



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

Statement of Response

Gingin surface water allocation plan

Department of Water

April 2011

Statement of response -
Gingin surface water
allocation plan

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Statement of Response - Gingin surface water allocation plan

This statement is the Department of Water's response to the comments, issues and questions received on the *Gingin surface water allocation plan: draft for public comment* (DoW 2009). All of the comments received were considered in finalising the plan.

The public comment period

The plan was open for a three month public comment period from September to December 2009. At the beginning of the comment period the Department of Water (the department) notified 42 stakeholders, licensees and organisations that the plan was open for public comment.

An invitation to comment was advertised twice during the three month comment period in the West Australian, Chittering Times Regional Community Newspaper and the Gingin Advocate.

Comments received and the department's responses

We received seven submissions during the public comment period. Respondents and their associated interest group are listed in Table 2. Respondents representing a specific interest group have, in some cases commented on other areas of interest in the plan.

We appreciate the effort put into all of the submissions that were received and have considered the comments to improve the plan. This statement provides our response to the comments and summarises how they are addressed by the management arrangements set out the final plan.

Table 1 List of respondents, their interest group and number of responses from each group

Respondents	Interest group	Number of responses
West Australian Vegetable Growers Association Inc.	Agriculture and irrigation	1
Ellen Brockman Integrated Catchment Group Inc.	Conservation and environment	1
Individual (x 2)	Individual	2
Department of Agriculture and Food	Other State Government	1
South West Aboriginal Land and Sea Council Gingin Private Property Rights Group (Inc)	Community	2
	Total	7

The following tables summarise the main issues and questions raised through the public submissions and the department’s response to them. Comments are grouped according to the water allocation issue they relate to.

Table 2 General comments on the plan

Comment	Department of Water response
<p>Objectives</p> <p>One respondent suggested the following changes to the objectives:</p> <ul style="list-style-type: none"> i. A paragraph to put the objectives into context with the issues. ii. Change objective ‘a’ to ‘restore’ rather than ‘maintain’ the summer flow regime. iii. Include an objective to investigate surface/groundwater interaction in the plan area. 	<ul style="list-style-type: none"> i. Agree. The introduction in the final plan has been updated to focus on the main allocation issues and to put them into context with the objectives. The objectives have been refined to better reflect and manage the issues. ii. Disagree. Given the declining trends in rainfall and streamflow and the current demand for water in the plan area an objective to ‘restore’ the summer flow regime is unachievable Annual rainfall has declined since 1975. This has contributed to the decline in streamflow in most resources of the plan area. The climate is predicted to become drier over time. It is important to sustain the capacity of the resource to supply water for use as well as minimise the risk to the riverine environment in a changing climate. ii. Noted. The revised objectives in the final plan state what is to be achieved by implementing the plan in the Gingin surface water area (Chapter 2). The revised objectives were informed by surface and groundwater investigations completed by the department (see <i>Hydrogeology of Gingin Brook</i>, Hydrogeology Record series Report No HR286 (Tuffs 2010)). Section 1.2 in the plan explains the surface and groundwater interaction in the plan area in more detail. Additional hydrological and hydrogeological investigations will continue to be undertaken in the area, which is an important action by the department but not a specific objective of this plan.
<p>Resource mapping</p> <p>One respondent questioned the validity of information displayed in Figure 2 of the plan. Of particular concern is the misrepresentation of Wallering and Mungala brooks.</p>	<p>Noted. Aerial photography, LANDSAT images and groundtruthing were used to define flow paths in the plan area. Topography indicates the surface water system may not have well-defined channels and can be subject to change. Maps used by the department may not reflect any apparent creek line but rather represent the predicted course for sheet flow in large rain</p>

	events. Accordingly the department uses sub-catchments rather than individual creek lines as resource units.
<p>Supporting documents</p> <p>One stakeholder suggested the allocation limits method report should be referred to in the summary of the plan and again in Chapter 3 to demonstrate how allocation limits and the status of each resource was determined.</p>	<p>Agree. The <i>Gingin surface water allocation plan method report</i> is a key document and provides detail on how the department set allocation limits. It is useful to reference it early in the allocation plan. The final plan has been updated to reflect this.</p>

Table 3 Comments on consultation

Comment	Department of Water response
<p>Two respondents made comments regarding community consultation in development of the plan. They suggest:</p> <ol style="list-style-type: none"> i. Set up a Gingin advisory committee that works with the Department of Water on local water management issues. ii. Further consultation is required with traditional owners to make sure unregistered sites in the area are not affected by the implementation of this plan. 	<p>Noted. The department has developed the <i>Gingin surface water allocation plan</i> (DoW 2010a) in response to reports from the Gingin community about reduced reliability during the low flow summer period and stream disputes as a result. The department (and its predecessors) has worked with the local Gingin community over about the past 30 years to address these issues.</p> <p>In agreement with the (then) Gingin Brook advisory committee, the department capped allocations at entitlements in the mid 1990s. This was done so investigations into the impact of abstraction on other water users and the environment could be completed.</p> <p>The allocation plan and limits are the first developed for the Gingin surface water resources and are a result of the investigation process as well as collaboration with the local community.</p> <ol style="list-style-type: none"> i. The department acknowledges the Gingin Brook advisory committee was useful in the past and was involved in the development of this plan. The Gingin Brook advisory committee was disbanded following a state-wide government review of committees. <p>An allocation plan supported by a robust consultation process is a more equitable approach to water allocation planning.</p> <ol style="list-style-type: none"> ii. We contacted the South West Aboriginal Land and Sea Council and discussed the issues and concerns raised in their submission.

Table 4 Comments on managing the environment

Comment	Department of Water response
<p>Ecological flows</p> <p>Two respondents made several comments about maintaining ecological flows:</p> <ul style="list-style-type: none"> i. The community has reported reduced and no flow events. DoW should restrict entitlements particularly in low flow periods. ii. Need to consider associated wetlands and social values of the resource. iii. Suggest flexibility on day and time of pumping to ensure ecological flows are maintained. iv. The performance indicators relating to ecological flows and critical low flows have inadequate triggers to minimise ecological risk. 	<ul style="list-style-type: none"> i. Agree. The department set allocation limits to cap take from all surface water resources in the Gingin area. This acknowledges the decline in rainfall and streamflow. By implementing a recovery strategy in over-allocated resources, entitlements and total abstraction will be brought to within the allocation limits and prevent risk of future over-use. Abstraction during the low flow period will also be controlled through licence conditions that were developed as local licensing policies for the final plan (Chapter 4). ii. Agree. We did consider ecological and social values to set allocation limits. See <i>Gingin surface water allocation plan method report</i> for further information (section 3.5). iii. Agree. Local licensing policies developed for the Gingin plan area enable daily abstraction rates or timing of pumping to be included as licence conditions which are enforceable under the RiWI Act (Table 4 in plan). iv. Noted. For the final plan the performance indicator relating to ecological water requirements was removed. See section 3.4 of the allocation limits method report for further explanation. The current critical low flow thresholds may not be adequate in a drying climate and we have committed to review them. The revised thresholds will incorporate ecological as well as hydrological thresholds to better manage the risk to water users and the environment from low flow events. See Table 5 & 6 in the plan and Appendix F of the plan methods report for further information.
<p>Ground/surface water interaction</p> <p>Four respondents raised concerns about the lack of information in the plan on the surface and groundwater interaction in the plan area. Concerns focused on:</p> <ul style="list-style-type: none"> i. Further investigation required to understand the interaction. 	<ul style="list-style-type: none"> i. Noted. The final plan and methods report describe the surface and groundwater interactions in the plan area. This information is based on the recent hydrogeological investigation by Tuffs (2010). The report describes the hydrogeology of the plan area and identifies watercourses where groundwater

<p>ii. Management of the impact groundwater users may have on surface water users and vice versa.</p>	<p>discharge is important to maintain summer flow.</p> <p>ii. Agree. To manage the ground and surface water interaction we set allocation limits that cap abstraction from the ground and surface water resources in the Gingin area.</p> <p>In the Gingin area we identified that groundwater discharge is important to maintain summer flow in most surface water resources. This connectivity was also considered for the groundwater allocation limits review. Local licensing policy developed for the groundwater plan will guide assessment of applications for groundwater where the abstraction is likely to have an effect on groundwater contribution to a surface water resource.</p>
<p>Method – critical low flow threshold (CLFT)</p> <p>One stakeholder requested justification and rationale behind the CLFT set for Gingin Brook (10ML/day) and Molecap Hill (5ML/day) gauging stations.</p>	<p>Noted. Appendix F in the plan methods report explains how we set the critical low flow thresholds.</p>
<p>Questions</p> <p>1. The department needs to encourage existing users to reduce their take during periods of low flow. How does switching to using groundwater over surface water reduce the impact on surface water low flows?</p>	<p>Noted. The impact of groundwater abstraction on surface water flow depends on:</p> <ul style="list-style-type: none"> • the location of the abstraction bore in relation to the watercourse • the degree to which flow in a watercourse is maintained by groundwater discharge. <p>Abstracting groundwater, as opposed to direct surface water take, may have a reduced and delayed effect on surface water low flows depending on the level of connectivity between ground and surface water.</p> <p>The forthcoming <i>Gingin groundwater allocation plan</i> will have policies to guide licensing of groundwater abstraction to minimise the potential impacts on surface water flow.</p>
<p>2. In regard to future demand, will increased surface water and/or bore use incorporated with land use change have an impact on recharge to the Gngangara mound?</p>	<p>The superficial aquifer in the Gngangara area (the Gngangara mound) is recharged directly from rainfall. Groundwater discharge from this superficial aquifer contributes to maintain streamflow in Gingin Brook. This suggests that recharge to Gngangara mound would not be impacted by abstraction from the Gingin surface water resources.</p> <p>However climate, abstraction and land use is impacting the Gngangara Mound water resource and the ecosystems it supports. The draft <i>Gngangara Sustainability Strategy (GSS)</i> recommends options for increasing recharge to</p>

	<p>the system and reducing abstraction from the system.</p> <p>The Gingin surface water, groundwater, and Gnanagara allocation plans have restricted the amount of water available for future use consistent with the directions of the GSS. Future demand may be met through trading, and alternative water sources (such as recycled water).</p>
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Table 5 Comments on water availability

Comment	Department of Water response
<p>Recouping water entitlements</p> <p>Two stakeholders made comments on the policy regarding water entitlement recoups. The comments:</p> <ol style="list-style-type: none"> i. Suggest entitlements should be recouped if: <ul style="list-style-type: none"> • water is being used inefficiently • abstraction in a resource has been identified as possibly exceeding ecologically sustainable limits. ii. Support the policy of recouping unused water entitlements but do not support this water being available for reallocation in Lennard Brook. 	<ol style="list-style-type: none"> i. Agree. A recovery strategy has been implemented in resources that have been affected by reduced rainfall and where abstraction is likely to be greater than what would be sustainable. In addition, not all licensed entitlements are fully utilised so to prevent future over-use the department will actively seek to recoup unused entitlements to within the allocation limits. ii. Disagree. The allocation limit is set at 100% of the current estimate of total take in Lennard Brook. This will allow recouped volumes in Lennard Brook to be reallocated for licensing because flow monitoring records from Molecap Hill gauging station identify Lennard Brook to have an increasing trend in streamflow (from 1975 – 2001). The department may review this decision through the annual plan evaluation process based on the response of streamflow to rainfall and abstraction in more recent years. <p>All water users are encouraged to be efficient with their water use as water savings made through efficiency measures may be traded (<i>Operational policy no. 5.13 – Water entitlement transactions for Western Australia</i>).</p>
<p>Setting allocation limits</p> <p>One stakeholder suggested that if rainfall increases in the future then so too should allocation limits.</p>	<p>Noted. Rainfall trends were a key consideration when determining the allocation limits for the <i>Gingin surface water allocation plan</i>. In the Gingin area there has been a progressive decline in average annual rainfall over the period of record (1889-2007), with a notable step down since 1975. The CSIRO sustainable yields project (2009) projects that rainfall will decline by an additional 15% by 2030</p> <p>Given past and projected rainfall trends it is unlikely that rainfall will increase at this stage.</p>
<p>Questions</p> <ol style="list-style-type: none"> 1. With reference to Table 3 (3.1.2), 	<p>Noted. Water availability is subject to change as entitlements are issued and amended. Please</p>

<p>where can applicants find out the amount of groundwater available for allocation?</p>	<p>contact the Swan Avon region for up to date groundwater and surface water availability information. Contact details are:</p> <p>Swan Avon Regional office 7 Ellam St Victoria Park WA 6100 Phone: 08 6250 8000 Fax: 08 6250 8050</p> <p>The forthcoming <i>Gingin groundwater allocation plan</i> will provide revised allocation limits and the total amount of groundwater set aside for licensing.</p> <p>An on-line Water Register is now available on the Department’s website. Potential applicants can now find out whether water is available in a particular area or details of current entitlements to facilitate access to water through trading (www.water.wa.gov.au/ags/WaterRegister).</p>
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Table 6 Comments on metering

Comment	Department of Water response
<p>Four stakeholders commented on metering, stating:</p> <ul style="list-style-type: none"> • support for the strategy • metering should be a condition of licenses rather than subject to federal funding. • meters on dams are too costly and inefficient to measure abstraction from dams • explanation of the Metering Implementation Plan (MIP) is required 	<p>Noted. The department makes decisions and sets licence conditions for the installation of meters in accordance with <i>Strategic Policy 5.03 - Metering the taking of water</i>. In targeted high use areas of the state, such as Gingin, depending on funding we plan to assist in the installation or upgrade of meters. However, if identified as necessary through the licence assessment process, metering is the responsibility of the licensee and enforceable under the RiWI Act as a licence condition. Reference to the MIP has been removed from the final plan because implementation of it has been postponed.</p>

Table 7 Comments on water entitlement transactions

Comment	Department of Water response
<p>Trading</p> <p>One stakeholder requested further clarity on our trading policy, specifically:</p> <ol style="list-style-type: none"> i. trading of efficiency gains ii. trading in over allocated systems. 	<p>Noted. Chapter 4 of the final plan clarifies the state-wide trading policy and local licensing policies on trading between resource boundaries (Table 4 in the plan)</p> <ol style="list-style-type: none"> i. Efficiency gains will not be recouped as long as the saved water is used either through trading or expansion of the existing operation. See <i>Statewide policy no. 11 – Management of unused licensed water entitlements</i> for further details.

	<p>ii. Trading is already occurring in the Gingin surface water area. Trading in fully and over allocated systems is supported where the trade results in a reduced impact on existing users and/or the environment See <i>Operational policy no. 5.13 – Water entitlement transactions for Western Australia</i> for further details.</p>
<p>Transfers</p> <p>One stakeholder supports that when a property is sub divided, the department cannot guarantee the water licence will be transferred or split between the new properties.</p>	<p>Noted. A transfer of a water entitlement is a common licensing activity. The department uses the <i>Gingin surface water allocation plan</i> to guide transfer decisions as part of the 7(2) licence assessment (schedule 1, Division 2, clause 7 (2) of the RiWI Act).</p>
<p>Implications for trading</p> <p>There were opposing views on licence ownership and the implications for trading:</p> <ul style="list-style-type: none"> two stakeholders oppose the separation of water entitlements and land titles. Every land title should have a permanent water entitlement that can be leased but not sold –water should remain with the property as part of the title one stakeholder supports government ownership of all water entitlements to prevent buy back schemes. 	<p>Noted. Under our existing legislation, the RiWI Act, water licence entitlements are connected to the land, licence holders must have legal access to the land to access the water.</p> <p>Trading is already occurring in Gingin and the online Water Register now provides support for a trading environment.</p> <p>Any changes to trading will be considered as part of future policy development linked to new legislation.</p>

Table 8 Comments on riparian rights

Comment	Department of Water response
<p>One stakeholder requested clarification on riparian rights, particularly:</p> <ul style="list-style-type: none"> the volume of water the right allows if the entitlement could be traded. 	<p>Noted. The RiWI Act provides for a riparian right use of water where a licence is not required. In proclaimed areas the riparian right is for domestic and non-intensive stock use only. Our limits are currently 8000 kL for surface water storage (dams) and 1500 kL/year for groundwater. In rural areas the maximum amount required for stock and domestic activities is typically 1500 kL/ year.</p> <p>In unproclaimed surface water areas, water can also be taken for commercial use provided the use does not sensibly diminish the resource.</p> <p>Riparian rights cannot be traded because a licence is not required to utilise the right, therefore there is no entitlement to transact (<i>Operational policy no. 5.13 – Water entitlement transactions for Western Australia</i>).</p>

Table 9 Comments on water use efficiency

Comment	Department of Water response
<p>Two stakeholders raised water efficiency issues, stating:</p> <ul style="list-style-type: none"> i. Industry achievements in water and nutrient efficiency should be acknowledged. ii. To promote objective e (water use efficiency) the department should: <ul style="list-style-type: none"> o Not licence open drains o Ban overhead sprinklers and promote underground watering systems. 	<p>Agree. The twelve resources in the plan area are either fully-allocated or over-allocated and there is currently no water available above which is currently licensed. The only way to obtain a water licence will be via water entitlement transactions (trading, transfers and leasing) or measured efficiency gains. Water use efficiency will increase with demand for water.</p> <ul style="list-style-type: none"> i. Industry achievements will be acknowledged by allowing the trade of efficiency gains for economic gain. ii. Under the current legislation (RiWI Act) the department does not licence open drains if they are for the purpose of draining land and do not intercept the shallow groundwater table (section 5B, RiWI Act). The department can encourage industry and communities to improve water use efficiency but under our legislation we are unable to enforce use of specific options. <p>The Department of Water website has information on our water use efficiency programs for local government, developers and the community. The website also provides advice and information to individuals on the many water efficiency options available.</p>

Table 10 Comments on monitoring

Comment	Department of Water response
<p>Two stakeholders raised concerns on the effectiveness of the department's monitoring program given the location and limited number of gauging stations throughout the plan area.</p>	<p>Noted. Permanent streamflow gauging stations are one method of assessing surface water resources. However there are other techniques including temporary measurement sites and snapshot programs that also provide important information on surface water flows (see Appendix C of the allocation limits method report).</p> <p>Through the plan evaluation process, the department will assess whether the monitoring program is effective to support the objectives of the plan.</p>

Where to next?

We considered each comment and response in finalising the *Gingin surface 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 [www.water.wa.gov.au/managing our water>water planning>allocation planning>Gingin surface water](http://www.water.wa.gov.au/managing_our_water/water_planning/allocation_planning/Gingin_surface_water).

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