

DRAFT ENVIRONMENTAL WATER  
PROVISIONS POLICY  
FOR WESTERN AUSTRALIA

**A Draft Policy Statement to Support  
Implementation of the COAG Water  
Reform Framework Agreement (1994)**

Water Reform Series, WR 4

February, 1999



WATER AND RIVERS  
COMMISSION

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# DRAFT ENVIRONMENTAL WATER PROVISIONS POLICY FOR WESTERN AUSTRALIA

**A Draft Policy Statement to support implementation of the COAG  
Water Reform Framework Agreement (1994)**

Water and Rivers Commission  
Policy & Planning Division

WATER AND RIVERS COMMISSION  
WATER REFORM SERIES  
REPORT NO WR 4  
1999



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# Acknowledgments

This draft policy paper has been prepared by staff of the Policy and Planning Division, Water and Rivers Commission.

The draft policy formalises current practice in water resources allocation planning with respect to Environmental Water Provisions that has evolved over the last five to ten years in WA.

The policy statement has been prepared following a major review of the Commission's current planning and policy approaches to defining environmental water provisions. This was conducted by Welker Environmental Consultancy during 1997 and 1998, and has assisted in formalising this draft policy.

## Reference details

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# Foreword

This draft policy statement has been prepared to seek public input to the Commission's approach to protecting water-dependent ecosystems when making water resource allocation decisions for the community. It is the fourth in a series of Water Reform discussion papers promoting public comment on proposals to update the law governing water resource management in Western Australia and to meet the Council of Australian Governments Water Reform Framework Agreement.

The Water and Rivers Commission is Western Australia's water resource management agency. It is the Commission's responsibility on behalf of the community to share water resources equitably between the needs of the environment, social needs and demands to consume water for economic benefit.

The Commission collects and analyses water resources information, prepares management policies, issues licences, regulates water use and protects the quality of the water and the water-dependent ecosystems. In discharging its responsibilities, the Commission is required to exercise judgement and discretion in protecting and controlling water use.

This draft policy describes the way the Commission intends to balance the productive use of water with protecting water-dependent ecosystems.

This policy is an integral part of the Commission's overall water allocation planning framework summarised in the Commission's guide to legislative change (Water and Rivers Commission 1998b).

Making provision for water for the environment is a primary element in the Commission's water allocation decision-making process. However, it is just one aspect of a multi-objective decision-making framework adopted by the Commission. Economic, social and environmental considerations are all important and all need to be considered when water allocation decisions are being made.

The Commission is seeking community and industry views on this draft environmental water provisions policy position.

Commission staff will be pleased to explain the policy to interested groups from the community and industry, and work with such groups to modify and improve it. Such consultation is an integral part of the Commission's policy development process.

The draft policy is also an important background to the second phase of consultation on the COAG allocation and trading reforms. It is for this reason that the draft has been published in the water reform discussion paper series.

A review of submissions and a modified policy will be prepared and submitted to the Commission's Board for final approval as Commission policy.

The policy will be incorporated into the Commission's water allocation planning and licensing procedures and any necessary modifications to water law included in the legislation reform program.

Submissions on the draft policy paper should be addressed to:

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Submissions received by 30 April 1999 will be considered. The draft will then be updated and a final policy approved by the Board of the Commission.



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# Summary

This policy statement explains the way the Commission decides how much water should be made available for the environment when making decisions about sharing (allocating the rights to use) water in Western Australia. The statement describes the guiding principles to be followed when making such decisions and outlines a water allocation planning framework in which they are to be applied.

## Allocation planning - guiding principles

The Commission has responsibility, on behalf of the community, to equitably share water resources between the needs of the environment, our social needs and our demands to consume water for economic benefit.

To fulfil this task, the Commission estimates the total water flow in a river, stream or through a groundwater system, works out how much is needed for the environment and then shares the remainder between public, agricultural and industrial uses.

In making such decisions the Commission has adopted some guiding principles:

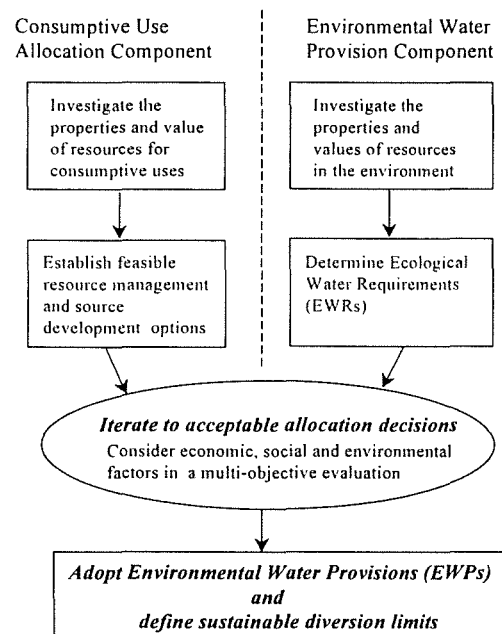
- Water use must be “sustainable”. That is, our allocation decisions must not significantly decrease the rights of future generations to benefit from water resources and they must not lead to significant environmental damage.
- Water use must be productive. When water is diverted from the environment it should be used productively for the benefit of Western Australians and the nation as a whole. The efficient use of water is expected.

## Providing water for the environment

The Commission has been guided by the “National Principles for the Provision of Water for Ecosystems” in the formulation of this policy. Key principles and processes to be used in Western Australia are discussed below. The main steps are shown in the associated diagram.

When sharing water between competing demands, the amount of water needed for the environment must be determined and provision made for it, before water is provided for other uses.

## Water Resource Allocation Planning



The best available information will be used to determine environmental water needs. The Commission will err on the side of caution if little scientific data are available.

The Commission implements these principles and processes when preparing water resource allocation plans. Broad strategic plans are prepared for regions that may cover many river or groundwater basins. More detailed plans are prepared to assist allocation decisions and licensing policy for individual water resources. These plans may cover all or part of a river catchment or sub-area of a groundwater aquifer where more detailed management is needed. Each plan will seek to meet all legitimate water needs and include explicit consideration of the water needs of the environment.

The Commission will prepare draft plans that allow public review of the proposed allocations. The plans enable review of the environmental water provisions by the Environmental Protection Authority (EPA). The Commission will finalise its plans after responding to comments from the community, the EPA and other agencies. When formally assessed under the *Environmental Protection Act 1986* conditions may be set that bind the Commission to implement environmental water provisions in specific ways.





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# 1. Introduction

## 1.1 Purpose

The Council of Australian Governments' (COAG) Framework Agreement on Water Resources Policy Reform requires a clear policy to ensure that the water needs of the environment are addressed in water allocation decision-making.

## 1.2 Background

The Commission and its predecessor organisations have for many years considered and protected the needs of water-dependent ecosystems. Operational practice and procedures evolved from early studies of the impacts of groundwater abstraction in the semi-arid Pilbara region beginning in the 1970s and the Perth area during the 1980s. Consideration of the needs of the environment is now well developed in groundwater allocation planning and management and is being introduced to the management of surface water resources.

However, no current policy statement exists that *ensures* the water needs of the environment are addressed in allocation decision-making.

A statewide policy statement on environmental water provisions is particularly important now since:

- the COAG Framework Agreement requires environmental water to be formally recognised in the State's water allocation processes;
- the institutional framework for water resource management in Western Australia has changed in recent years and the Water and Rivers Commission needs to formally establish its approach to environmental water provisions;
- new policy issues are raised by the move to clearer and tradable water rights under the COAG Framework Agreement on Water Resources Reform; and
- a broadening of current practice is required to give greater consideration of ecosystems that may be dependent on surface water resources.

To help each state fulfil its responsibility under the COAG Water Reform Framework Agreement the

Agricultural and Resource Management Council of Australia and New Zealand (ARMCANZ), jointly with the Australian and New Zealand Environment and Conservation Council (ANZECC) has prepared national principles to guide the provision of water for ecosystems (ARMCANZ/ANZECC, 1996).

This draft policy statement for Western Australia seeks to meet these national principles through building on the current philosophy of approach and practices in Western Australia. It also seeks to incorporate additional commitments to overcome limitations with current practices identified from an independent review of the Commission's current approaches (Welker 1998).

## 1.3 Ecological water requirements and environmental water provisions

The Western Australian approach to ensuring that provision is made for the environment in water allocation decision-making uses the concepts of Ecological Water Requirements (EWRs) and Environmental Water Provisions (EWPs). These concepts are consistent with the approach set out in the National Principles (ARMCANZ/ANZECC 1996), although there has been some refinement in terminology and definitions.

*Ecological Water Requirements (EWRs) are the water regimes needed to sustain key ecological values of water-dependent ecosystems at a low level of risk.* EWRs are determined on the basis of the best scientific information available and are used as the primary consideration in the establishment of Environmental Water Provisions. They consider only ecological issues.

*Environmental Water Provisions (EWPs) are the water regimes that are to be maintained. They are set by water allocation decisions that may involve some compromise between ecological, social and economic goals.*

That is, EWPs define water regimes that protect ecological and social values of water resources, to levels consistent with the allocation decisions made. The degree to which ecological, social and economic goals are met will vary from case to case.



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## 2. Current practice — a basis for policy

### 2.1 Introduction

The Water and Rivers Commission, and the former Water Authority of WA, have evolved current practices for determining environmental water provisions through managing practical water allocation issues in the public domain over the past two decades. Key factors and influences that have shaped current practice include:

- experience with planning and implementing ways to minimise or manage the environmental impact of water use;
- community and agency input (especially from the EPA) during the reviews of the environmental impact of water source developments and water allocation plans;
- the input of key stakeholder groups including the former Western Australian Water Resources Council and the Conservation Council of WA; and
- the views of individuals who contributed to the Western Australian input to the ARMCANZ and ANZECC Policy Position Paper entitled “National Principles for the Provision of Water for Ecosystems”.

Given this history, the current practices provide a sound basis from which to develop a new Environmental Water Provisions Policy Statement.

Providing water for the environment is a very important element in the Commission’s water allocation decision-making process. However, it is just one aspect of a multi-objective decision-making framework adopted by the Commission. Economic, social and environmental considerations are all important and all need to be considered when water allocation decisions are being made.

### 2.2 Review of current practices

To develop this EWP policy, the Commission sought an independent review of its current environmental water provisions planning processes (Welker 1998). The review documented the current practices and evaluated them for compliance with the COAG Framework Agreement on Water Resource Policy and the National Principles for the Provision of Water for Ecosystems (ANZECC/ARMCANZ 1996). The

review found they were generally in accordance with these requirements, but improvements were recommended. The key aspects of the review are summarised below.

#### 2.2.1 Key features of current practice

The provision of water for the environment is considered at each of the following three planning levels in Western Australia:

- *Regional Allocation Planning* in which beneficial uses and environmental values are assigned to regionally significant water resources and a preliminary indication of the quantity of water that may be diverted from the region is provided.
- *Sub Regional Planning* in which bulk water allocations to particular consumptive uses are specified, where the cumulative effect of potential source developments on the environment can be assessed and EWPs can be more explicitly incorporated in planning and environmental decisions.
- *Management Area Planning* in which a study area covering part of a single water resource is defined (e.g. a groundwater sub-area), EWPs for the area are established, the quantity of water that can be sustainably diverted determined. Allocations to specific future uses or purposes, and the future water allocation licensing can then be policy defined.

Water allocation planning decisions are implemented through issuing water licences under the *Rights in Water and Irrigation Act 1914*. EWPs are reflected as constraints and conditions on the water quantities licensed under this Act. EWPs can also be established through environmental conditions set on the implementation of (water development) proposals such as dams or groundwater schemes.

While the water planning and licensing processes are responding to the institutional changes in the water industry in 1996, the basic planning and licensing hierarchy remains the same. Within this hierarchy, the process and procedures for environmental water requirements and environmental water provisions are well developed for groundwater regimes, particularly



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as applied at the sub-regional and management area planning scales.

Local groundwater licensing policies ensure that the total licensed quantities remain within sustainable levels and adverse environmental impacts are minimised. Water management regimes that seek to protect key environmental features of wetland or vegetation systems are developed as an integral part of seeking environmental approval for the new water allocation plan or source development proposal. In this way potential consumptive use volumes (or sustainable diversion volumes) are defined after first considering the needs of the environment. The EPA may consider the plan or proposal, and, when formally assessed under Part IV of the *Environmental Protection Act 1986*, may propose binding EWRs on the proponent. Following completion of negotiation, appeal and decision processes, the Minister for the Environment sets down conditions of implementation that give the final EWRs the force of law.

Methodologies for determining EWRs for surface water systems are now being developed and applied in Western Australia. Environmental impact assessment of surface storages has, in the past, focused on the direct effects of the impoundment of water with some consideration of downstream effects. Scientific methodologies for determining surface water EWRs were first promoted at the national level in the early 1990s. The “holistic approach” of Arthington et al. (1992) has been trialed in a research context on the lower reaches of the Dandalup River system, downstream of the North and South Dandalup Dams, and applied recently in the Commission’s “Proposed Harvey Basin Surface Water Allocation Plan” (Water and Rivers Commission 1998a).

As defined in Section 1.3, EWRs are the outcomes of water allocation decisions that may involve some trading off between ecological, social and economic goals. Consequently, they may be less than EWRs where some ecological impact is accepted as a trade-off to meet social or economic goals. However, if cautious allocation decisions are made, EWRs can be set to meet the EWRs. This approach has been used successfully in groundwater management situations in Western Australia.

By definition EWRs include water regimes that seek to maintain social values as well as ecosystem protection.

In some situations, therefore, EWRs provide additional constraints on sustainable diversion limits over and above those of EWRs alone. This is most likely to be the case in surface water systems where protection of recreational or other social values is of high importance and require the maintenance of significant in-stream water regimes during periods of naturally low flow.

### 2.2.2 A generalisation of past practices

Given this background, a general approach to the establishment of EWRs for both groundwater and surface waters has been evolving. This process has been carried out with active public consultation and usually has involved the following steps:

1. Identification of key ecological values supported by the water system.
2. Determination of vital or important components of the ecosystem and ecosystem processes which support key ecological values and which are sensitive to changes in the water regime.
3. Determination of water requirements (EWRs) for the most sensitive components of the ecosystem that preserve these key ecological values.
4. Modelling the water resource system to estimate water available for consumptive use with and without EWRs.
5. Formulation of management objectives for the water resource system, including social water requirements.
6. Proposing EWRs using existing information on EWRs and considering any trade offs that may be required to meet vital consumptive and social uses.
7. Determination of proposed quantities of water available for consumptive uses (the sustainable diversion volumes), after first allowing for EWRs.
8. For environmentally significant projects:
  - (a) review of the proposed EWRs and associated estimates of the water available for consumptive use, by the EPA under the provisions of the *Environmental Protection Act*,
  - (b) adoption, by the Minister for the Environment, of an EWR regime and any requirements for further investigations necessary to refine the EWR/EWP regime in the future.
9. Adoption, by the Water and Rivers Commission, of a compatible water allocation licensing policy for



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managing the consumptive water use in the study area.

10. Review of EWRs/EWPs as information becomes available from monitoring and further research.

Implicit in this approach is that EWPs cannot be tradable. Only water that is in excess of EWPs (by definition) may become available for consumptive uses. Water use licences specify consumptive use rights that are planned to become tradable under current law reform proposals (Water and Rivers Commission 1997a, 1998).

### **2.2.3 Consistency with the national framework for provision of water to the environment**

The independent review of current approaches to setting EWPs in Western Australia (Welker 1998) identified the following perceived deficiencies between the present practice and the national framework principles:

- lack of a formal policy for the application, consideration and determination of EWPs;
- lack of legislative backing for allocation planning decisions within the framework of water law, including explicit requirements for water managers to address the water needs of the environment;
- allocation plans not being in themselves legally binding on subsequent decisions of the Water and Rivers Commission until they are implemented through licensing decisions;<sup>1</sup>
- lack of a formal procedure for the preparation of allocation plans that guarantees community, stakeholder and government agency involvement in the water allocation planning process;
- inconsistencies between procedures for licensing and the establishment of EWPs for groundwater and surface waters.

The following section sets out a draft policy to address these concerns.

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<sup>1</sup> EWP requirements are legally binding, however, where allocation plans are assessed under the provisions of the *Environmental Protection Act, 1986*.



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## 3. Draft environmental water provisions policy statement

### 3.1 The Commission's guiding principles

A draft policy for the application and determination of Environmental Water Provisions (EWP) is proposed that is consistent with the national framework. The policy establishes a set of guiding principles for WA to develop a policy framework for providing water to the environment, based on the National Principles for the Provision of Water for Ecosystems. They are:

1. Water allocation decisions will be based on first ensuring that essential natural ecological processes and the bio-diversity of water-dependent ecosystems are maintained.
2. Key ecological values that encapsulate the natural ecological processes and bio-diversity elements worthy of protection at regional, sub-regional and management area scales will be defined on an area by area basis.
3. The EPA has a primary role in setting environmental objectives and outcomes that will guide the selection of key ecological values.
4. The Commission will determine the water regimes needed to maintain key ecological values at a low level of risk. These ecological water requirements or EWRs will be determined on the basis of the best scientific information available.
5. The Commission will aim to meet all EWRs when optimising the environmental, economic and social effects of possible water allocation strategies and when adopting environmental water provisions or EWP — the water regimes that are to be met to protect the environment.<sup>2</sup>
6. A conservative approach will be taken to the estimation of EWRs and interim EWP in allocation planning and licensing processes where

scientific knowledge of ecosystem requirements is limited.

7. In cases where, for economic or social reasons, the Commission proposes not to fully meet all EWRs, and where the environmental effect may be significant, the Commission will refer the proposal to the EPA for review and decision by the Minister for the Environment<sup>3</sup> under the *Environmental Protection Act*.
8. In proposing EWP for developed, partly developed or altered water resource systems, consideration will be given to the environmental changes that have occurred due to past flow regulation, water abstraction, adjacent land uses or water quality effects, as well as the capacity for restoration of the altered ecosystems.
9. If, after EWP have been set, they cannot be met in the short term because of allocations to existing users, a strategy will be prepared to ensure such provisions are met within the minimum practicable time.
10. The allocation planning and licensing processes will allow for regular review of allocations and EWP to consider the implications of improved knowledge of hydrology, ecology, climate change and community values for water management issues.
11. EWP will not be part of any market in tradable water entitlements.<sup>4</sup> However, if, following a review of EWP through a public planning process, a reduction in the water available for allocation results, the Commission may purchase entitlements as one means, among others, of reducing the licensed use to sustainable levels.
12. Water to maintain recreational values and to improve water quality (e.g. flushing algal blooms) is additional to EWRs, and should be met from un-

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<sup>2</sup> In addition to ecological elements, EWP may include elements that protect social, recreational, cultural, safety and health values of water. EWP can therefore result in additional constraints on harnessing water over and above those set when only ecological constraints (EWR) are met. Often, however, all EWR are not met and the final EWP result in few constraints on consumptive use.

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<sup>3</sup> The Minister for the Environment may also make determinations on social, recreational, and cultural elements of EWP.

<sup>4</sup> Water entitlements are defined through licences to use water, issued by the Commission, or contractual arrangements between water licence holders and their customers.



- allocated water where available. EWPs may incorporate these needs.
13. Users are responsible for the efficient use of their licensed water allocation and for minimising any ecological damage from their use.
  14. Further allocations to new consumptive uses should only occur where EWPs are being met.
  15. Legislative support for water allocation planning is required. The allocation planning processes will explicitly recognise the needs of the environment and include public review of draft allocation plans. The public review should be integrated with the concurrent review of the EWP aspects of the plan under the *Environmental Protection Act*.
  16. The Minister for Water Resources will approve the overall allocation plan. Where plans are formally assessed under the State's environmental legislation, the Minister for the Environment will have final decision-making authority on the EWP aspects of allocation plans, unless otherwise delegated.
  17. The Commission will promote regular monitoring and applied research to ensure that environmental water provisions are meeting their objectives. If this is not the case the Commission will take corrective action.
  18. The value that society places on the environment and water resources changes over time. The Commission will periodically review environmental water provisions in response to these changes. Such reviews will trigger a re-evaluation of environmental water provisions and existing water allocations

These principles provide guidance for the generic determination of EWPs. More detailed guidelines for EWPs for groundwater and surface water systems will develop from applying the principles in practice. Considerable experience is available from past groundwater management. For surface water systems further development of the management approach is required and will be based on the national principles described earlier. The current approach to identifying important components of surface water ecosystems for protection is based on the "holistic approach" of Arthington et al. (1992). The approach assumes that the natural flow regime maintains, in a dynamic manner, the shape of river channels, the in-stream biota, riparian vegetation, flood-plain and wetland systems, and any estuarine and off-shore systems affected by streamflows. If a river's natural

(unregulated) flow regime can be identified and critical elements adequately incorporated into the modified or regulated flow regime, the existing biota should persist and much of the "functional integrity" of the riverine ecosystem should be maintained (Arthington et al. 1992). Key components will usually include flows to maintain fish passage and spawning, channel shape and benthic communities.<sup>5</sup>

This approach will be applied to the progressive development of EWPs. In instances where limited information is available, "interim" allocation plans using best available approaches consistent with the level of knowledge will be made until more detailed information becomes available.

## **3.2 Implementation of the policy principles**

### **3.2.1 Water allocation planning and licensing**

These policy principles are to be applied when preparing sub-regional and management area plans. As shown in Table 1 individual licensees will be required to operate their works or manage their abstractions to meet any EWPs set down in the allocation plans. Figure 1 shows the general process undertaken when preparing allocation plans and emphasises the steps involved in the environmental water provision component of allocation planning.

Point 16 of the guiding principles states the need to provide legislative backing for allocation plans. Water allocation plans must balance society's future needs for water with an increasing desire on the part of the Government and many people in our society, to protect the environment. They must also establish means to manage the competing needs of different water users. If the proposed legislative changes to the *Rights in Water and Irrigation Act* become law (Water and Rivers Commission 1998b), allocation plans will be prepared through a process that includes thorough public review and will be approved by the Minister. They will establish local licensing requirements and priorities for the study area that will be binding on the Commission. The Commission also recognises that allocation plans should continue to be assessed under the *Environmental Protection Act*, if considered

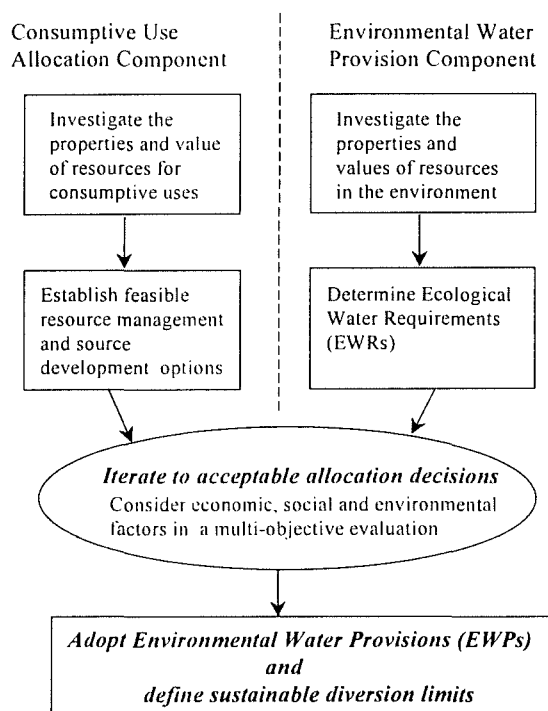
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<sup>5</sup> Groups of (usually) invertebrate species living in or on the beds of creeks or rivers.



significant by the EPA. Where the plan is to be reviewed under the *Environmental Protection Act*, a flexible but integrated public consultation process will be developed with the Department of Environmental Protection.

### Water Resource Allocation Planning



**Figure 1 - Environmental water provision planning as a component of overall water allocation planning**

### 3.2.2 Licence conditions where plans are not available

Every effort will be made to carry out water allocation planning and associated EWP decision-making well ahead of development pressures. However, it is inevitable that development proposals and applications for water abstraction licences will occur in places where allocation plans have not been prepared and where EWPs have not been determined.

Where possible the Commission will proceed by placing conditions on water use licences in these situations.

The Commission will consider local environmental impacts of proposed abstractions when licence applications are assessed. Where these impacts could have a significant effect on the environment, the Commission is obliged to refer the proposal to the EPA under the *Environmental Protection Act*.

### 3.2.3 Ongoing management and updating policy and processes

The Commission places a strong emphasis on the adaptive approach to water resource management, through feedback from research, monitoring and management. The Commission will seek to implement improved management practices in response to new knowledge and act rapidly if evidence of serious and unexpected environmental damage arises from its water allocation decisions.

The Commission also identifies significant water resources with very high (important) environmental and in-situ water values as part of its regional allocation studies. To protect these values, licence applications for consumptive use will normally be refused. Other undeveloped regional resources are recognised as having high values for future consumptive uses. Only notional allocations of water to meet EWPs have been made or proposed from these resources in previous regional studies (Western Australian Water Resources Council, 1989). The Commission intends to adapt the principles of this policy to its regional scale planning. This could involve establishing generalised criteria for the allocation of resources to in-situ values across the region. The criteria could be designed, for example, to protect the diversity of the region's significant aquatic ecosystems. The Commission will work with the EPA on the development of such regional criteria.



**Table 1: Proposed water allocation planning and licensing processes in which the environmental water provision principles are applied or implemented**

<b>Plan features</b>	<b>Sub-regional plans</b>	<b>Management area plans</b>	<b>Water use licences</b>
<b>Water resources included</b>	All the significant surface and groundwater resources of the study area.	The single groundwater or surface water resource of the management area. Interactions with adjacent resources may also be included.	The resource subject to the licence.
<b>Objectives or outputs relevant to this policy statement</b>	To assign the broad ecologically sustainable divertible volumes from all key (groundwater and surface water) resources in the sub-region.  To enable the assessment of the cumulative impacts of future source developments within the sub-region.	To determine self supply licensing policy, any scheme supply licensing, ecologically sustainable diversion volumes, and EWP constraints that relate to the resource in question.  To refine/define the rules of any market trading regimes once environmental water provisions have been defined and have them reviewed by the EPA.	Constraints on the operation of headworks, water service providers or individual water licensees that set out their obligations in ensuring that the EWPs for the resource are achieved.
<b>Responsibility for preparation</b>	Water and Rivers Commission. Note that input from any key proponent (source developer or water service provider) on technical and environmental aspects would be sought.	Water and Rivers Commission.	Water and Rivers Commission.
<b>Consultation</b>	Wide public consultation over draft(s) of the plan and review by the EPA when the potential environmental impact is deemed significant.	Wide public consultation over draft(s) of the plan, and review by the EPA when the potential environmental impact is deemed significant.	Applications may be advertised so that those potentially affected can make submissions.
<b>Approved by</b>	Minister for Water Resources, on recommendation from the Commission, with the Minister for the Environment setting any conditions in relation to the environmental aspects of the plan when the plan is formally assessed under the Environmental Protection Act.	Minister for Water Resources, on recommendation from the Commission, with the Minister for the Environment setting any conditions in relation to the environmental aspects of the plan when the plan is formally assessed under the Environmental Protection Act.	Water and Rivers Commission. <sup>6,7</sup>

<sup>6</sup> Appeals on licences can be made to the Minister for Water Resources.

<sup>7</sup> Under current proposals to update the EP Act, the EPA may carry out a strategic assessment of classes of water developments. The EPA may then either recommend conditions to be placed on Commission licences, issue an environmental permit with its conditions, or delegate the issuing of the environmental permit to the Commission.





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## 4. References

- ARMCANZ/ANZECC (1996), *National principles for the provision of water for ecosystems. A policy position paper of the Agricultural and Resource Management Council of Australia and New Zealand and the Australian and New Zealand Environment and Conservation Council*, Occasional Paper #3, Task Force on Water Reform, Commonwealth of Australia.
- Arthington, A.H., King, J.M., O’Keeffe, J.H., Bunn, S.E., Day, J.A., Pusey, B.J., Bluhdorn, D.R. and Tharme, R (1992), *Development of an holistic approach for assessing environmental flow requirements of riverine ecosystems*. In: Proceedings of an International Seminar and Workshop on Water Allocation for the Environment eds. J.J. Pigrim and B.P. Hooper, Centre for Water Policy Research, Armidale, pp. 69-76.
- Water and Rivers Commission (1997a), *Water Reform in Western Australia: Allocation and transfer of rights to use water — proposal for discussion*, Water and Rivers Commission, Water Reform Series, Report No. WRS 1, pp. 20.
- Water and Rivers Commission (1998a), *Proposed Harvey Basin surface water allocation plan*. Water and Rivers Commission, Water Resources Allocation and Planning Series, WRAP 14, March, 1998, pp. 103.
- Water and Rivers Commission (1998b), *Water law reform: guide to legislative change*. Water and Rivers Commission, Water Reform Series, Report No. WR 9, pp. 60.
- Welker (1998), *A review of environmental water provisions policy and processes in Western Australia*. Prepared for the Water and Rivers Commission by Welker Environmental Consultancy, March 1998.
- Western Australian Water Resources Council (1989), *Water for the 21st Century: long term supply options for southern Western Australia. Volume #2: Appendices*, Report No. WP 52. Water Authority of WA, pp. 60.