



Australian Government

Commonwealth Environmental Water Office

Commonwealth Environmental Water Office **2012-13 Business Plan - June 2012**



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Overview

The Commonwealth Environmental Water Office business plan has been prepared to outline the management and use of Commonwealth environmental water during 2012-13.

We welcome your views on the 2012-13 business plan.

Please forward your comments to ewater@environment.gov.au

1.1 About the business plan

The Commonwealth Environmental Water Holder is supported in meeting statutory obligations by the Commonwealth Environmental Water Office which is located within the Department of Sustainability, Environment, Water, Population and Communities (the Department).

The business plan outlines how the Commonwealth Environmental Water Office and the Department will deliver efficient management of the Commonwealth's environmental water in 2012-13, so as to maximise environmental outcomes that will benefit both communities and the environment in the Murray-Darling Basin and meet obligations under the *Water Act 2007* (Cth) (the Act) and other relevant legislation. This plan builds on business plans prepared in previous years.

The plan provides an overview of actions planned for 2012-13, including priority activities. It addresses:

- Achieving environmental outcomes;
 - decisions on the use of Commonwealth environmental water;
 - trade of Commonwealth environmental water holdings;
 - carryover;
- institutional arrangements and external relationships;
- financial management and accountability; and
- structure of the Commonwealth Environmental Water Office (see [Appendix A](#)).

1.2 Approach in 2012-13

In 2012-13, the Commonwealth Environmental Water Office will be responsible for the delivery of Outcome 6 under the Department's Portfolio Budget Statement:

Outcome 6: Protection and restoration of environmental assets through the management and use of Commonwealth environmental water.

In delivering Outcome 6, the Commonwealth Environmental Water Office will be guided by the following objectives:

- manage the Commonwealth environmental water holdings in accordance with the Basin Plan environmental watering plan and obligations under the Act;
- ensure maximum environmental outcomes are achieved with available water through efficient and effective management and use of the Commonwealth environmental water portfolio; and
- improve transparency, accountability and stakeholder engagement in management of Commonwealth environmental water.

The Commonwealth Environmental Water Office will deliver environmental water to protect and restore environmental assets by working with the Murray-Darling Basin Authority, the States, communities and industry in the Murray-Darling Basin. In assessing potential watering actions for use of environmental water, consideration will be given to Basin-wide annual priorities and to local community and catchment identified needs. Key factors are, therefore, the current and desired state of environmental assets and the degree of availability of water for use.

The key priorities for the Commonwealth Environmental Water Office in 2012-13 are to:

- use available Commonwealth environmental water to meet identified environmental needs, while ensuring that decision making is carried out in a consistent, rigorous, transparent and accountable manner;
- continue to align the planning and management of Commonwealth environmental water with the environmental watering plan, having regard to Basin-wide annual priorities and to local community and catchment identified needs;
- further develop the approach to managing the portfolio of Commonwealth environmental water assets including:
 - develop water use options and work towards resolving operational or institutional constraints to the delivery of water, including development of strategic 12 month and five year water use plans;
 - develop multi-year strategies for carryover and trade of water;
 - finalise the Commonwealth Environmental Water Trading Arrangements framework; and
 - publish annual Portfolio Management Statements for each catchment;
- further enhance internal capabilities for the effective management of Commonwealth environmental water, including the implementation of an Environmental Assets Database and the Environmental Water Management System and associated standard business and information processes;

- implement a monitoring, evaluation, reporting and improvement framework to provide a strategic approach to evaluating the use of Commonwealth environmental water;
- implement water shepherding arrangements that provide for legal protection, effective use and accurate accounting of Commonwealth environmental water used in unregulated rivers, including implementing arrangements under New South Wales and Queensland water shepherding agreements;
- increase stakeholder and community engagement through:
 - working with the Basin states to formalise current local engagement arrangements and develop arrangements where none currently exist;
 - regularly meeting with the Commonwealth Environmental Water Stakeholder Reference Panel to assess and respond to concerns raised by key stakeholders;
 - actively seeking local suggestions for water use, and by strengthening and fostering new relationships across the Basin;
- ensure high quality scientific advice to inform decision-making about use of environmental water;
- ensure expert advice to inform decision-making on governance and technical aspects of management and use of environmental water; and
- improve the provision of information about use and management of environmental water through the Commonwealth Environmental Water Holder's Annual Report, the Commonwealth Environmental Water Annual Outcomes Report and other information products.

Further information on Commonwealth environmental water is available from www.environment.gov.au/ewater and from the Commonwealth Environmental Water Office annual and outcomes reports which are available on the website.

2. Achieving Environmental Outcomes

Commonwealth environmental water held in the Murray-Darling Basin is required to be managed for the purpose of protecting or restoring the environmental assets of the Murray-Darling Basin so as to give effect to relevant international agreements. Defining environmental assets is discussed in [Appendix C](#).

Commonwealth environmental water is to be managed in accordance with the Basin Plan environmental water plan, any operating rules that the Minister has made, and any environmental watering schedules to which the Commonwealth Environmental Water Holder is party.

2.1 Active management

Commonwealth environmental water is actively managed to maximise environmental outcomes using the available water.

Active management means that there are many possible options and decision points. The option to use water at a particular time and place is assessed relative to the benefits achievable under other options, including benefits achievable in future years and elsewhere in the Basin. Accordingly, the use of water in a particular year needs to be assessed against options for use that may be available in the future or at other sites through the carryover of water or trade of water.

Active management includes using infrastructure to deliver water; working with river operators to better manage environmental flows; using carryover arrangements and transferring water allocations between catchments to where it is needed most. Trading of Commonwealth environmental water is an additional management option.

As part of active management, additional works and measures may be required to deliver water to some environmental assets. The need for works or measures will be considered in consultation with delivery partners.

2.2 Decisions on the use of Commonwealth environmental water

Decisions on the use of Commonwealth environmental water are made by the Commonwealth Environmental Water Holder. These decisions are informed by advice from delivery partners, the Commonwealth Environmental Water Office and the Commonwealth Environmental Water Scientific Advisory Panel. In 2012-13 the Commonwealth Environmental Water Advisory Council will also provide advice to the Commonwealth Environmental Water Holder on portfolio management options.

Decisions on water use are made through the following steps:

2.2.1 Developing options for the use of water

Potential watering options are identified in cooperation with state agencies, other environmental water managers, local groups (such as catchment management authorities, natural resource management boards and environmental water advisory groups) and landholders. Water use options are developed initially prior

to the start of each water year. As conditions unfold throughout the year and as decisions are made to make water available for a particular option, use options will be refined or updated to reflect climate, flow conditions and other requirements to take advantage of opportunities (such as enhancing natural flows) or respond to risks and constraints to delivery.

The Commonwealth Environmental Water Office welcomes additional suggestions including proposals for alternate sites and delivery arrangements.

2.2.2 Assessing potential actions

The Commonwealth's aim in using environmental water is to maximise environmental outcomes for the Murray-Darling Basin. Decisions on use are guided by the *Framework for determining Commonwealth environmental watering actions* at: www.environment.gov.au/ewater/publications/cewh-framework.html. Under the framework, potential watering actions are assessed against the following criteria:

- the ecological significance of the asset to be watered;
- the expected ecological outcomes from the proposed watering action;
- the potential risks of the proposed watering action at the site and at connected locations;
- the long-term sustainability of the asset, including appropriate management arrangements; and
- the cost-effectiveness and operational feasibility of undertaking the watering.

More detailed criteria for assessing environmental watering actions are at Appendix B. In 2012-13 the framework and criteria will be reviewed for alignment with the Basin Plan and particularly its environmental watering plan, and amended accordingly.

2.2.3 Seeking local and expert advice

In making decisions on Commonwealth environmental water use, local expertise and advice from the Commonwealth Environmental Water Scientific Advisory Panel and river operators is obtained, including on the environmental need, current conditions and potential delivery arrangements.

In 2012-13 the Commonwealth Environmental Water Stakeholder Reference Panel will also provide guidance and advice about local and community interests in the use and management of Commonwealth environmental water.

2.2.4 Environmental water delivery

Following decisions on use, the Commonwealth Environmental Water Office will enter into arrangements with the relevant Basin state governments, and with other environmental water holders, managers or catchment management authorities, to optimise delivery of water for the environment. The delivery phase also involves coordination with river operators.

In regulated rivers, water is delivered as river flows or moved to the location it is needed using water trading. As the volume of water held for the environment increases, in-stream watering is becoming critical for efficient delivery of water to meet environmental objectives. In unregulated rivers, water shepherding will be required to ensure that in-stream environmental flows are directed to priority environmental needs and are protected from consumptive uses.

Water may be delivered as river flows or managed through infrastructure to particular sites or potentially pumped from the river to a site. Use of water in these ways must be within operational arrangements which take account of the delivery constraints of infrastructure and rivers.

2.2.4.1 Water shepherding

Water-shepherding arrangements provide for the legal protection, effective use and accounting of Commonwealth environmental water in unregulated rivers. These arrangements are required to ensure that the substantial Commonwealth investment under *Water for the Future* is protected and the objectives of the Act are met.

Agreements are in place with the New South Wales and Queensland governments to develop water shepherding arrangements. A key principle in implementing these arrangements is that entitlements and allocations held by water users will not be enhanced nor diminished as a result of water shepherding. Affected stakeholders will be consulted on the proposed approach to water shepherding prior to permanent changes being implemented.

Implementation of water shepherding arrangements to protect Commonwealth environmental water in the Barwon-Darling system in New South Wales is expected to occur in 2012-13 following analysis and consultation undertaken in 2010-11 and 2011-12. As New South Wales arrangements in the Barwon-Darling are implemented in the relevant Water Sharing Plans, the focus will shift to negotiating arrangements to shepherd Commonwealth environmental water through Menindee Lakes, which would require amendments to the Murray-Darling Basin Agreement. A renewed focus is also expected in 2012-13 for shepherding of Commonwealth environmental water in Queensland.

2.2.5 Making water available for use

The arrangements for making water available for a particular purpose depend on the rules of the relevant jurisdiction or corporation relating to the use of water under the relevant entitlements, the preferences of the delivery partners, the location of the watering activity, and the trade-offs between efficiency and flexibility. The main options for accounting water use are:

- linking the Commonwealth Environmental Water Office holding account to the delivery partner's works or water delivery approval, thus allowing the partner to order water under the terms of an agreement;
- transferring allocations from the Commonwealth Environmental Water Office accounts to a partner's account, providing them with the authority to use it under an agreement; and
- using term transfers or tagged trading to transfer allocations to a watering partner, and to allow them to use water under the terms of an agreement.

During 2011-12, the principal method of making water available for use was through trade-allocation transfers. In 2012-13, the use of these different methods will be determined on a case by case basis to ensure the optimal method is adopted for managing use of water.

2.2.6 Cost sharing in water use

There is considerable Commonwealth investment in the acquisition of the environmental water holdings. The provision of this water assists the states meet their water and natural resource objectives. In regard to the provision of funding for costs the following principles will apply:

- use of Commonwealth environmental water will be underpinned by a value for money principle. This will ensure that maximum environmental outcomes are achieved from available resources. If an action is not cost effective then it will not proceed;
- recognition of the value of water provided by the Commonwealth Environmental Water Office to delivery partners to achieve land and water management objectives;
- recognition of the value of the water provided by contributing parties to achieve land and water management objectives;
- recognition of other contributions (for example on-site management costs) will also be taken into account;
- any agreed Commonwealth funding contributed must supplement, not substitute for, the existing funding provided by delivery partners;
- all parties should be open and transparent when reporting on costs associated with the management of environmental water; and
- cost sharing arrangements must be based on achieving efficiency and be flexible and sustainable in the long term.

2.2.7 Monitoring, evaluation, reporting and improvement

The management of held environmental water is a relatively new function and subject to the uncertainties of changing water availability and environmental conditions. In this context, an adaptive management approach is being taken to the use of Commonwealth environmental water.

Adaptive management is being undertaken at three timescale levels: immediate, intermediate and long term. The Commonwealth Environmental Water Office is establishing an adaptive management cycle at each level including the steps for planning, objective setting, monitoring and evaluation, and review.

The *Commonwealth Environmental Water - Monitoring, Evaluation, Reporting and Improvement Framework* has been released and can be found at:

<http://www.environment.gov.au/ewater/publications/ewater-monitoring-evaluation.html>

The framework will be amended over time and is intended to provide a broad overview of how the Commonwealth Environmental Water Office will approach monitoring, evaluation, reporting and improvement activities. Feedback and suggestions about the framework are welcome.

The key activities proposed for 2012-13 are outlined as follows:

2.2.7.1 Operational monitoring

Operational monitoring will continue to be implemented by delivery partners for all watering actions to ensure water is delivered as planned and to monitor immediate environmental responses.

2.2.7.2 Targeted intervention monitoring of selected watering actions

Targeted intervention monitoring will occur where there is a need to understand short term outcomes, inform annual planning and inform long term intensive monitoring.

2.2.7.3 Intensive intervention monitoring of selected areas (indicator sites)

As part of implementing the framework, the Commonwealth Environmental Water Office is establishing long term arrangements for intensive monitoring at indicator sites. In doing so this will seek to both complement existing monitoring activities and build on the targeted monitoring already in place.

There is already environmental monitoring being undertaken at Living Murray icon sites (Barmah-Millewa Forest, Gunbower-Koondrook – Perricoota Forest, Hattah Lakes, Chowilla Floodplain and Lindsay Wallpolla Islands, Murray Mouth Coorong and Lower Lakes) and at other sites such as the Macquarie Marshes. This monitoring is largely focused on wetlands and floodplains.

The Commonwealth Environmental Water Office may seek to put in place arrangements that complement the existing monitoring programs at these locations. Where this occurs, the focus would be on additional work to enable specifically the monitoring and evaluation of Commonwealth environmental watering actions.

Areas where intensive monitoring may be implemented have not been settled but the following indicator sites are currently being considered:

- Gwydir Wetlands (focussing on wetlands and floodplains);
- Lower Lachlan (focussing on in-stream and on fringing wetlands);
- Lower Murrumbidgee River (focussing on in-stream, and on fringing wetlands and floodplains);
- Edward – Wakool River system (focussing on in-stream and on fringing wetlands);
- Goulburn River (focussing on in-stream and on fringing wetlands); and
- Murray River (focussing on in-stream and on fringing wetlands).

2.2.7.4 Program (broad-scale) monitoring across the entire Basin

This type of monitoring will be used to assess Basin-wide ecological responses to environmental watering over the medium to long term. It is anticipated that the Murray-Darling Basin Authority will take the lead on the program level monitoring although input from environmental water managers will be an important contribution to this work. The Commonwealth Environmental Water Office will link its intervention monitoring activities with program level monitoring undertaken by the Authority to contribute to assessing the ecological outcomes and effectiveness of the Basin Plan (items 11 and 12 of Schedule 10 of the proposed Basin Plan).

The Authority is currently co-ordinating a number of projects that contribute to program level monitoring of the Basin, including the Sustainable Rivers Audit, water quality and fish monitoring in the River Murray system and opportunistic waterbird monitoring.

2.2.7.5 Evaluation

Evaluation of Commonwealth environmental water actions is being undertaken to:

- demonstrate the outcomes of the use of Commonwealth environmental water and how it has contributed to achieving the objectives of the environmental watering plan;
- support adaptive management and improvement in the management of Commonwealth environmental water to meet ecological objectives; and
- identify information gaps to help build new knowledge.

2.2.7.6 Reporting

The Commonwealth Environmental Water Office will continue to:

- publish results from all monitoring and evaluation work that it commissions; and
- produce an annual environmental water outcomes report, which will summarise overall environmental outcomes.

2.2.7.7 Improvement

The improvement process for the use of Commonwealth environmental water will be based on evaluation of the ecological outcomes from the use of water, and the watering actions undertaken. Improvement will be given effect through refinement of:

- future watering actions;
- annual water use options and longer-term portfolio management plans; and
- the Basin Plan (to be undertaken by the Authority through the proposed 2015 review, and the ten year review required under s. 50 of the Act).

2.3 Trade of Commonwealth environmental water holdings

Under the Act, the holdings are defined as water access rights, water delivery rights, irrigation rights or other similar rights, interests in relation to such rights, and rights held in trust or donated, owned by the Commonwealth for the performance of the environmental water function. The sources of the holdings are:

- Commonwealth purchases of water rights;
- water saved or acquired from Commonwealth funding of irrigation improvements or other activities; and
- annual allocations against entitlements in the holdings (this could include trade or donations).

A summary of the portfolio is provided on the Commonwealth Environmental Water Office website at www.environment.gov.au/ewater/, and is updated monthly.

Water rights held by the Commonwealth retain the same legal characteristics that existed before acquisition. While entitlements are managed for the environment rather than consumption, the Commonwealth is subject to the same allocations, fees, and carryover rules as other entitlement holders.

2.3.1 Administering water accounts

Water accounts held for each water right in the portfolio have characteristics that differ in:

- the conditions on using allocations;
- processes for ordering water;
- linkages to water-use approvals;
- rules and processes for trading water allocations; and
- water-accounting rules, such as carryover, maximum-use provisions and water-order debiting.

Water allocations may be transferred between various accounts to achieve an improved environmental outcome. For example, when a decision is made to use water it is generally transferred to a delivery partner for the agreed use. The water required for a particular water use action may be sourced from a range of titles. Transfers may also take place to improve the opportunities for carryover.

In 2012-13, the Commonwealth Environmental Water Office will continue to monitor developments with respect to the rules and arrangements applying to water rights and their water accounts, and will support simplified and more timely transfer processes for all water users.

2.3.2 Maintaining the holdings register

Under s. 105(2)(c) of the Act, the Commonwealth Environmental Water Holder is required to maintain an up-to-date record of the holdings in the form of a register. The register records the number of environmental water rights (entitlements or licences) held by the Commonwealth. It also records the water made available against these rights and tracks the transfer of this water for delivery to environmental sites.

Water allocations accruing to the holdings, transfers and water use are reported on water accounts for each licence (water right) issued by the relevant state agency or irrigation corporation. The Commonwealth Environmental Water Office regularly reviews these accounts and uses the information to update the holdings register.

In 2012-13, the holdings register will be used in conjunction with allocation announcements and forecasts made by state agencies, historic allocation announcements and climate forecasts to forecast likely future water-holding positions. These forecasts will be kept updated and will assist with determining the most effective watering opportunities.

In 2012-13, an Environmental Watering Management System (EWMS) is being developed. The EWMS will provide greater capacity and functionality to manage a larger portfolio of water assets and will include the information captured in the present register of holdings and extend it to include information on water use and a database of environmental assets.

2.3.3 Trade of the holdings

Section 106 of the Act allows the Commonwealth Environmental Water Holder to dispose of water (allocations) and holdings (water rights) in limited circumstances.

The Commonwealth Environmental Water Holder may only dispose of allocations and/or entitlements if:

- the allocations are not required to meet environmental objectives in a given water accounting period and cannot be carried over to the next accounting period – s. 106(1); or
- the proceeds of the disposal (of either allocations or water rights) are used to purchase water (either allocations or water rights) that improves the capacity of the holdings to meet the environmental objectives – s. 106(2).

2.3.4 Framework for trade

In 2011-12 the Commonwealth Environmental Water Office released a discussion paper on trade. In this discussion paper the Commonwealth Environmental Water Office undertook to put in place a framework to ensure good governance arrangements around trade. The framework comprises four components:

- operating rules;
- portfolio management strategy;
- independent external advice; and
- internal governance arrangements.

2.3.5 Operating rules for trade

Section 109 of the Act allows the Minister to make operating rules by legislative instrument relating to purchasing, disposing of, and otherwise dealing in water and water access rights, either directly or through contractual arrangements.

In 2012-13 the Commonwealth Environmental Water Office will develop operating rules to establish the general framework within which trade can occur. Submissions to the trade paper received during 2011-12 will inform development of the operating rules.

The Commonwealth Environmental Water Office will consult with stakeholders on the operating rules through a trading position paper to be released in the first half of 2012-13.

2.3.6 Annual portfolio management planning

Portfolio management will consider the appropriate balance between annual water use options, carryover for future use and potential trade options in the 2012-13 water year for the purpose of improving the capacity of the portfolio to meet the environmental objectives.

As part of the 2012-13 planning process, portfolio management statements will also be developed for each catchment and made publicly available on the Commonwealth Environmental Water Office website. The purpose of the statements is to increase the transparency of the Commonwealth Environmental Water Office's approach to portfolio management by outlining the potential portfolio management actions that may occur in each catchment in 2012-13. It is envisaged that the portfolio management statements will be revised throughout the water year as environmental needs, catchment conditions and water market conditions change. The publication of portfolio management statements will deliver on a commitment made through the trade discussion paper to make information on the Commonwealth Environmental Water Office's portfolio management strategies available to other market participants.

2.3.7 Market information

Data on the trade in water entitlements and allocations is recorded in state-managed registers. This information is used in relation to:

- valuation of the holdings;
- identification of opportunities for trading allocations and entitlements; and
- responding to requests for information.

2.4 Carryover

The Commonwealth environmental water holdings include a number of entitlements with carryover provisions. Carryover is provided for in regulated parts of the Murray-Darling Basin and allows water users to hold water in storages so that it is available in subsequent years. Carryover provides water users with greater flexibility to manage their own water availability across years. The Commonwealth Environmental Water Office operates under the same rules and pays the fees and charges associated with its water as all other water entitlement holders. The Commonwealth can carry over water in the same way as occurred when the water entitlements were managed by someone else for agricultural use.

When planning for carryover in 2012-13, the Commonwealth will take into account the following considerations:

- flexibility to achieve key environmental demands in the future irrespective of the climatic conditions between now and then;
- having opening balances in water accounts which are most likely to provide water where needed early in a water year;
- the consequences for water availability when water cannot be carried over directly but is returned for reallocation in the subsequent year;
- other portfolio management options (including trade, transfer, forfeit, and holding reserves of funds);
- the cost of water delivery; and
- the potential of carrying over water in accounts which may be subject to trade restrictions through the water year.

The Commonwealth Environmental Water Office will report each year on the volume of water that has been carried over on each entitlement type held in the Basin. Over the longer term it is expected that the percentage of Commonwealth environmental water carried over will be similar to other water users - although like all water users it will vary from year to year.

3. Institutional Arrangements and External Relationships

This section describes arrangements for the management of Commonwealth environmental water, including the relationships between the Commonwealth Environmental Water Holder, the Commonwealth Environmental Water Office, the Department, delivery partners and the Murray-Darling Basin Authority. Figure 1 shows these working relationships.

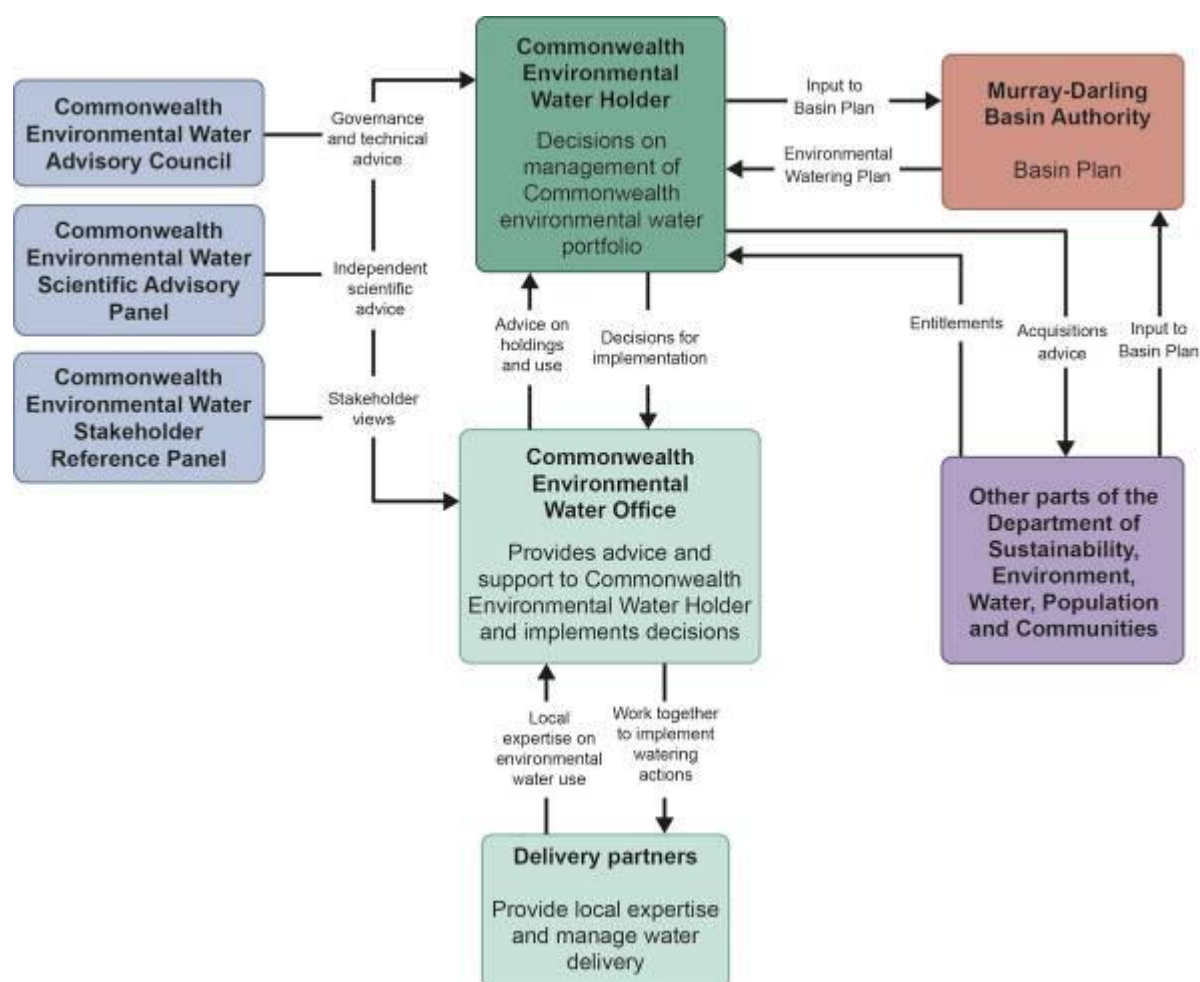


Figure 1: Key environmental water responsibilities

3.1 Commonwealth Environmental Water Holder

The Commonwealth Environmental Water Holder is an independent statutory position created by the Act to manage the Commonwealth's environmental water holdings and to administer the Environmental Water Holdings Special Account.

The Commonwealth Environmental Water Holder is appointed under s. 115 with statutory functions set out in Part 6 of the Water Act, which are performed on behalf of the Commonwealth. The position holder must be engaged under the *Public Service Act 1999*.

Section 107 of the Act provides that the Commonwealth Environmental Water Holder is not subject to direction from the Minister or Secretary in relation to exercising any powers to purchase, dispose of and otherwise deal in water and water access rights. Any directions that have been given, that do not relate to matters under ss. 105(2) (a)-(c), must be reported in the Commonwealth Environmental Water Holder's annual report pursuant to s. 114 (refer to Section 4.2). The Minister may make operating rules (s. 109) about water trading, however, operating rules are intended to provide general direction on water trading only.

The Commonwealth Environmental Water Holder leads the Commonwealth Environmental Water Office.

3.2 Internal relationships

3.2.1 Commonwealth Environmental Water Office

As part of the response to the House of Representative's Standing Committee report *Of Drought and Flooding Rains: Inquiry into the impact of the Guide to the Murray-Darling Basin Plan in Regional Australia*, the Government agreed to establish a separate Commonwealth Environmental Water Office. The Commonwealth Environmental Water Office operates as a distinct entity within the Department and its establishment is intended to improve accountability and stakeholder engagement in the management of environmental water.

The Commonwealth Environmental Water Office provides formal support to the Commonwealth Environmental Water Holder in meeting the statutory obligations under the Act.

Commonwealth Environmental Water Office staff have expertise in areas including science, engineering, river operations, economics, information technology and accounting. The structure of the Commonwealth Environmental Water Office is described in [Appendix A](#).

The Department meets the costs of employing the staff from Commonwealth budget appropriations. The Department provides funding for departmental expenses and provides a range of support services, including corporate and financial management services functions.

3.2.2 Department of Sustainability, Environment, Water, Population and Communities

The Water Efficiency Division in the Department manages the *Restoring the Balance in the Murray-Darling Basin* and the *Sustainable Rural Water Use and Infrastructure* programs, which are part of the Australian Government's *Water for the Future* initiative. These programs acquire entitlements which become part of the Commonwealth's environmental water holdings.

In 2012-13, the Commonwealth Environmental Water Office will continue to work with the Water Efficiency Division to inform the approach to water acquisitions. Advice to the Department on water acquisitions will be provided by the Commonwealth Environmental Water Holder.

The Water Reform Division in the Department is responsible for coordinating a national approach on research and modelling strategies for water, as well as developing frameworks for monitoring river and wetland health (including as they relate to Australia's international obligations), the identification of high ecological value aquatic ecosystems, and providing advice on the water market, water charge and trading rules.

3.3 Commonwealth Environmental Water Office advisory groups

3.3.1 Commonwealth Environmental Water Advisory Council

The Commonwealth Environmental Water Advisory Council is being established to provide independent expert advice to the Commonwealth Environmental Water Holder with respect to the management of the Commonwealth's environmental water portfolio. The Council will be expert based and it will provide advice on:

- river operations and delivery;
- portfolio management;
- financial management and governance; and
- communications / stakeholder engagement.

3.3.2 Commonwealth Environmental Water Scientific Advisory Panel

The Commonwealth Environmental Water Scientific Advisory Panel is being established to advise the Commonwealth Environmental Water Holder on:

- methods for determining relative priority of environmental assets;
- areas that merit additional investigation, including additional research; and
- assessment of the benefits of the use of environmental water.

The Panel comprises scientists and experts in fields such as hydrology, limnology, river operations management, river and floodplain ecology, and the management of aquatic ecosystems.

3.3.3 Commonwealth Environmental Water Stakeholder Reference Panel

The Commonwealth Environmental Water Stakeholder Reference Panel has been established to formalise arrangements used to consult with stakeholders with an interest in the use of Commonwealth environmental water in the Basin. The Panel will advise the Commonwealth Environmental Water Holder on stakeholder issues relating to Commonwealth environmental water including:

- sharing of information and views on Commonwealth environmental water;
- identification of priority stakeholder issues concerning Commonwealth environmental water;
- opportunities and methods for engaging stakeholders on Commonwealth environmental water; and

- assessing the effectiveness of stakeholder engagement about Commonwealth environmental water.

The Panel will be chaired by the Commonwealth Environmental Water Holder and comprises stakeholders concerned with the use of Commonwealth environmental water. The Panel members will play an important role in consulting and liaising with the broader range of stakeholders with an interest in Commonwealth environmental water.

3.3.4 Procuring additional expertise

The Commonwealth Environmental Water Office has established an environmental water management services panel comprising firms with expertise in a range of fields including river operations, water management, monitoring and evaluation, information management, hydrology and ecology, portfolio management and communications. The panel is used to procure services and expertise to support the management of environmental water.

3.4 External relationships

3.4.1 Delivery partners

The Commonwealth Environmental Water Office works with an extensive network of delivery partners to support watering decisions and actions. In particular, partners provide information and knowledge at the local level on environmental water needs, conditions and options for managing water delivery. Delivery partners also undertake watering actions which involve Commonwealth environmental water and monitor the outcomes.

Delivery partners are located in catchments across the Basin and include other environmental water managers, catchment management authorities, state agencies, environmental water advisory groups, river operators, scientific organisations and site managers. A current list of partners is provided at [Appendix D](#). We welcome suggestions from anyone about new delivery arrangements or alternate uses of water.

3.4.2 Murray–Darling Basin Authority

The Murray-Darling Basin Authority (the Authority) is responsible under the Act for developing the Basin Plan—a strategic plan for the integrated and sustainable management of water resources across the Murray – Darling Basin. The Basin Plan will include an environmental watering plan. Commonwealth environmental water holdings must be managed in accordance with this environmental watering plan once the Basin Plan is adopted. The Authority must consult with the Commonwealth Environmental Water Holder and other environmental water managers in developing and implementing the environmental watering plan (ss. 28–29).

The Authority is responsible for monitoring and evaluating the effectiveness of the Basin Plan, including the environmental watering plan. Once the Basin Plan is adopted the Commonwealth Environmental Water Holder will have reporting obligations to the Authority.

The Authority also manages a portfolio of environmental water that has been secured by *The Living Murray* program, to be used at six ‘icon sites’ in the Murray River

system. The Commonwealth Environmental Water Office is represented on *The Living Murray* environmental watering group, which advises the Authority on the use of *The Living Murray* water. The involvement of the Commonwealth Environmental Water Office in the environmental watering group helps to coordinate the use of environmental water from the Commonwealth, *The Living Murray* and state sources.

3.5 Communications and stakeholder engagement

The objectives of the communications and stakeholder engagement activities of the Commonwealth Environmental Water Office in 2012–13 are to:

- support transparent and accountable management of Commonwealth environmental water;
- improve public understanding of the use and outcomes of Commonwealth environmental water; and
- strengthen relationships with partners and other stakeholders to support efficient and effective delivery of Commonwealth environmental water.

The Commonwealth Environmental Water Office has developed channels for communication and stakeholder engagement through its network of environmental water partners. In addition, it actively participates in environmental water advisory groups where they exist and is a member of New South Wales State Water Corporation Customer Service Committees.

In 2012–13, the Commonwealth Environmental Water Office will seek to increase engagement with stakeholders and the community and will also seek to make information about environmental watering more accessible to the public through the following activities:

- improvement of the Commonwealth Environmental Water Office website, which includes detailed information about environmental watering activities in each catchment throughout the Basin. The website also includes information about environmental water needs and options for environmental water delivery, photos and video of environmental watering events, and provides an avenue for people to make comments and suggestions on the use of Commonwealth environmental water;
- regularly engaging with stakeholders on a catchment-by-catchment basis, and with peak bodies;
- providing information about environmental watering actions and management through the annual report and outcomes report;
- providing regular electronic updates to stakeholders on environmental watering actions;
- issuing local media releases on environmental watering actions and outcomes; and
- developing a range of communication products to raise awareness about Commonwealth environmental water.

A comprehensive Commonwealth Environmental Water Office stakeholder list will be developed to assist with better targeted communication with key stakeholders. A Commonwealth Environmental Water Office Stakeholder Engagement Strategy will also be developed to better focus efforts on engaging with stakeholders on Commonwealth environmental water policies, programs and operations.

They will work with a wide range of stakeholders to achieve a good understanding of the Commonwealth Environmental Water Office policies, programs and operations. They will also work with local bodies and networks to provide advice on the use and management of Commonwealth environmental water, communicate with landowners who may potentially be impacted by delivery of environmental water, and provide feedback on community concerns about environmental policies and programs.

To receive updates about Commonwealth environmental watering in the Murray-Darling Basin, visit:

<http://www.environment.gov.au/ewater/contacts/subscribe.html>

4. Financial management and accountability

This section describes budget and financial management arrangements, administration of the Environmental Water Holdings Special Account, the register of holdings and reporting arrangements.

4.1 Budget and financial management

The budget for the Commonwealth Environmental Water Office in 2012-13 is included in Table 1 below.

Table 1: Commonwealth Environmental Water budget 2012-13

Funding	\$ million
Departmental (less corporate contribution)	12.030 (3.818)
Total	8.212
Program	\$ million
Administered: Environmental Water Holdings Special Account	21.000
Total	21.000

The functions and activities of the Commonwealth Environmental Water Office are conducted in accordance with established Departmental financial arrangements. The Department has made arrangements to support the Commonwealth Environmental Water Holder in the following areas:

- financial systems for managing expenses;
- the holdings register and the Special Account;
- legal and technical advice on Commonwealth environmental water functions; and
- the provision of funding for Departmental expenses.

4.1.1 The Environmental Water Holdings Special Account

The Environmental Water Holdings Special Account (the Special Account) is established under s. 111 of the Act and administered in accordance with the Act and Part 4 of the *Financial Management and Accountability Act 1997* (Cth). Entitlements in the holdings are administered assets and liabilities of the Department.

The Special Account will be used to pay for:

- rates and charges;
- pumping;
- monitoring and evaluation;
- works and measures; and
- development of environmental registers and systems.

An indicative breakdown of expenditure from the Special Account (over seven years) is included in Table 2 below.

Table 2: Special Account expenditure

Item	Percentage of budget
Rates and charges	65
Pumping	5
Monitoring and evaluation	18
Works and measures	9
Development of environmental registers and systems	3
Total	100

Allowable debits are specified in ss. 113(2–3) of the Act, and comprise the costs and expenses incurred in performing statutory functions and meeting the expenses of administering the Special Account. The largest costs are holding and use costs, which comprise fixed and variable fees and charges paid to infrastructure owners and water management agencies. The variable component depends on the annual amount of water allocated to the entitlement and the amount of water used.

The Act specifies that the Commonwealth Environmental Water Holder is to administer the Special Account on behalf of the Commonwealth. The Commonwealth Environmental Water Holder may delegate some or all of this administration to a Senior Executive Officer in accordance with s. 117 of the Act.

Section 112 of the Act specifies the allowable credits, which are:

- appropriations for the Special Account;
- amounts received by the Commonwealth in the performance of the Commonwealth Environmental Water Holder's functions;
- amounts received from Basin states;

- amounts received from the sale of property paid for from the Special Account; or
- donations.

The Act requires the Commonwealth Environmental Water Holder to report annually on the management of the Special Account. This will be undertaken in conjunction with the Department, which is required to report on the Special Account in its financial statements.

The Special Account is audited as part of the audit of the Department's financial statements.

4.2 The annual report

The Commonwealth Environmental Water Holder is required to provide the Minister with an annual report as soon as practicable following 30 June of each year (s. 114(1)). The annual report must provide information on achievements against the objectives of the environmental watering plan, management of the Special Account, and any directions that the Minister and the Secretary have given to the Commonwealth Environmental Water Holder (s. 114(2)).

The annual report is published in the Department's annual report in accordance with the *Public Service Act 1999* (Cth).

The annual report will be prepared in consultation with the relevant areas of the Commonwealth Environmental Water Office with assistance of a professional writer.

4.3 Compliance

The Commonwealth Environmental Water Holder and the Commonwealth Environmental Water Office must comply with the legislative obligations, procedures and policies of the Australian Government and the Department. The Commonwealth Environmental Water Holder has specific obligations under the Act in addition to obligations under the:

- *Financial Management and Accountability Act 1997*, such as to ensure efficient, effective and ethical use of Commonwealth resources;
- *Financial Management and Accountability Regulations 1997*, such as the Commonwealth Procurement Guidelines;
- *Department Chief Executive Instructions*, such as financial delegations; and
- other relevant legislation including the *Public Service Act 1999* and the *Freedom of Information Act 1982*.

4.3.1 Confidentiality of information and conflicts of interest

The procedures and policies of the Australian Government and the Department apply for the handling of confidential information and conflicts of interest. The services of an expert probity advisor have been engaged to provide assurance of the compliance with relevant government policies and legislation.

4.3.2 Information management

The Commonwealth Environmental Water Office maintains records in accordance with the requirements of the *Freedom of Information Act 1982*, the Department and the Australian Government, including:

- any directions from the Minister or the Secretary, and the response to those directions;
- watering agreements, the activities undertaken through those watering agreements, and their outcomes;
- dealings in holdings and holdings allocations; and
- advice received on environmental watering priorities.

4.3.3 Knowledge management

The knowledge needs to inform the management of environmental water are focused around three key themes:

- systematic decision making;
- ecological requirements and response to flow; and
- operational and portfolio management of environmental water.

The Commonwealth Environmental Water Office is not a research agency or research funding body, but seeks to use the best available science and information to support its functions. These needs will be pursued through the *National Water Knowledge and Research Platform*, once agreed.

Where appropriate, the Commonwealth Environmental Water Office will also work with relevant organisations and research initiatives to obtain knowledge to support its activities, including CSIRO's Ecological Responses to Altered Flow Regimes Cluster, the National Environmental Research Program, the Bureau of Meteorology and the Murray-Darling Basin Authority, among others.

In 2012–13, a major focus will be to progress the development of systematic approaches to decision making in order to prioritise the supply of environmental water to meet ecological requirements across the Basin as an integrated system. Knowledge of ecological requirements and response, as well as operational and portfolio management, will directly inform these approaches, as well as allowing for adaptive management, monitoring of outcomes and efficient and effective use of environmental water. Access to hydrometric data will also support these processes.

The Commonwealth Environmental Water Office, in partnership with the Murray-Darling Basin Authority, has developed an Environmental Asset Database. The database stores information on environmental assets and environmental watering across the Murray-Darling Basin, and will inform implementation of the Basin Plan and management of Commonwealth environmental water. Over the course of 2012-13, a key consideration in implementing the Environmental Asset Database will be how to make the information in the database available to other parties.

The Commonwealth Environmental Water Office will continue to use and improve information on the environmental assets in the Murray-Darling Basin. This work will be undertaken with the Authority and in consultation with other Commonwealth entities, Basin state governments, environmental water holders and managers, local groups (such as catchment management authorities), landholders and research institutions.

4.3.4 Internal reporting

The Commonwealth Environmental Water Office will ensure that the Department and the Minister are kept regularly informed about:

- the use of Commonwealth environmental water holdings;
- forecast positions in relation to the holdings and their use; and
- the development of tools and resources to assist us in meeting any statutory requirements.

4.3.5 Risk management

The development and implementation of risk management guidance is a key instrument supporting good governance in decision-making across the range of Commonwealth environmental watering activities. Managing the risks associated with the Commonwealth watering activities helps to ensure that:

- there are minimum unintended impacts;
- maximum environmental outcome is achieved;
- there is efficient and effective use of environmental water; and
- there is a high standard of stewardship of Commonwealth assets.

Prior to the use of any water, the Commonwealth Environmental Water Office undertakes appropriate risk identification, assessment and management to ensure that all risks are appropriately identified, assessed, treated and mitigated. The approach is in accordance with the Australian standard for risk management (AS/NZS ISO 31000) and is informed by a range of sources, including information from delivery partners, on-ground delivery officers and the local community. It takes into account information on previous water use at the site and at connected locations downstream. Risk assessments are updated regularly as new information arises or situations change.

The Commonwealth Environmental Water Office generally enters into arrangements with relevant Basin state governments, and with other environmental water managers or catchment management authorities to facilitate the delivery of environmental water, including appropriate risk mitigation measures. These delivery partners work with river operators to arrange for the release of the water, or in unregulated rivers, to implement water shepherding. In these cases, the Commonwealth does not have direct control over the release of water, and so there are responsibilities on the other authorities who undertake on-ground management.

Where inundation of land may create risk to people or property, the Commonwealth seeks assurance that the following management actions are undertaken prior to water delivery:

- all potentially affected landowners and nearby communities are made aware of the proposed watering event, its extent, duration and timing through appropriate communication channels (e.g. media, written notification) as soon as the details of the proposed action have been determined;
- the consent of all potentially affected landowners has been obtained (or is provided for through prior agreement, including through easements);
- adequate monitoring of flow conditions is in place prior to and for the duration of the event; and
- sufficient operational control exists to enable immediate cessation of an event due to unforeseen circumstances.

Subject to the nature of the event, additional management actions are undertaken as required, in cooperation with water delivery partners.

All watering events are subject to appropriate mitigation controls. Any watering event with an unacceptable level of risk (after mitigation measures are applied) will not proceed.

In circumstances where the Commonwealth Environmental Water Office has a more direct role in water delivery through the engagement of river and other infrastructure operators, including contractors, the Commonwealth Environmental Water Office will ensure that all relevant risks are adequately mitigated through arrangements with those parties.

Following a comprehensive review of potential strategic risks to the management of Commonwealth environmental water, a revised risk mitigation and treatment plan for the Commonwealth Environmental Water Office function as a whole will be implemented in 2012-13.

Glossary

Allocation	A volume of water allocated for use in any year under a <i>water right</i> .
Basin Plan	The plan for water management in the Murray–Darling Basin under Part 2 of the <i>Water Act 2007</i> (Cth), to be developed by the Murray–Darling Basin Authority and passed into legislation by the Minister.
Entitlement	Common name for a <i>water right</i> issued under state and territory legislation.
Environmental watering plan	Part of the <i>Basin Plan</i> that deals with managing water designated for the protection and restoration of environmental assets, as detailed in s. 28 of the <i>Water Act 2007</i> (Cth).
Holdings	All <i>water rights</i> owned by the Commonwealth, except those that are not for the purpose of water management under the <i>Water Act 2007</i> (Cth). The holdings include all Commonwealth-owned water rights that are held for the purpose of protecting or restoring environmental assets.
Gigalitres (GL)	One billion litres, or one square kilometre of one-metre-deep water.
Operating rules	The Minister may, with the approval of the Australian Parliament, make operating rules that provide general direction to the Commonwealth Environmental Water Holder around <i>water trading</i> . This is found in s. 109 of the <i>Water Act 2007</i> (Cth).
Planned environmental water	Water or <i>water rights</i> designated for specific environmental purposes under state water-management regimes.
Southern-connected rivers	Rivers located within the southern part of the Murray–Darling Basin with permanent (or near permanent) hydrologic connection, allowing water from upstream catchments to be used in downstream catchments. The major southern-connected rivers include: <ul style="list-style-type: none"> • Murray River • Murrumbidgee River • Darling River downstream of Menindee Lakes • Goulburn River • other rivers of northern Victoria within the Murray–Darling Basin.
Special account	The Environmental Water Holdings Special Account established under s. 111 of the <i>Water Act 2007</i> (Cth), which is to be managed by the Commonwealth Environmental Water Holder.
Tagged trading	A trading arrangement under which every <i>allocation</i> under a <i>water right</i> is made available for use in a catchment that is different from the source catchment. <ul style="list-style-type: none"> • The <i>water right</i> retains its original source location and characteristics. • A person who has obtained a <i>water right</i> by tagged trading owns the water right in the source catchment, but may also need a water-use right in the delivery catchment. • Intrastate tagged trades are made under state legislation. Interstate trades are made under state legislation and the Murray–Darling Basin Agreement.
Term transfer	A fixed-term transfer of <i>allocations</i> under a <i>water right</i> to another person.
Water right	Any <i>water right</i> (or share in a <i>water right</i>) conferred under state law to hold or take a nominal volume of water from a water resource, usually in the form of an annual <i>allocation</i> . The actual volume of each <i>allocation</i> varies from year to year, depending on the amount available. Water rights issued in each state are referred to by different names: <ul style="list-style-type: none"> • entitlement (New South Wales) • water share (Victoria) • supplemented allocation (Queensland) • water-holding allocation (South Australia).
Water shepherding	Water shepherding provides for the legal protection, effective use and accurate accounting of Commonwealth environmental water in unregulated streams to ensure that the substantial Commonwealth investment under <i>Water for the Future</i> is protected and the objectives of the <i>Water Act 2007</i> (Cth) are met.

Water trading	Transfer of water or a <i>water right</i> from one person to another. Water trading includes purchasing, disposing of, and otherwise dealing in water and <i>water rights</i> .
Water year	The 12-month period during which a volume of water is allocated to a <i>water right</i> . The water year is typically 1 July – 30 June, with some exceptions in the northern Murray–Darling Basin.

Appendix A

Structure of the Commonwealth Environmental Water Office

The Commonwealth Environmental Water Holder is supported by the Commonwealth Environmental Water Office which is based within the Department of Sustainability, Environment, Water, Population and Communities.

At June 2012, the Commonwealth Environmental Water Office comprised two branches, Environmental Water Delivery, and Policy and Portfolio Management.

Environmental Water Delivery Branch

The Environmental Water Delivery Branch is responsible for the delivery, monitoring and evaluation of Commonwealth environmental water use. The branch consists of three sections:

- Southern Basin Delivery
- Northern Basin Delivery
- Program Evaluation

The Southern Basin Delivery section is responsible for planning and delivery of environmental water in the South Basin, comprising the Murray catchment, Victorian catchment, the lower Darling catchment and the Murrumbidgee catchment. This section is also involved with *The Living Murray* environmental watering group.

The Northern Basin Delivery section is responsible for planning and delivery of environmental water in the northern part of the Murray-Darling Basin, comprising the Lachlan catchment and the Darling River catchment upstream of Menindee Lakes including its tributaries in New South Wales and Queensland.

The Program Evaluation section is responsible for the evaluation of the uses of Commonwealth environmental water, reporting and information management.

Policy and Portfolio Management Branch

The Policy and Portfolio Management branch is responsible for managing the portfolio of Commonwealth environmental water assets and providing policy advice in support of the Commonwealth Environmental Water Holder. The branch consists of four sections:

- Environmental Water Policy
- Water Holdings
- Portfolio Management
- Stakeholder Engagement and Reporting

The Environmental Water Policy section provides policy advice including on the development of improved business and operational frameworks, including in relation to risk management.

The Water Holdings section is responsible for the administration of the water holdings register and the Environmental Water Holdings Special Account. This includes budgeting for, and reporting on, the holdings and associated costs. The section also administers water transfers to make water available for delivery of to implement trading actions.

The Portfolio Management section advises on management of the water portfolio, including its composition, acquisitions, trading and carryover strategies.

The Stakeholder Engagement and Reporting section is responsible for managing stakeholder engagement activities, and for the preparation of public reporting, including the annual report, outcomes report and website information.

Appendix B

Criteria for assessing options for Commonwealth environmental water use

In undertaking its activities, the Commonwealth Environmental Water Holder is required to act consistently with the requirements of the Act. The relevant functions are outlined in s. 105. This includes a requirement that the environmental water holdings be managed in accordance with the environmental watering plan of the Murray-Darling Basin Authority. Close consultation is occurring with the Authority to ensure that use of Commonwealth environmental water is consistent with the emerging objectives of the environmental watering plan that is currently being developed.

A long-term framework for the prioritisation of environmental water allocations has been prepared in consultation with delivery partners, interested stakeholders and experts, and the Environmental Water Scientific Advisory Panel.

The framework includes ecological objectives that will change under the different water availability scenarios (very dry, dry, moderate, wet and very wet as outlined in [Table 1](#) below). Proposed water use will need to be supported by available evidence, and be consistent with current water availability scenarios and the framework.

Commonwealth environmental water is being acquired to supplement existing flows. Proposals for use of the water will not be agreed to if this use substitutes for other water uses, including historical system operations (e.g. provision of water for conveyance, stock and domestic, or planned environmental water).

Through adaptive management processes, any opportunities for a more informed and diverse range of water uses as knowledge and modelling improves will be considered. All proposals will be assessed against the criteria listed here.

1. The ecological significance of the asset(s)

Issues to be considered:

- The presence of threatened species and ecological communities, and listed migratory species.
- Ecological and conservation values of the asset(s), including those recognised by international agreements.

2. The expected ecological outcomes from the proposed watering action

Issues to be considered:

- How well defined and realistic the objectives are for the proposed watering action.

- The consistency of these objectives with the overall Commonwealth Environmental Water Holder ecological objectives for the current forecast water availability scenario.
- The current health of the asset(s).
- The improvement in health of the asset(s) expected from the watering action.
- The Basin-wide significance of the ecological response from the watering action.
- Any secondary environmental effects expected to result from the watering action (e.g. connected system benefits).
- The change in the health of the asset(s) expected if environmental water is not provided.

3. The potential risks of the proposed watering action at the site and at connected locations

Issues to be considered will include:

- How thoroughly the potential risks have been assessed for the proposed watering.
- The adequacy of measures proposed to minimise these risks.
- The likelihood and consequence of variance from the expected ecological outcome (including negative impacts on biota and water quality).

4. The long-term sustainability of the asset(s) including appropriate management arrangements

Issues to be considered will include:

- The adequacy of long-term management and delivery arrangements.
- The existence of complementary natural resource management activities supporting the long-term management arrangements, including those that improve water quality.
- The effectiveness of monitoring, evaluation and reporting arrangements for the watering activity including clear links to the defined objectives.

5. The cost-effectiveness and operational feasibility of undertaking the watering

Issues to be considered will include:

- The amount of Commonwealth water and resources needed, including relative to the contribution of the state and delivery partner, the arrangements for the delivery of water to the asset(s), including the potential for transmission losses and the adequate accounting of flows.

- Opportunity to supplement natural flows or other water releases.
- The operational feasibility of undertaking the watering action (e.g. channel capacity, infrastructure constraints, etc).

Appendix C

Defining environmental assets

Under the *Water Act 2007* (Cth) (the Act), environmental assets are defined to include:

- water-dependent ecosystems;
- ecosystem services; and
- sites with ecological significance.

Commonwealth environmental water is to be managed for the purpose of protecting or restoring the environmental assets so as to give effect to relevant international agreements.

The relevant international agreements are the:

- Convention on Wetlands of International Importance (Ramsar Convention);
- Convention on Biological Diversity (Biodiversity Convention);
- United Nations Convention to Combat Desertification (Desertification Convention);
- United Nations Framework Convention on Climate Change (Climate Change Convention);
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention); and
- migratory bird agreements that Australia has signed with China, Japan and South Korea.

The Act further defines relevant international agreements as any other international convention to which Australia is a party, and that is relevant to the use and management of the Murray-Darling Basin water resources and is prescribed by the regulations of the Act.

The range of actions that would give effect to these agreements is very broad; for example, although specific wetlands in the Basin are listed under the Ramsar Convention, this convention requires signatory states to generally promote the wise use of all wetlands within their territory. Similarly, the Biodiversity Convention requires signatory states to promote the protection of ecosystems and natural habitats, and the maintenance of viable populations of species in natural surroundings.

Table 1 Ecological objectives in different water availability scenarios					
	Very dry	Dry	Median	Wet	Very Wet
Ecological watering objectives	<ul style="list-style-type: none"> • Avoid damage to key environmental assets 	<ul style="list-style-type: none"> • Ensure ecological capacity for recovery 	<ul style="list-style-type: none"> • Maintain ecological health and resilience 	<ul style="list-style-type: none"> • Improve and extend healthy and resilient aquatic ecosystems 	<ul style="list-style-type: none"> • Build future capacity to support ecological health and resilience
Management objectives	<ul style="list-style-type: none"> • Avoid critical loss of threatened species and communities • Maintain key refuges • Avoid irretrievable damage or catastrophic events 	<ul style="list-style-type: none"> • Support the survival and growth of threatened species and communities, including limited small-scale recruitment • Maintain diverse habitats • Maintain low-flow river and floodplain functional processes in sites and reaches of priority assets 	<ul style="list-style-type: none"> • Enable growth, reproduction and small-scale recruitment for a diverse range of flora and fauna • Promote low-lying floodplain–river connectivity • Support medium-flow river and floodplain functional processes 	<ul style="list-style-type: none"> • Enable growth, reproduction and large-scale recruitment for a diverse range of flora and fauna • Promote higher floodplain–river connectivity • Support high-flow river and floodplain functional processes 	<ul style="list-style-type: none"> • Support growth, reproduction and large-scale recruitment for a diverse range of flora and fauna • Sustain higher floodplain–river connectivity • Support high flow river and floodplain functional processes
Management actions	<ul style="list-style-type: none"> • Provide water for refugia and sites supporting threatened species and communities • Undertake emergency watering at specific sites of priority assets • Use carryover volumes to maintain critical needs • Allow drying to occur, where appropriate 	<ul style="list-style-type: none"> • Provide water for refugia and sites supporting threatened species and communities • Provide low flow and freshes in sites and reaches of priority assets • Use carryover volumes to maintain follow-up watering • Allow drying to occur consistent with the natural wetting-drying cycle. 	<ul style="list-style-type: none"> • Prolong flood/high-flow duration at key sites and reaches of priority assets • Contribute to the full range of in-channel flows • Use carryover to provide optimal seasonal flow patterns in subsequent years 	<ul style="list-style-type: none"> • Increase flood/high-flow duration and extent across priority assets • Contribute to the full range of flows, including over bank • Use carryover to provide optimal seasonal flow patterns in subsequent years 	<ul style="list-style-type: none"> • Maintain flood/high-flow duration and extent across priority assets, where feasible • Contribute to the full range of flows incl. over-bank, where feasible • Use carryover to provide reserves for future years

Appendix D

Environmental Water Partners

“Environmental Water Partners” means: any person or entity with which there is a relationship that supports the management of Commonwealth environmental water, including entities engaged indirectly through other partners.

South Australia

- Department for Water
- Department of Environment, Water and Natural Resources

Regional and local land managers

- South Australian Murray-Darling Basin Natural Resource Management Board
- Overland Corner Branch of the Natural Heritage Trust
- Overland Corner Wetland Rehabilitation Group
- Wetlands Habitat Trust and Paiwalla Pty Ltd
- Nature Foundation SA

Victoria

- Department of Sustainability and Environment
- Parks Victoria
- Victorian Environmental Water Holder

Regional and local land managers

- Mallee Catchment Management Authority
- Overland Corner Branch of the Natural Heritage Trust
- North East Catchment Management Authority
- Goulburn-Broken Catchment Management Authority
- Sunraysia Bird Monitors

Water management authority

- Goulburn-Murray Water
- Coliban Water

New South Wales

- Office of Environment and Heritage (including NSW Parks and Wildlife Service) – Department of Premier and Cabinet
- NSW Office of Water (Department of Primary Industries)
- NSW Fisheries (Department of Primary Industries)
- New South Wales Department of Trade and Investment, Regional Infrastructure and Services (NSW Trade & Investment)

Regional and local land managers

- Murrumbidgee Catchment Management Authority
- Murray Catchment Management Authority
- Central West Catchment Management Authority
- Lachlan CMA
- Namoi CMA
- Border Rivers-Gwydir CMA
- Western CMA
- Murray-Darling Wetlands Ltd
- Forests NSW
- Private landholders

Local Environmental Water Advisory Groups

- Southern connected needed here. These are not land management forums
- Lachlan Riverine Working Group
- Macquarie Environmental Flows Reference Group
- Gwydir Environmental Contingency Allowance Operational Advisory Committee
- Border Rivers Environmental Water Network

Water management authority

- NSW State Water Corporation
- Murray Irrigation Limited
- Murrumbidgee Irrigation Limited

Queensland

- Department of Natural Resources and Mines (also a water management authority)
- Department of Environment and Heritage Protection
- Department Agriculture, Fisheries and Forestry

Water management authority

- Sunwater
- Border Rivers Commission

Regional and local land managers

- Queensland Murray-Darling Committee IncSouth West NRM Ltd
- The Condamine Alliance

Local Environmental Water Advisory Groups

- Border Rivers Environmental Water Network
- Lower Balonne Local Water Network (nascent)

Research Institutions

- Murray-Darling Freshwater Research Centre
- Charles Sturt University
- University of New South Wales
- CSIRO
- South Australian Research and Development Institute

Australian Government / Basin-wide Bodies

- Murray-Darling Basin Authority
- The Living Murray Initiative