <li>- Approves DEW policies.</li> </ul>
Executive Director (ED), Water and River Murray (WaRM) Division	<ul style="list-style-type: none"> <li>- Approves DEW Water and River Murray Division procedures.</li> <li>- Endorses the <i>Annual Water for the Environment Plan for the South Australian River Murray</i> and the <i>Annual Water for the Environment Priorities for the South Australian River Murray</i>.</li> <li>- Provides approval of the use of unregulated flow in the South Australian River Murray if required.</li> </ul>
Director, Water, Infrastructure and Operations (WIO) Branch	<ul style="list-style-type: none"> <li>- Approves watering schedules with the Commonwealth Environmental Water Holder (CEWH).</li> <li>- Approves use of unregulated flow.</li> <li>- Approves operation of infrastructure for 'take' of water during Unregulated Flow events.</li> </ul>
Environmental Water Unit (EWU)	<ul style="list-style-type: none"> <li>- Coordinates the development of the <i>Annual Environmental Watering Priorities for the South Australian River Murray</i> and the <i>Annual Water for the Environment Plan for the South Australian River Murray</i>.</li> <li>- Coordinates the determination of modelled losses associated with environmental watering actions.</li> <li>- Maintains environmental water accounting records.</li> <li>- Collaborates with Environmental Water Holders (EWHs) on planning for environmental watering actions, accounting arrangements and water schedules.</li> <li>- Undertakes monthly and event-based reporting to EWHs.</li> <li>- Maintains environmental watering accounts.</li> </ul>

Water Delivery Unit (WDU)	<ul style="list-style-type: none"> <li>- Receives and provides advice on <i>River Murray Action Request</i> forms.</li> <li>- Maintains the <i>SA River Murray Environmental Water Accounting Spreadsheet</i>.</li> </ul>
Water Science and Monitoring Branch, DEW	<ul style="list-style-type: none"> <li>- Undertakes modelling to determine environmental water use for various watering actions</li> <li>- Maintains the surface water monitoring network that provides input for site water use assessment, and</li> <li>- Undertakes flow gauging to verify calculated flows at key structures.</li> </ul>
Murray-Darling Basin & Inter-governmental (MDBI) Unit	<ul style="list-style-type: none"> <li>- Responsible for coordinating the reporting of environmental water delivery and use to the MDBA (annually under Matter 9) and publicly on the DEW website (quarterly in accordance with a Murray-Darling Basin Ministerial Council decision).</li> </ul>
Environmental Water Managers (EWMs)	<ul style="list-style-type: none"> <li>- Provide information on proposed and actual use of unregulated flows to the EWU.</li> <li>- Coordinate delivery of unregulated flow to agreed sites and ensure compliance with the delegate approved use.</li> </ul>
Murray-Darling Basin Authority (MDBA)	<ul style="list-style-type: none"> <li>- Declaration of unregulated flow at the SA border.</li> <li>- Provides advice on the volume of unregulated flows available at the SA Border.</li> <li>- Coordinates the prioritisation and use of RMUF along the Murray system.</li> </ul>

## Definitions

Term	Definition
<i>Controlled environmental watering action</i>	A controlled environmental watering action is where a decision is made to use infrastructure such as a regulator or weir to increase the area of inundation or retain water, including operation of floodplain environmental regulators and raising of main-channel weirs.
<i>Environmental regulator</i>	Built infrastructure that has the capacity to retain or release water on the floodplain to achieve environmental outcomes.
<i>Environmental water</i>	As defined in Section 4 of the <i>Water Act 2007</i> ;

	<p><i>"environmental water means:</i></p> <p>(a) held environmental water; or</p> <p>(b) planned environmental water"</p> <p>and,</p> <p>for the purposes of this Policy, environmental water also includes other water resources that are neither held or planned environmental water but are water entitlements and/or allocations used for environmental watering.</p>
<i>Environmental watering</i>	As defined in Section 4 of the <i>Water Act 2007 (Cth)</i> ; "The delivery or use of environmental water to achieve environmental outcomes."
<i>Held environmental water (HEW)</i>	As defined in Section 4 of the <i>Water Act 2007 (Cth)</i> ; <i>"held environmental water means water available under:</i> (a) a water access right; or (b) a water delivery right; or (c) an irrigation right; for the purposes of achieving environmental outcomes (including water that is specified in a water access right to be for environmental use)".
<i>Incremental transmission losses</i>	The losses (evaporation and seepage) which occur during an enhanced flow event due to an increase in River Murray Channel inundated area, in comparison to what would have occurred in the absence of the flow enhancement.
<i>Losses</i>	A term used when accounting for water; occurs when water evaporates, is used by plants and/or seeps into the ground. Refer <a href="https://www.mdba.gov.au/water-management/mdba-river-operations/why-water-losses-happen">https://www.mdba.gov.au/water-management/mdba-river-operations/why-water-losses-happen</a>
<i>Regulating works and infrastructure</i>	Any works or infrastructure, including but not limited to, a regulator, pump, weir or temporary bank, which can be operated/manipulated to achieve environmental outcomes.
<i>Regulated flow</i>	The flow resulting from the release of stored water, at the direction of the MDBA or state water resource managers, other than during or in anticipation of floods.
<i>Return flow(s)</i>	Environmental Water that returns back to the river after it is used. Refer <a href="https://www.mdba.gov.au/water-management/river-operations/return-flows">https://www.mdba.gov.au/water-management/river-operations/return-flows</a>

<i>River Murray Unregulated Flow</i>	River Murray Unregulated Flow (RMUF) is a subset of Unregulated Flow, declared by the MDBA with an associated volume. The Southern Connected Basin Environmental Watering Committee (SCBEWC) is responsible for providing advice to the Basin Officials Committee (BOC) regarding the prioritisation and environmental site use of RMUF.
<i>Planned environmental Water (PEW)</i>	As defined in Part 1 Section 6 of the <i>Water Act 2007 (Cth)</i> ; “ <i>planned environmental water</i> is water that: (a) is committed by: (i) the Basin Plan or a water resource plan for a water resource plan area; or (ii) a plan made under a State water management law; or (iii) any other instrument made under a law of a State; to either or both of the following purposes: (iv) achieving environmental outcomes; (v) other environmental purposes that are specified in the plan or the instrument; and (b) cannot, to the extent to which it is committed by that instrument to that purpose or those purposes, be taken or used for any other purpose.”
<i>Southern Connected Basin Environmental Watering Committee</i>	The Southern Connected Basin Environmental Watering Committee (SCBEWC) is the forum that supports the coordinated delivery of water for the environment across multiple water holders and jurisdictions in the Southern Basin.
<i>Unregulated Flow</i>	Unregulated flow to South Australia is declared by the MDBA for a period of time, and extended as appropriate, after New South Wales and Victoria exercise their rights to unregulated flows for consumptive use, and the water is unable to be captured in Lake Victoria.

## Acronyms

BEWS	Basin-wide Environmental Watering Strategy
BOC	Basin Officials Committee
CE	Chief Executive
CEWH	Commonwealth Environmental Water Holder
Cth	Commonwealth



DEW	Department for Environment and Water
ED	Executive Director
EWMs	Environmental Water Managers
EWU	Environmental Water Unit
HEW	Held Environmental Water
MDBA	Murray-Darling Basin Authority
MDBI	Murray-Darling Basin & Intergovernmental
NSW	New South Wales
PPM	Pre-requisite Policy Measures
RMUF	River Murray Unregulated Flow
SA	South Australia
SCBEWC	Southern Connected Basin Environmental Watering Committee
WAP	Water Allocation Plan
WaRM	Water and River Murray
WDU	Water Delivery Unit
WIO	Water Infrastructure and Operations

## Associated Documents and References

- Department for Environment and Water (DEW), 2023, *Procedure for the Use of Unregulated Flow in the River Murray in South Australia* (Not available online)
- Department for Environment and Water (DEW), 2022-23, *Annual environmental watering priorities for the South Australian River Murray Water Resource Plan Area* (the Annual Priorities)  
<https://cdn.environment.sa.gov.au/environment/docs/sa-river-murray-environmental-watering-priorities-2020-21.pdf>
- Department for Environment and Water (DEW), 2019, *Barrage Operating Strategy*  
<https://cdn.environment.sa.gov.au/environment/docs/barrage-operating-strategy-gen.pdf>
- Department for Environment, Water and Natural Resources (DEWNR), 2014, *River Murray Act Implementation Strategy 2014*  
<https://cdn.environment.sa.gov.au/environment/docs/river-murray-implementation-strategy-2014-gen.pdf>

- Government of South Australia, Gazette 24 December, 2020, Ref 390221 and 390222 No. 99 p. 6263 Notice of Authorisation to Take Water from the River Murray Prescribed Watercourse pursuant to section 105 of the Landscapes South Australia Act 2019  
[https://www.governmentgazette.sa.gov.au/2020/December/2020\\_099.pdf](https://www.governmentgazette.sa.gov.au/2020/December/2020_099.pdf)
- *Landscape South Australia Act 2019*  
<https://www.legislation.sa.gov.au/LZ/C/A/LANDSCAPE SOUTH AUSTRALIA ACT 2019.aspx>
- Murraylands and Riverland Landscape Board (MRLB), 2023, *Water Allocation Plan for the River Murray Prescribed Watercourse* (WAP)  
<https://www.landscape.sa.gov.au/mr/water/water-allocation-plans/river-murray-wap>
- Murray-Darling Basin Authority (MDBA), 2019, *Basin-wide Environmental Watering Strategy* (BEWS), revised ed. February 2020  
<https://www.mdba.gov.au/publications/mdba-reports/basin-wide-environmental-watering-strategy>
- Murray-Darling Basin Authority (MDBA), 2020, *Southern Connected Basin Environmental Watering Committee Annual Reports*  
<https://www.mdba.gov.au/publications/mdba-reports/southern-connected-basin-environmental-watering-committee-documents>
- Murray-Darling Basin Agreement, 2008 (Cth) (see Schedule 1 of the *Water Act 2007*)  
<https://www.mdba.gov.au/water-management/allocations-states-mdba/murray-darling-basin-agreement>
- *River Murray Act 2003* (SA)  
[https://www.legislation.sa.gov.au/\\_legislation/lz/c/a/river%20murray%20act%202003/current/2003.35.auth.pdf](https://www.legislation.sa.gov.au/_legislation/lz/c/a/river%20murray%20act%202003/current/2003.35.auth.pdf)
- *Water Act 2007* (Cth)  
<https://www.legislation.gov.au/Details/C2017C00151>

## Contact

Tony Herbert  
Manager, Environmental Water  
Water Infrastructure and Operations  
Email: [tony.herbert@sa.gov.au](mailto:tony.herbert@sa.gov.au)

Chrissie Bloss  
Manager, Water Delivery  
Water Infrastructure and Operations  
Email: [chrissie.bloss@sa.gov.au](mailto:chrissie.bloss@sa.gov.au)

Approved by	John Schutz, Chief Executive Department for Environment and Water	Date Approved	27 June 2023
Responsible Branch	Water Infrastructure and Operations	Review Date	30 June 2026
Keywords	River Murray, environmental water, unregulated flow, RMUF, Pre-requisite Policy Measures, PPM	Version	3.0

OFFICIAL

OFFICIAL