



Government of **Western Australia**  
Department of **Water**

# UpperCollie

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water allocation plan

Statement of response

*Looking after all our water needs*

August 2009

**Department of Water**

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## Statement of Response – Upper Collie water allocation plan

This statement is the Department of Water's response to the comments received on the *Upper Collie water management plan: draft for public comment*.

### Summary

The draft plan was open for a three month public comment period. During the comment period (December 2007–March 2008) the Department of Water sent out over 60 copies of the plan to stakeholders, as well as emails to over 115 people. An invitation to comment was also advertised weekly in the Collie Mail, South West Times and West Australian newspapers during this period.

We held ten workshop sessions with various stakeholder groups, including the local community, Collie shire, mining and industry groups, and the Ngalang Boodja council.

We received 21 submissions during the comment period. We considered all of the comments from the submissions in finalising the *Upper Collie water allocation plan*. This statement summarises our responses to those submissions.

### Interest groupings of respondents to the draft plan

Interest group	Number of submissions
Agriculture and irrigation	1
Conservation, culture and environment	3
Industry and mining	8
Local government	1
Individuals	4
Other state government	3
Public water supply	1
<b>Total</b>	<b>21</b>

A list of the respondents and their associated interest group is given at the end of this report (Table 16). It is important to note that respondents representing a specific interest group may also have commented on other areas of interest.

## ***Comments we received and the department's responses***

The following tables summarise the main issues raised in the comments and questions submitted and how we have responded to them. The comments have been grouped by the type of water related issue raised by the submissions.

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**Table 1 General comments received on the draft plan**

Comment	Department of Water response
<p><b>Support for the plan</b> Four respondents expressed their support for the plan. Generally the plan was recognised as a positive step for the Upper Collie, with respondents highlighting that water planning in the Collie Coal Basin is a complex task and that the plan will set a consistent framework for water use while protecting the natural environment.</p>	<p>We value the support that stakeholders have expressed for the plan.</p>
<p><b>Implications from the plan</b> Two mining and industry respondents stated that the plan will have an impact on industry in the area, in particular the mining and power generation industries.</p>	<p>We recognise that the Upper Collie water allocation plan may affect certain companies' practices. However, we see water allocation planning as an essential means of increased accountability for water users, as well as transparent and equitable decision-making. Planning ensures that:</p> <ul style="list-style-type: none"> <li>• water resources are not over-abstracted,</li> <li>• users have access to supply in the long term</li> <li>• the environment is not unduly harmed.</li> </ul>
<p><b>Plan structure</b> Four respondents commented on the structure of the plan, including its consistency with other plans and the link between objectives and assessment tools.</p>	<p>We have modified our plan structure to ensure a consistent approach with recently released allocation plans. Section 2.8 – Evaluating the plan has been changed to refine the objectives and performance indicators by which the plan will be evaluated over time.</p>
<p><b>Non-allocation related issues</b> One respondent raised the concern that the plan did not cover issues including:</p> <ul style="list-style-type: none"> <li>• logging of forests</li> <li>• fire</li> <li>• phytophthora management.</li> </ul>	<p>We acknowledge that these are issues within the Upper Collie area; however we are unable to address or manage these issues in an allocation plan. We have forwarded these concerns to the Department of Environment and Conservation.</p>

Comment	Department of Water response
<p><b>Further information</b> Five respondents made requests for further information on:</p> <ul style="list-style-type: none"> <li>i) the proposed water utility</li> <li>ii) recreation on Wellington Reservoir</li> <li>iii) an additional draft comment period</li> <li>iv) Wilga Basin.</li> </ul>	<p>We recognise that more information is needed on these topics. However, to maintain the focus of allocation planning information may be released separately to the allocation plan. The following addresses the issues raised by each submission:</p> <ul style="list-style-type: none"> <li>i) Further information has been provided on the proposed water utility in Section 1.12 – A Collie water utility.</li> <li>ii) Our response to comments on managing the Wellington Reservoir is detailed in Table 3 below.</li> <li>iii) We provided a public comment period (3 months) longer than our legislative requirements under the <i>Rights in Water and Irrigation Act 1914</i> (2 months). This extended comment period is not normally standard procedure but we have allowed for more time because of the importance of managing the Upper Collie and gaining input from the public on its management. You will have further opportunities to comment on allocation planning in the Upper Collie during the planning phase of the next allocation plan.</li> <li>iv) The Wilga Basin is not included in the proclaimed Collie groundwater area and is therefore not included in the plan area. If a proposal to abstract from this water resource is received by the department, we will review the need for a planning process (including proclamation).</li> </ul>

**Table 2 Comments on water demand**

Comment	Department of Water response
<p><b>Current demand</b> Three respondents from mining and industry and one state government department discussed current water demand. Respondents:</p> <ul style="list-style-type: none"> <li>i) expressed concern that the department has not made further fresh water available for allocation</li> <li>ii) stated that abundant, fresh dewatering discharge will be available well into the</li> </ul>	<ul style="list-style-type: none"> <li>i) Water is a finite resource. To ensure that current users have security of supply and the environment is not unduly impacted, we have made a science-based decision as to how much water can be abstracted from each resource.</li> <li>ii) We recognise that while dewatering takes place for safe mining practices there will be some surplus dewater</li> </ul>



Comment	Department of Water response
<p>future</p> <p>iii) highlighted the need to ensure water users are using their allocation for the purposes it was allocated.</p>	<p>available for use. There is no evidence at this point that there will be an abundance of surplus dewater in the future. We have updated the plan to include further information on mine dewater and its use in Section 1.11 – Mine dewater use and availability.</p> <p>iii) We agree that monitoring water users is an important part of good water management (see policies in Section 2.5 of the plan). We will ensure water use is in line with licence arrangements and will carry out on site inspections of large water users.</p>
<p><b>Future industrial use</b></p> <p>Nine respondents discussed future industrial use. Respondents raised:</p> <p>i) issues on future demand including:</p> <ul style="list-style-type: none"> <li>• expansion of power generation, or other industries</li> <li>• the requirement for more water than what is available in the plan</li> <li>• the requirement for that water by industries to replace coal mining once it ceases</li> </ul> <p>ii) the need for the department to consider future use scenarios in water resource planning</p> <p>iii) the potential for additional use of currently marginal resources.</p>	<p>i) Under this plan most of the water resources are fully allocated. All fresh surface water and groundwater resources are fully allocated. In the future additional water demand may be met through opportunistic and agreed use of surplus mine dewater and through the use of Wellington Reservoir. As water resources are a finite resource and becoming scarcer and less reliable the department encourages use of available technologies to reduce or remove the need for water, particularly high quality water, in industrial processing or cooling operations.</p> <p>ii) This plan provides for the use of current water resources and their current quality. It is the base case scenario. We will continue to investigate other allocation scenarios and ways of optimising the use of water resources in the future through salinity recovery.</p> <p>iii) There is scope for water users in the Upper Collie area to use water of marginal quality.</p>
<p><b>Security of supply</b></p> <p>i) Three respondents raised the issue that industry requires high security of supply. There was support for the way that the plan recognises this issue.</p> <p>ii) One respondent raised the issue that different levels of security apply to different users and that the plan requires more detail in this area.</p>	<p>i) The department recognises that security of supply for industrial uses is of paramount importance. Hence, the setting of robust allocation limits and the plan position that surplus mine dewater should not be relied upon and that contingency sources will be required. Security of supply must be achieved through a diversity of sources.</p> <p>ii) The plan has been updated to include our position on the priority of surplus</p>

Comment	Department of Water response
	mine dewater under each of the mining companies' state agreements. Please refer to Section 1.11 – Mine dewater use and availability. The reliability of the surface water resources is provided in Table 4 – Summary of surface water allocation limit assessment.
<p><b>Fit-for-purpose use</b></p> <p>Three respondents raised the issue of how the department considers fit-for-purpose use. One was in support of the department's position that public water supply is highest value use, while others raised the concerns that industrial use of water may be seen as second order to public water supply.</p>	<p>Our position on fit-for-purpose use is the same as the position stated in the <i>State Water Plan</i> (Department of Premier and Cabinet 2007). This position is that water use is matched with an appropriate water quality.</p>
<p><b>Inter-regional transfer</b></p> <p>Respondents from public water supply, local government and mining and industry groups raised the issue of the potential for an inter-regional transfer of water from the Upper Collie. Comments focused on:</p> <ul style="list-style-type: none"> <li>• economic inefficiency of exporting water out of the region then needing to import it back in</li> <li>• support for the position that regional demand must be met before water is exported</li> <li>• needing to assess options for water supply and select the most sustainable option.</li> </ul>	<p>In the Upper Collie area inter-regional transfers of water already exist, including water going from Harris Reservoir into the Great Southern Towns Water Supply Scheme. Our position on inter-regional transfers of water in the Upper Collie area is outlined in Section 2.5 – Allocation policies.</p>
<p><b>Tree plantations</b></p> <p>Four respondents discussed the issue of tree plantations. Issues raised included:</p> <ol style="list-style-type: none"> <li>i) benefits to reducing saline inflows</li> <li>ii) impacts of tree plantations on water production.</li> </ol>	<ol style="list-style-type: none"> <li>i) We recognise that since the Upper Collie catchment has become affected by salinity there is a benefit in planting trees in certain areas of the catchment to reduce saline inflows to the river.</li> <li>ii) We acknowledge that tree plantations can intercept and reduce the amount of surface and groundwater available in the area. We have factored land-use change within the catchment into our surface water modelling which supports the decisions made on limits for allocating water.</li> </ol>

**Table 3 Comments on managing Wellington Reservoir**

Comment	Department of Water response
<p><b>Use of Wellington Reservoir</b></p> <p>The use of Wellington Reservoir was a topical issue with many comments from 12 respondents.</p> <p>A broad range of issues were covered including:</p> <p>i) Strong support for the reserved water in the Wellington Reservoir to be:</p> <ul style="list-style-type: none"> <li>• retained for industrial, irrigation and recreational purposes</li> <li>• reserved for security, climate change and industrial use</li> <li>• used as an alternative water source for industry to relieve the pressure on groundwater</li> <li>• greater than the current 5 GL identified in the plan as accessible for industrial purposes.</li> </ul> <p>ii) Poorer quality of water in the Wellington Reservoir has reduced ability to recycle in process leading to higher demand.</p> <p>iii) The department should recognise the health and treatment issues associated with body contact on a public water supply source.</p> <p>iv) The department must consider the need to harvest overflows from the reservoir.</p> <p>v) Water quality issues from acidic groundwater and heavy metals in the area are of concern to the community.</p>	<p>i) In response to an immediate increase in industry water demand and the submissions received on the draft plan we have updated our position (Section 2.3) on the allocation of water from the Wellington Reservoir. The plan no longer reserves 12 GL/yr from the Wellington Reservoir for public water supply. The department encourages industry to utilise this resource as a fit-for-purpose resource. The use of Wellington Reservoir for public water supply may be considered in the future if there is water available.</p> <p>ii) We recognise that treatment is required for power generators to use poorer quality water from Wellington Reservoir. However, given the high demand for water and low availability, we expect that all power generators in the area will consider a range of options, including water from the Wellington Reservoir.</p> <p>iii) We protect public water sources under our drinking water source protection planning and proclamation process. For more information see water quality in public water supply areas go to <a href="http://www.water.wa.gov.au/">www.water.wa.gov.au/</a> &gt; Waterways health &gt; Drinking water.</p> <p>iv) Water treatment is managed by the Water Corporation in line with its assessments of risks and impacts on its water resources.</p> <p>v) We consider occasional reservoir overflows critical to providing important flows to support the environment in a heavily modified river system. Reservoir overflows are not wasted but are an important component of the Collie River system.</p> <p>vi) We recognise that there is a risk of acidic groundwater and heavy metals impacting on the water quality of the Wellington Reservoir. The plan details policies for water users to identify these potential impacts and to monitor and manage accordingly. See Section 2.5 in the plan for relevant policies.</p>

Comment	Department of Water response
<p><b>Drinking water source protection and recreation</b></p> <p>Five respondents raised the issue of water source protection in and around the Wellington Reservoir.</p> <p>Respondents raised the issues of:</p> <ul style="list-style-type: none"> <li>• lack of water source protection policy and detail in the plan</li> <li>• need for high level of catchment protection for public water supply sources</li> <li>• high social value of recreation on the reservoir</li> <li>• issue of other potential contaminants in the area.</li> </ul>	<p>These issues are not within the scope of the Upper Collie allocation plan and are managed through the drinking water source protection process.</p> <p>The department will complete a source protection plan for the Wellington Reservoir if and when there is demand for the reservoir to be used as a public drinking water source and if water is available in the future.</p>
<p><b>Unused allocation</b></p> <p>Two respondents discussed the department's position that unused water entitlements in the plan area will be recouped.</p> <p>One respondent endorsed the policy whereas the other stated that the department would need to consider why there was an unused portion of an allocation before it was recouped.</p>	<p>Recouping unused allocations is an important part of ensuring that water use is optimised and that all potential water users have access to supply. This is especially important in the Upper Collie given that water is close to fully allocated.</p> <p>The department manages according to <i>Statewide policy no. 11 – Management of unused water licence entitlements</i> (Water and Rivers Commission 2003) when recouping unused entitlements. Any recoup of unused allocations will take place in line with this policy.</p>
<p><b>Questions</b></p> <p>1. What are the 'current approved levels' of recreation around Wellington?</p>	<p>Current approved levels of recreation are outlined in the <i>Wellington National Park, Westralia Conservation Park and Wellington discovery forest: management plan</i> (Department of Environment and Conservation and the Conservation Commission of Western Australia 2008)</p>

**Table 4 Comments on managing Harris Reservoir**

Comment	Department of Water response
<p>Four respondents commented on the use of Harris Reservoir. Comments included:</p> <ul style="list-style-type: none"> <li>• support for the salinity mitigation release</li> <li>• opposition to the salinity mitigation release</li> <li>• opposition to using Harris only for</li> </ul>	<p>The current salinity mitigation release conditions formed part of the initial ministerial conditions when the Harris Reservoir was developed. We anticipate that given the success and likely continuation of the salinity recovery project the need for salinity releases from Harris</p>

Comment	Department of Water response
public water supply.	Reservoir is less likely. Harris Reservoir is currently fully allocated to the Water Corporation. The department supports large water users purchasing water from the Water Corporation if there is a demand and Water Corporation is able to supply the water.

**Table 5 Comments on managing groundwater of the Collie Coal Basin**

Comment	Department of Water response
<p><b>Groundwater allocations</b></p> <p>Three respondents commented on the groundwater allocations in the Upper Collie plan, covering:</p> <ul style="list-style-type: none"> <li>• support for restoring groundwater levels</li> <li>• support for groundwater to go to public water supply</li> <li>• the need for mining licences (dewatering groundwater allocations) to be transparent.</li> </ul>	<p>We note that stakeholders support the groundwater recovery strategy and agree that high value groundwater should be made available for public water supply.</p> <p>At this time there is no formal proposal for groundwater from Collie to be used for public water supply but it may be considered in the future if there is enough surplus dewater in addition to existing user requirements.</p> <p>We agree that the assessment process for issuing and renewing licences for mine dewater must be transparent.</p>
<p><b>Cardiff groundwater recovery</b></p> <p>Two respondents (both from mining and industry) requested more information on how the limits will be reduced and highlighted the need to work with stakeholders to ensure that the method of reduction is suitable.</p> <p>One respondent mentioned that recovery of groundwater may have been accelerated by river supplementation over the past 10 years.</p>	<p>The department has updated the actions in the plan to specify that licences in the Cardiff subarea will be reviewed and amended in line with the recovery (see Section 2.7 – Implementing the plan)</p> <p>We accept that river supplementation may have recharged groundwater levels to some extent in areas close to where supplementation occurs.</p>

Comment	Department of Water response
<p><b>The Collie Water Advisory Group (CWAG) management initiative</b></p> <p>Two respondents (one mining and industry, one individual) made reference to the previous CWAG initiative. Respondents raised the issues of:</p> <ul style="list-style-type: none"> <li>i) how CWAG relates to the department plan</li> <li>ii) the effort in community consultation through the CWAG process.</li> </ul>	<ul style="list-style-type: none"> <li>i) This plan supersedes previous water allocation principles established in the by the Collie Water Advisory Group 1996 and 1999 (Department of Resource Development 1996 and 1999). The plan builds on and supports the CWAG principles with a new emphasise on accountability for water use and recognition that surplus mine dewater is not a secure source.</li> <li>ii) We recognise that the CWAG initiative (from the Department of Resources Development 1996) included a comprehensive consultation process.</li> </ul>
<p><b>Questions</b></p> <p>1. Do the allocation limits set for groundwater mean that the department will not approve further dewatering for safe mining practices?</p>	<p>No, the department has no jurisdiction to restrict dewatering of mines. The amount of water that is abstracted for safe mining purposes is determined by dewatering designs required under state agreement Acts. The department requires strict monitoring of dewatering bores and seeks to ensure that dewatering is only to facilitate safe mining conditions.</p>
<p>2. Why has the department put dewatering allocations outside the annual allocation limit?</p>	<p>We have considered dewatering allocations separately to permanent consumptive use to improve how we account for water in the Upper Collie. This will ensure that the allocation limits we set reflect groundwater recharge and availability, rather than the abnormally high volumes required for mine dewatering.</p>
<p>3. Has the department considered the utilisation of water contained in old underground mine workings? If not, why has the department not considered this an appropriate source of water?</p>	<p>Water within old underground mine workings contributes to groundwater recovery. As the department's key management objective for post-mining areas is to recover groundwater levels, we will not permit any further groundwater abstractions.</p>

**Table 6 Comments on coal mining and dewatering**

Comment	Department of Water response
<p><b>Coal mining</b></p> <p>Six respondents discussed coal mining, covering the:</p> <ul style="list-style-type: none"> <li>i) likelihood of mining continuing well into the future</li> </ul>	<ul style="list-style-type: none"> <li>i) We recognise that if demand for coal continues mining will continue well into the future and there may be surplus dewater available for use.</li> <li>ii) We have considered the scenario that all</li> </ul>

Comment	Department of Water response
<p>ii) need to consider the scenario that all coal will be mined</p> <p>iii) contribution of coal mining to greenhouse gas emissions.</p>	<p>coal will be mined. if coal mining activity reduces or the required water levels for safe mining practices are achieved (through dewatering) then dewatering activities will reduce or cease. Because of this, we do not see dewatering discharge as a reliable, secure supply for industries.</p> <p>iii) Addressing the contribution of coal mining to greenhouse gas emissions is not within the scope of this water allocation plan.</p>
<p><b>End use of dewatering discharge</b></p> <p>Twelve respondents, including six from the mining and industry interest group, commented on the end use of dewater, including:</p> <p>i) the need for dewatering discharge to meet power and industrial supply</p> <p>ii) not supporting the Upper Collie plan policy that companies may not sell or trade dewatering discharge.</p>	<p>i) We recognise that while dewatering takes place for safe mining practices there will be some surplus dewater available for use. We have updated the plan to include further information on mine dewater and its use in Section 1.11 – Mine dewater use and availability.</p> <p>ii) In line with what is permitted under the mining companies' current state agreements we do not permit the sale or trade of surplus mine dewater (see policies in Section 2.5).</p>
<p><b>State agreements</b></p> <p>Five respondents commented on State agreements.</p> <p>i) Two queried the necessity of a review, highlighting the importance of the agreements to ensure coal mining takes place into the future.</p> <p>ii) One respondent supported the move to review water management principles within the state agreements.</p>	<p>i) In the best interest of current and future water users' water security the department recommends a review of the mining state agreements to reflect the current demand and supply context and facilitate the provision of dewater to non-state third parties. The plan has been updated to include further information on the state agreements and how they relate to the priority of dewater re-allocation in Section 1.11 – Mine dewater use and availability.</p>

**Table 7 Comments on proposed Collie water utility**

Comment	Department of Water response
<p>Ten respondents commented on the proposed Collie water utility. Comments included:</p> <ul style="list-style-type: none"> <li>requesting further information (including price and supply arrangements)</li> <li>honouring existing agreements</li> </ul>	<p>We have provided more information within the allocation plan on the proposed water utility in Section 1.12 – A Collie water utility.</p> <p>If the utility is not feasible, proponents will be able to access water through the standard licensing process.</p>

Comment	Department of Water response
<ul style="list-style-type: none"> <li>• support for the utility</li> <li>• linkages between the plan and the utility</li> <li>• concern that large users will purchase water from the utility rather than obtain it without charge</li> <li>• unclear need for the utility.</li> </ul>	
<p><b>Questions</b></p> <p>1. What alternative arrangements are available to water users if the water utility concept is not successful?</p>	<p>If a utility is not set up, proponents will be able to access water through the standard licensing process.</p>

**Table 8 Comments on managing water quality**

Comment	Department of Water response
<p><b>Water quality (discharge and run-off)</b></p> <p>Three respondents commented on water quality in terms of:</p> <p>i) the lack of information on water quality</p> <p>ii) the linkage between quality of water and disposal requirements.</p>	<p>i) The quality of the water resources are described in Part 1 of the allocation plan.</p> <p>ii) The <i>Rights in Water and Irrigation Act 1914</i>, through the licensing process, enables the department to regulate abstraction and disposal volumes, and to a certain extent the quality of water disposed. Other legislation, such as the <i>Environmental Protection Act 1986</i> or a where water quality is part of a state agreement Act it may also regulate the volume and quality of water discharged. In the case of Upper Collie the department manages the take, use and disposal of dewatering water, whereas the Department of Environmental and Conservation is responsible for regulating the discharge of mine site, storm and process water.</p>



Comment	Department of Water response
<p><b>Salinity recovery project</b></p> <p>Eight respondents mentioned the salinity recovery project in the Upper Collie. Comments included:</p> <ul style="list-style-type: none"> <li>i) support for the project and its combination of environmental and engineering solutions</li> <li>ii) opposition to the project based on the risk of storing saline water over groundwater</li> <li>iii) opposition to the project based on the impact of diversion on water yields.</li> </ul>	<ul style="list-style-type: none"> <li>i) We note that a number of stakeholders are in support of the salinity recovery project. At this stage the pilot project is still being implemented and we are investigating further stages where the longer term diversion infrastructure will be constructed. The salinity recovery project is currently on track to meeting its potable water quality target by 2015.</li> <li>ii) We recognise that there are a number of risks associated with the salinity recovery project. We are undertaking a comprehensive monitoring program to assess any changes to water quality in the vicinity of the storage sites.</li> <li>iii) The full 14 GL diversion discussed in the <i>Water source options in the Collie Wellington Basin: ministerial report</i> (Collie – Wellington Basin Water Source Options Steering Committee 2007), has been factored into the allocation limit of the Wellington Reservoir. Therefore 85.1 GL/yr can be allocated from the reservoir while diverting 14 GL/yr from the Collie River East Branch.</li> </ul>

**Table 9 Comments on managing the environment**

Comment	Department of Water response
<p><b>Environmental policy</b></p> <p>Six respondents commented on the approach to managing the environment. Comments included:</p> <ul style="list-style-type: none"> <li>• challenging the need for stakeholders to identify water-dependent values</li> <li>• the requirement for companies to identify and mitigate impacts of use (and associated costs)</li> <li>• environmental releases from reservoirs.</li> </ul>	<p>Companies are responsible for their water use. This means they need to identify where they may have an impact and set out a strategy for how the impact will be appropriately managed. This is one of the main principles of the Upper Collie water allocation plan.</p> <p>We acknowledge that we need to review the current environmental release regimes from the major reservoirs and we have committed to review them by the last quarter of 2009. This includes considering how they may change in a drying climate.</p>
<p><b>Ecological assumptions</b></p> <p>Three respondents commented on the department's ecological assumptions in the allocation limits and the plan.</p> <ul style="list-style-type: none"> <li>i) One respondent queried statements in the plan regarding identified ecological</li> </ul>	<ul style="list-style-type: none"> <li>i) We acknowledge comments relating to the quality of the Bingham River and value of other ecological sites and we have changed relevant text within the plan.</li> <li>ii) The department has carefully</li> </ul>

Comment	Department of Water response
<p>sites, particularly relating to the Bingham River.</p> <p>ii) Another respondent stated that the plan does not integrate with the principles of ecologically sustainable development and it is not clear how ecological water requirements were considered in setting allocation limits.</p>	<p>considered the principles of sustainable development in setting the water resource allocation limits as well as developing the policies for water use and management. Detail on how allocation limits were set is provided in <i>Upper Collie surface and groundwater allocation limits: methods and calculations</i> (Department of Water 2008), which is available on our website.</p>
<p><b>Pool supplementation</b></p> <p>Three stakeholders raised the issue of the pool supplementation program on the Collie River. Respondents discussed:</p> <p>i) the need for shared responsibilities (including the option of a third party managing the program)</p> <p>ii) a defined criteria for when the supplementation program would end</p> <p>iii) the issues associated with a long-term program</p> <p>iv) that the plan placed unrealistic expectations on industry associated with mine dewatering.</p>	<p>i) We consider that a good supplementation program assigns responsibility to those who have had, or will have, an impact on the river.</p> <p>ii) Our view is that where there is a pool supplementation program it will cease once the river has recovered to pre-mining levels or to a steady state. This should ensure that the river is not maintained at an unnatural level in the long term.</p> <p>iii) We recognise that there are issues associated with implementing the pool supplementation program. However, we maintain that it is an important part of mitigating the impacts of large scale abstraction within the Collie Coal Basin.</p> <p>iv) We consider the Collie River pool supplementation program to be an important part of mining companies managing the impacts of their water use. The requirements for dewatering management in the Upper Collie plan are in line with mining water management in other areas of Western Australia.</p>
<p><b>River health</b></p> <p>Two respondents (each local individuals) discussed the health of the Collie River with respect to the plan. Respondents commented on:</p> <ul style="list-style-type: none"> <li>• the need for rivers to be fenced from livestock</li> <li>• that the river has been degraded over time</li> <li>• silting is a major issue</li> <li>• the need for best management</li> </ul>	<p>The first four points are outside the scope of this allocation plan. This year, we are due to complete the Collie River Action Plan which will provide a number of strategies to improve the health of the river</p> <p>In response to the last point we encourage the re-use of surplus mine dewater and understand that sometimes supply is in excess of demand and therefore some must be released to the environment.</p> <p>To manage this, the Upper Collie plan includes a range of policies on managing</p>

Comment	Department of Water response
<p>practice sessions for farmers</p> <ul style="list-style-type: none"> <li>that rivers must not act as drains for dewatering discharge.</li> </ul>	<p>the release of dewater along the river, in line with its <i>Rights in Water and Irrigation Act 1914</i> jurisdiction.</p>
<p><b>Aboriginal heritage</b> One respondent (other state government) commented on Aboriginal heritage in the Upper Collie area. Comments included:</p> <ul style="list-style-type: none"> <li>i) the need for comprehensive assessment of cultural heritage values</li> <li>ii) registered Aboriginal heritage sites within the area</li> <li>iii) the need to observe cultural protocols at a local level.</li> </ul>	<ul style="list-style-type: none"> <li>i) Last year we identified the need for further work on cultural heritage in the Upper Collie area. We have since commissioned studies through the Australian Government Water Smart Australia fund. This work will be completed by mid 2009 and available on our website.</li> <li>ii) We recognise that there are a number of registered sites within the area. We consider these sites in our licensing process. This is a standard requirement under Schedule 1, Division 2, section 7(2) of the <i>Rights in Water and Irrigation Act 1914</i>.</li> <li>iii) We recognise that there are important cultural protocols and we work closely with the relevant representatives for country in the area.</li> </ul>
<p><b>Questions</b></p> <ol style="list-style-type: none"> <li>How has the department considered the differences between areas and subareas in its management strategy?</li> </ol>	<p>We have carefully considered the varied water flows, quality, ecology, and water usage in setting each of our allocation limits. The department is committed to transparency in its decision-making. The document <i>Upper Collie surface and groundwater limits: methods and calculations</i> (Department of Water 2008) details how ecological water requirements were considered in each water management subarea. This document along with each ecological water requirement study is also published on our website. Go to &lt;<a href="http://www.water.wa.gov.au/">www.water.wa.gov.au/</a>&gt; Managing our water &gt; water planning &gt; allocation planning &gt; Upper Collie surface and groundwater.</p>

**Table 10 Comments on climate change**

Comment	Department of Water response
<p><b>Reduced rainfall and available water</b> Six respondents from across all interest groups commented on the drying climate and reduced rainfall. Comments included:</p> <ul style="list-style-type: none"> <li>i) the need for precautionary low</li> </ul>	<ul style="list-style-type: none"> <li>i) The department has set precautionary low allocation limits for surface water (besides the Harris Reservoir). For groundwater allocation, limits have also been set to ensure groundwater levels in the basin can recover post mining</li> </ul>

Comment	Department of Water response
<p>allocation limits and worst case scenario analysis</p> <p>ii) that a 10% recharge reduction is insufficient</p> <p>iii) that the plan must include how climate risk will be assigned.</p>	<p>activity.</p> <p>ii) We selected a 10% reduction in rainfall recharge to reflect the reduced rainfall between 1999 (when the model rainfall data ends) to 2007. See <i>Upper Collie surface and groundwater allocation limits: methods and calculations</i> (Department of Water 2008) for more information.</p> <p>iii) Future planning activities in the Upper Collie area will take into consideration how climate risk will be assigned.</p>
<p><b>Period of data used</b></p> <p>Five respondents queried the department's use of 1975–1999 data for groundwater modelling and 1975–2003 data for surface water modelling.</p> <p>Respondents discussed:</p> <p>i) why different periods were used for surface and groundwater</p> <p>ii) the need for a shorter assessment period that reflects drying climate</p> <p>iii) the risk that allocation limits may be too high given reduced rainfall and a drying climate</p> <p>iv) the need for future rainfall reductions to be considered in availability assessments.</p>	<p>i) The dates used in developing the allocation limits are different because the Upper Collie ground and surface water models are based on our available data at the time each model was developed.</p> <p>ii) Planning is about looking at resource trends over time and managing them accordingly. While we accept that water users may use shorter periods of time in their assessments to manage security of supply, we need to assess at least a 25-year period to understand water resource trends and changes.</p> <p>iii) We recognise that the periods of data used may not reflect the current water availability situation, as recent data to 2008 was not included in the models at that stage. For many of our resources we have set precautionary allocation limits. For the major reservoirs allocation limits will be reviewed in the future.</p> <p>iv) In future planning we will take into account the effects of climate change. As this is an issue across the whole of the South West please see <i>South West regional water plan: draft for public comment</i> (Department of Water 2008).</p> <p>v) We are now working on improving and refining our surface and groundwater modelling with over \$700 000 of funding from the Australian Government Water Smart Australia program.</p>
<p><b>Climate change and the environment</b></p> <p>i) One respondent discussed the ecological principles behind climate</p>	<p>i) We recognise that climate change has an impact on the environment. However, how it affects plant growth is</p>

Comment	Department of Water response
<p>change, including the effect of climate change on forests and tree growth.</p> <p>ii) Another raised the issue of ecological water releases from reservoirs in the context of the plan. The plan has a static volume whereas naturally it would reduce over time with drying climate conditions.</p>	<p>outside the scope of this plan.</p> <p>ii) As we have described in Table 9 above we will be reviewing the current environmental release regimes from the major reservoirs. This includes considering how they may change in a drying climate.</p>

**Table 11 Comments on water licensing and compliance**

Comment	Department of Water response
<p><b>Licensing</b></p> <p>Six respondents raised the plan's licensing strategy, including:</p> <p>i) requests for clarity on which water users certain policy would apply to</p> <p>ii) challenging the department's standard for a 10-year licence tenure</p> <p>iii) the need to ensure that all licences in the Upper Collie over 0.05 GL/yr meet the national standard for metering.</p>	<p>i) We have changed the wording in the plan to improve clarity.</p> <p>ii) The 10-year licence tenure is a departmental standard which will not be changed at this stage, except if there are risks associated with the licence that must be managed under shorter licence tenure.</p> <p>iii) We have updated our policy requirement for metering in the plan for all licenses 0.05 GL/yr and above.</p>
<p><b>Farm dams</b></p> <p>Three respondents queried the department's approach to managing and licensing farm dams. Queries raised include:</p> <p>i) the policy to ban on-stream dams</p> <p>ii) period of take rule.</p>	<p>i) We have updated our policy position on on-stream farm dams. We prefer off-stream storages to on-stream storages, but we recognise that this may not always be possible. New dam proposals will be assessed on a case-by-case basis.</p> <p>ii) Applying a period of take ensures that water is abstracted from the system when it is available, in line with a system that has winter rainfall.</p>
<p><b>Source development planning</b></p> <p>Two respondents (public water supply and mining) raised the source development plan policy.</p> <p>Both respondents requested clarity on this policy, in that:</p> <ul style="list-style-type: none"> <li>the format and content of the plan would need to be specified</li> <li>what triggers would apply to develop sources</li> <li>how future sources would be set aside for industry.</li> </ul>	<p>Source development plans must be completed by all water users within an entitlement &gt; 1 GL/yr and submitted to the department. Supply options should be identified.</p> <p>Part of the source development plans will be how security of supply will be achieved, including water efficiencies and strategies to meet short and long-term supply options.</p> <p>We expect applicants to establish and apply their own triggers for developing alternative sources.</p> <p>There are currently no large sources of</p>

Comment	Department of Water response
	water available to set aside for future demand for specific industries in the Upper Collie area. Industry will need to secure its water supply from a combination of sources.

**Table 12 Comments on water use efficiency**

Comment	Department of Water response
<p>Five respondents raised water efficiency issues, covering:</p> <ul style="list-style-type: none"> <li>i) company achievements to date in water efficiency</li> <li>ii) the objective that all major users will achieve 20% efficiency gains by 2011</li> <li>iii) the need to provide guidance on how efficiency gains can be made.</li> </ul>	<ul style="list-style-type: none"> <li>i) We recognise that certain water users in the Upper Collie have implemented water efficiency measures.</li> <li>ii) We agree that the efficiency objective did not reflect the varying degree to which large water users in the area have adopted efficiency measures. We have updated this in the plan.</li> <li>iii) Guidance on how we manage water efficiency can be found in our recently released <i>Statewide policy no. 16 – Water conservation and efficiency plans</i>.</li> </ul>

**Table 13 Comments on water trading**

Comment	Department of Water response
<p>Four respondents raised the issue of water trading. Comments included:</p> <ul style="list-style-type: none"> <li>• that trading is not in the best interest of the public or the environment</li> <li>• the need for further clarity on trading</li> <li>• queries on why dewatering discharge cannot be traded.</li> </ul>	<p>Trading in the Upper Collie will take place in line with departmental <i>Statewide policy no. 6 – Transferable (tradeable) water entitlements for Western Australia</i>. For more information on trading please see our previous response above on <i>Coal mining and dewatering</i> (Table 6).</p>

**Table 14 Comments on water reform**

Comment	Department of Water response
<p>Two respondents raised water reform and the proposed new water resource legislation. Comments included:</p> <ul style="list-style-type: none"> <li>• how the statutory water management plans will fit with operating strategies</li> <li>• how licence tenures will change with</li> </ul>	<p>Water allocation plans will guide decisions on allocating water (including licensing and licence conditions). Operating strategies are currently, and will continue to be, conditions under a licence to take water, and as such cannot be inconsistent with a water allocation plan.</p> <p>Licence tenure changes and jurisdictional</p>

Comment	Department of Water response
<p>permanent access entitlements</p> <ul style="list-style-type: none"> <li>that the new legislation will need to resolve conflicts of jurisdiction between current agencies</li> <li>the importance of ensuring new legislation does not alter security to current users.</li> </ul>	<p>conflicts will be addressed in the next phase of planning following completion of the proposed Water Resources Bill.</p> <p>The Bill will not change the security of a water user's entitlements. Decisions around the security and reliability of entitlements will be made through the allocation planning process with significant public consultation. State agreement Acts will continue to be recognised.</p>

**Table 15 Comments on water pricing**

Comment	Department of Water response
<p>Three respondents commented on water pricing, stating that:</p> <ul style="list-style-type: none"> <li>industry and agriculture must pay a fair share for their water and contribute to research and rehabilitation</li> <li>the sale of water between parties is regulated by the Economic Regulation Authority and needs to reflect the cost of supply</li> <li>funds from the sale of water ought to be diverted to river restoration.</li> </ul>	<p>The Economic Regulation Authority (ERA) is conducting an inquiry into the department's water resource management and planning charges. Depending on the outcome of the ERA inquiry, water users may be required to pay for their water usage.</p> <p>In addition to this, the federal government is developing national principles for the recovery of water resource planning and management costs. Once these principles have been released, we will consider how to best implement them in Western Australia.</p>

### ***List of respondents***

**Table 16 List of respondents**

Interest group	Respondents
<b>Agriculture and irrigation</b>	Harvey Water Trees South West (Plantation development committee)
<b>Conservation and environment</b>	Conservation Council Leschenault Catchment Council South West Fire
<b>Individual</b>	Four individuals
<b>Local government</b>	Mick Murray Shire of Collie South West Development Commission
<b>Mining and industry</b>	Bunbury/Wellington Economic Alliance

	Collie Chamber of Commerce Chamber of Minerals and Energy Griffin Group Verve Energy Wesfarmers Premier Coal Worsley Alumina
<b>Other state government</b>	Department of Agriculture and Food Department of Indigenous Affairs
<b>Public water supply</b>	Water Corporation

### ***Where to next?***

We carefully considered each comment and response in finalising the *Upper Collie water allocation plan*. The final plan will come into force following endorsement by the Minister for Water.

The plan and its supporting documents are available from the department's website Go to <[www.water.wa.gov.au/](http://www.water.wa.gov.au/)> Managing our water > water planning > allocation planning > Upper Collie surface and groundwater.

For further information please email <[allocation.planning@water.wa.gov.au](mailto:allocation.planning@water.wa.gov.au)> or contact:

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