Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook

Issue Scoping Report

Beckwith Environmental Planning Pty Ltd

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The authors would like to thank all of the individuals and organisations who generously agreed to meet and share with us their knowledge and insights on the Margaret River, Wilyabrup Brook, Cowaramup Brook, Chapman Brook and the surface water management planning process.

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Sincerely,

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This document is the property of Beckwith Environmental Planning Pty Ltd. The opinions and recommendations in this report are those of the authors and do not necessarily reflect Department of Water policy or positions. Any questions or comments regarding this report should be directed to Dr Jo Ann Beckwith, Director, Beckwith Environmental Planning Pty Ltd via email jbeckwit@bigpond.net.au or phone (08) 9450 8711.

The Department of Water intends to publish a follow-up report that will address issues raised by stakeholders during the scoping exercise and set forth its public involvement process for subsequent stages of the water resource management planning process. Any questions regarding the Department’s work in relation to the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook should be directed to Mr. Rob Donohue, Programme Manager, email robert.donohue@water.wa.gov.au or phone (08) 6364 6500.
Executive Summary

Background

With funding from the South West Catchments Council, the Department of Water has commenced development of management plans for selected surface water resources in the South West. This includes four catchments in the Margaret River area: the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook.

As a first stage of the surface water planning process, the Department of Water commissioned an issue scoping exercise to:

- Gain an understanding of and document stakeholder issues and concerns regarding surface water resource management in these four catchments
- Provide advice regarding public involvement activities to complement subsequent stages in the surface water planning processes for these water resources.

The scoping exercise included interviews with representatives of a range of stakeholder interests. This included representatives of local governments, state government agencies, local landholders, environmental groups, the agriculture sector and Aboriginal interests.

The Margaret River catchment is the only one of the four in which the use of surface water is licensed by the Department of Water. The other three catchments are unproclaimed. Thus, surface water use is not licensed and the Department does not manage the resources. However, the Department of Water has advertised its intention to proclaim these three catchments in 2007.

Key Issues

Reduced streamflows and the prospect of further reductions (new on-stream dams, reduced rainfall and climate change) dominated discussions with stakeholders. In all four catchments there are concerns about the ability of the surface water resources to support the increasing demand for consumptive use. The Ten Mile Brook Dam provides drinking water for the Margaret River Town Water Supply Scheme. There are concerns that this source will not have the capacity to meet the needs of future population growth in the area. There is strong support for wastewater reuse initiatives as a means of reducing the pressure on water resources to meet consumptive demand.

In recent years, Wilyabrup Brook and Chapman Brook have experienced significant growth in the number of on-stream dams as local landowners use the surface water to support agricultural activities including vineyards. Not only the number but also the size of private dams and reservoirs is an issue. There is the perception that many dams are storing more surface water than needed for agricultural activities such as vineyards.

The retention of access water is attributed to landowners wanting an aesthetically pleasing water feature on their properties. Most of those interviewed view the private use of water for aesthetic purposes as a low priority use of water when compared to maintaining ecological values or economic activities such as agriculture.
With respect to the three unproclaimed catchments, the majority of stakeholders welcome the prospect of proclamation and the introduction of water use licensing. They are anxious to know how the Department of Water will determine which water uses are allocated water and how individual licence applications will be evaluated.

Compliance and enforcement is another key issue. In the case of the Margaret River, illegal pumping of river water by landowners without riparian rights is the major compliance and enforcement issue. In all catchments, there are questions regarding whether or not owners of in-stream dams are capturing too much water or failing to apply best management practices (e.g. opening of by-pass values).

Reduced streamflow has been the source of conflict between some neighbours, particularly along the unproclaimed Wilyabrup and Chapman Brooks. Disputes arise when a downstream water user believes an upstream neighbour is taking more water than usual or failing to open the by-pass valve on their dam. In unproclaimed catchments, these downstream water users feel they have no avenue of recourse.

Without a strong enforcement presence some water users will not comply with good water management practices. Examples of overuse in the unproclaimed catchments were given, to support the argument that expecting compliance without enforcement is not realistic. While some water users voluntarily adopt best practices without regulations being in place, too many others need clear regulations backed up by enforcement.

Most of those interviewed had extensive previous involvement in water planning exercises. However, the small number who had no or little experience were largely unfamiliar with the efforts of the Department of Water and other parties (e.g. state government agencies, the Whicher Water Resource Management Committee) in surface water planning and resource management. This is an indication that many in the local community are likely not well informed about water planning in their catchment. The Whicher Water Resource Management Committee could play an important role in public engagement provided the community profile of the Committee and its working relationship with the Department of Water is increased. The issue of intellectual property rights is a potential barrier to Aboriginal engagement in surface water planning processes.
# Table of Contents

1 Introduction .............................................................................................................. 1  
1.1 Background .......................................................................................................... 1  
1.2 Issue scoping ....................................................................................................... 1  
1.3 The catchments ................................................................................................... 3  

2 The Need for Water Management ......................................................................... 9  
2.1 Proclamation and licensing .................................................................................. 9  
2.2 Streamflows ......................................................................................................... 10  
2.3 Source of conflict ................................................................................................. 11  
2.4 Scientific understanding ....................................................................................... 11  
2.5 Population growth and drinking water ............................................................... 11  
2.6 Water quality ....................................................................................................... 13  

3 In-Stream Values .................................................................................................. 15  
3.1 Environmental flows ............................................................................................ 15  
3.2 Riparian zone management ................................................................................... 15  
3.3 Native fauna ......................................................................................................... 16  
3.4 Social values ....................................................................................................... 18  

4 Water Allocation ................................................................................................... 22  
4.1 Existing Conditions .............................................................................................. 22  
4.2 Water allocation and licensing ............................................................................. 23  
4.3 Compliance and enforcement .............................................................................. 27  

5 Public Engagement ............................................................................................... 29  
5.1 Dominant stakeholder messages ........................................................................ 29  
5.2 The Whicher Water Resource Management Committee ................................... 29  
5.3 Local community awareness ............................................................................... 31  
5.4 Surface water planning timeline .......................................................................... 32  
5.5 Aboriginal intellectual property and consultation ............................................... 36  
5.6 Types of information ............................................................................................ 38  
5.7 Information mechanisms ...................................................................................... 39  
5.8 Plan and monitor .................................................................................................. 41  

References .................................................................................................................. 42  
Appendix A – Background Materials ........................................................................ 44  
Appendix B – Stakeholders Interviewed .................................................................... 48  
Appendix C – Public Engagement Techniques ............................................................ 49
1 Introduction

1.1 Background

The Department of Water (DoW) is the State Government agency responsible for water resource planning in Western Australia. With funding from the South West Catchments Council, the Department has commenced development of management plans for selected surface water resources in the South West. It has identified four catchments in the Margaret River area as priorities for surface water management. These are the Margaret River, Wilyabrup Brook, Cowaramup Brook and the Chapman Brook catchments. Boundaries for the four catchments are shown on Map 1. Similar surface water planning processes are ongoing for the Capel River, Brunswick River and Lefroy Brook catchments.

The DoW’s surface water planning process will establish, for each surface water resource, the sustainable water yield and set limits on abstraction. The planning process includes:

- Determining the values associated with water resources including environmental, social and economic values
- Identifying current consumption and predicting future demand for surface water resources
- Gaining an improved understanding of the hydrologic relationships between ground and surface water resources
- Assessing the quantity of water needed to support the natural environment and the amount that can be diverted to consumptive uses.

The surface water management plans will guide the Department’s approval of future licences to take and use water for purposes such as irrigation. This will prevent the resource from over allocation and allow it to continue to meet multiple uses (environmental, economic and social). It will also protect individual entitlements and the economic viability of licensed users.

1.2 Issue scoping

Public involvement is an integral component of water resource management. As a first stage of the surface water planning process, the Department of Water commissioned the issue scoping exercise documented in this report. The objectives of the scoping exercise were to:

- Gain an understanding of and document stakeholder issues and concerns about surface water resource management for the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook catchments
- Provide advice regarding public involvement activities to complement the subsequent stages of the surface water planning processes for these water resources.
Map 1 Margaret River area catchments in the study
The scoping exercise included individual interviews with representatives of a range of stakeholders. With the assistance of the Department’s Bunbury Office, stakeholder representatives from the various catchments were identified for interviews. This included representatives of local governments, state government agencies, local landholders, environmental groups, the agriculture sectors and Aboriginal interests.

Prospective interviewees were contacted by telephone and email to request their participation and arrange a convenient date and location for an interview. A brief background document was sent to all study participants in advance of the interviews. It described both the DoW water planning and issue scoping processes (Appendix A).

Individual in-depth face-to-face interviews examined the surface water management issues of the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook. In total, 31 interviews were conducted between 21 September 2006 and 9 January 2007 (Appendix B). One stakeholder provided comment via email rather than an interview. All those who participated in the scoping exercise will receive a copy of the scoping report.

The interviews identified a broad range of issues and topics. These are discussed in subsequent chapters of this report as key themes. The final chapter includes suggestions and recommendations regarding public involvement in the subsequent stages of the DoW surface water planning processes for the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook.

Due to the proximity of the four catchments and a significant overlap in stakeholder interests and issues, all four Margaret River area catchments are described in this report.

1.3 The catchments

Margaret River Catchment

The 470 km² Margaret River catchment is located in the Shire of Augusta-Margaret River (Map 2). The River is approximately 60 km in length. The headwaters of the Margaret River are in State Forest on the Blackwood Plateau. From the State Forest the River flows westward, passing through agricultural areas (e.g. dairies, vineyards and olive groves), the Margaret River townsite, lifestyle properties before reaching the Indian Ocean.

The Margaret River was proclaimed in 1947 under the Rights in Water and Irrigation Act 1914 (RIWIA). Water users in the Margaret River catchment require water licenses from the Department of Water, except when water is used for domestic¹ and stock purposes.

Water supply for the Margaret River Town Water Supply Scheme comes from the Water Corporation’s Ten Mile Brook Dam. The Scheme provides public water supply to the townsites of Margaret River, Prevelly, Gnarabup and Cowaramup.

¹ Under the s9 of the Rights in Water and Irrigation Act 1914 Water can be taken for stock or domestic purposes by landholders with land through which the River passes or by landholders holding land contiguous to the River.
Map 2 Margaret River
**Wilyabrup Brook Catchment**

The Wilyabrup Brook, Cowaramup Brook and Chapman Brook catchments are unproclaimed water catchments and thus private water use is not licensed by the Department of Water.

The Wilyabrup Brook catchment is 89 km². The Brook is almost 20 km in length. It runs through both the Shire of Busselton and the Shire of Augusta-Margaret River (Map 3). The main branch of the Wilyabrup Brook starts east of the Cowaramup townsite and flows in a north-westerly direction. The north branch and the main branch meet east of Caves Road. The Brook then flows westward to the Indian Ocean.

The Brook flows through an area dominated by agriculture (84% of the catchment). This includes viticulture, olive groves, grazing and pasture, and dairies. There is a small portion still covered by native remanent vegetation (12%). Only 4% of the land in the catchment is residential (Cape to Cape Catchments Group 2006).

Water users in both the Wilyabrup and Cowaramup Brook catchments are heavily reliant on surface water for private supply. West of the Bussell Highway little groundwater is available for use; east of the highway groundwater is more readily available.

**Cowaramup Brook Catchment**

The unproclaimed Cowaramup Brook starts south of the Cowaramup townsite and flows westward. It passes through areas used for agriculture (e.g. dairies and vineyards), lifestyle blocks, residential development and the Leeuwin Naturaliste National Park. The Brook meets the Indian Ocean at Cowaramup Bay, near Gracetown (Map 4).

**Chapman Brook Catchment**

The Chapman Brook is composed of two branches. One branch starts south of the Witchcliffe townsite and the second starts south east of Rosa Brook. The two branches flow southward towards the Blackwood River and meet approximately 3 km north of the River. From this meeting point the branches flow as one system into the Blackwood River (Map 5).

The 183 km² catchment is unproclaimed and dominated by agricultural land uses including dairy, viticulture, olive groves and tree plantations. Other land uses include lifestyle properties, State forest and National Park. The Chapman Pools located at the Warner Glen Recreational Site are part of the Blackwood National Park (Map 5).
Map 3 Wilyabrup Catchment
Map 4 Cowaramup Brook Catchment
Map 5 Chapman Brook Catchment
2 The Need for Water Management

2.1 Proclamation and licensing

Some stakeholder representatives were unfamiliar with the concept of proclamation and its need before the Department of Water can licence and manage the water resources of an area. The Margaret River was proclaimed in 1947 under the Rights in Water and Irrigation Act 1914 (RIWIA). This gave the Department of Water the power to licence water users, except when water is used for domestic\(^2\) and stock\(^3\) purposes.

The Wilyabrup Brook, Cowaramup Brook and Chapman Brook catchments are unproclaimed catchments and thus surface water use is not currently licensed. However, in December 2006, the Department advertised its intentions to proclaim these catchments. The Department expects proclamation to occur within the first half of 2007.

A large majority of stakeholder representatives want the Wilyabrup Brook, Cowaramup Brook and Chapman Brook catchments ‘actively managed’ by the Department of Water. Various stakeholders applied the term ‘active management’ when they referred to the licensing of water users, license enforcement, and other resource management activities (e.g. riparian zone management).

Interviewees were generally supportive of proclamation as a necessary first step in the water management process. Several stakeholders expressed concern that proclamation could stall the management process. They recognise its necessity as an administrative step, but do not want the Department of Water to ‘get hung up’ on this step.

Many of those interviewed want the Department to commence ‘active management’ in these catchments as quickly as possible following proclamation. Some commented that in the absence of active management there had been a proliferation of private on-stream dams along the Wilyabrup Brook and the Chapman Brook and some environmental degradation in the Cowaramup Brook catchment.

Several self-suppliers of water in the unproclaimed catchments were a little apprehensive of the prospect of water licensing, preferring to “go about their business” without a third party “looking over their shoulder”. However, they did see value in having an independent party (i.e. DoW) to resolve water resource problems and water user conflicts within a catchment.

\(^2\) Under the s9 of the Rights in Water and Irrigation Act 1914 Water can be taken for stock or domestic purposes by landholders with land through which the River passes or by landholders holding land contiguous to the River.

\(^3\) This excludes stock being raised under intensive conditions. Under the s21(4) Rights in Water and Irrigation Act 1914 intensive conditions: “are confined to an area smaller than that required for grazing under normal conditions and are usually fed by hand or by mechanical means”.

2.2 Streamflows

Most stakeholders believe streamflows have decreased in all four catchments. They attribute this to a combination of factors: reduced rainfall, climate change and the number of private on-stream dams. Many were unsure of the extent to which these factors individually contribute to the reductions. There is concern that further diminishment of streamflows would result in the water resources not being able to meet the demand for consumptive use or the needs of the natural environment.

A number of stakeholders identified climate change as a threat to long-term water availability in all four catchments. They want climate change scenarios taken into account in water resource decision-making, including water allocation decisions. Most did not suggest specific ways in which this might be achieved. Some proposed that resource managers make conservative water allocations as an application of the precautionary principle. Others suggested periodic reviews of water plans to allow appropriate management actions as the impacts of climate change become clearer.

Those interviewed identified the growth in the number of private on-stream dams as a significant concern, particularly in the Wilyabrup Brook and Chapman Brook catchments. The growth in the number and size of on-stream dams is perceived as unsustainable. Many commented that some private on-stream dams and reservoirs are unnecessarily large, capturing more water than needed. One stakeholder commented, “Some of the dams look more like lakes than dams”.

Those interviewed frequently noted the need for better management of releases from private on-stream dams (e.g. opening of by-pass valves) to support streamflows. However, some indicated that additional actions should be taken to alleviate the streamflow problems attributed to private on-stream dams. Some indicated that the owners of unnecessarily large dams and reservoirs should be required by the Department of Water to scale back their use. However, due the complexities involved
and political factors, they were sceptical that this would happen when licensing is introduced in the unproclaimed catchments. Others argued that existing levels of water use (historic use) via in-stream dams should be guaranteed when licenses are introduced.

Some stakeholders recommended a moratorium on new on-stream dams in the unproclaimed catchments. If conditions warranted, the moratorium could be lifted once the water resource is being managed (e.g. proclaimed, licensed, scientific studies completed) by the Department of Water.

2.3 Source of conflict

Several local landowners noted that reduced streamflow has been the source of conflict between some neighbours, particularly along the unproclaimed Wilyabrup Brook and Chapman Brook. The disputes typically stem from a downstream water user believing their upstream neighbour is taking more water than usual or failing to open the by-pass valve on their dam and thereby reducing the streamflow for downstream water users.

If the water users involved in the conflict cannot come to a mutually agreeable solution on their own, there is little recourse in unproclaimed catchments to resolve such disputes. One individual commented that when he/she had a dispute with their upstream neighbour over streamflow, the Department of Water indicated it could not take action because the catchment is unproclaimed. At that point, the individual did not know where to turn for assistance. The individual hoped the Department of Water would be able to assist in resolving such conflicts once the catchment is proclaimed.

Until proclamation occurs, self-supply water users would like more information about their rights as water users and in particular where to seek assistance when problems arise over streamflow.

2.4 Scientific understanding

Many stakeholders indicated that there is not a strong scientific understanding of the surface water resources, especially those in the three unproclaimed catchments. Groundwater and surface water interactions and ecological water requirements were identified as key areas for investigation. A strong scientific understanding of the water resources is viewed as a keystone to an effective water resource management program.

Interviewees also wanted to see monitoring of surface water quality and flows and asked the extent to which this was already occurring. Measurement of actual consumptive use was also identified as important information to support resource management decisions. Some of those interviewed suspect that licensed water users may be taking more water than their allocation.

2.5 Population growth and drinking water

Surface water stored at the Water Corporation’s Ten Mile Brook Dam supplies public drinking water to the townsites of Margaret River, Prevelly, Gnarabup and Cowaramup through the Margaret River Town Water Supply Scheme. When the reservoir does not
have enough water to meet demand, water levels are augmented by a pumpback on the Margaret River (Map 1). Residents located outside the townsites rely primarily on rainwater tanks for their domestic supply. A few stakeholders noted that when their rainwater tanks run low they top up their tanks with water from the Margaret River.

A number of stakeholders expressed concern that the area’s surface water resources may not be able to support the expected population growth in the area. Of particular concern is public water supply in the longer term for the town sites served by the Margaret River Town Water Supply Scheme.

Significant population growth is predicted for the Shire of Augusta-Margaret River. Growth projections by the Western Australian Planning Commission (WAPC, 2005) indicate the population will increase by 39.5% between in the period 2006-2021 (Table 1). On average, this would be an increase of 2.6% per year. Some of those interviewed believe the WAPC’s projections are too conservative and greater population growth will occur.

Table 1. Augusta-Margaret River population projections

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>11,900</td>
</tr>
<tr>
<td>2011</td>
<td>13,400</td>
</tr>
<tr>
<td>2016</td>
<td>15,000</td>
</tr>
<tr>
<td>2021</td>
<td>16,600</td>
</tr>
</tbody>
</table>

Source: WAPC 2006

Some stakeholders questioned whether the existing water supply scheme has the capacity to accommodate the predicted population growth at the town sites. According to the Shire of Augusta-Margaret River Town Planning Scheme (Department for Planning and Infrastructure 2004), most of the predicted population growth is likely to occur at the Cowaramup town site and on the eastern side of the Margaret River town site. Both areas are zoned for residential use but have not reached their development capacity. In the case of the new Margaret River development, the developer and Shire are examining options to reduce reliance on scheme water including the use of treated wastewater on green spaces.

The Water Corporation is evaluating the possible use of local groundwater aquifers, such as the Leederville Aquifer, as supplementary sources of drinking water. If adequate amounts of local groundwater are found, the Water Corporation would likely raise the Ten Mile Brook Dam and pump water from the aquifer into the reservoir.

Several other stakeholders believe additional water for public supply would come from the proposed Water Corporation pipeline to transport water from the Yarragadee aquifer. An amount of water would be diverted from the pipeline for the Integrated Water Supply System (IWSS) to the Ten Mile Brook Dam and reservoir.

One stakeholder was concerned about any proposal that would involve raising the height of the existing Ten Mile Brook Dam to increase the reservoir’s storage capacity. They feared the inundation of riparian vegetation would diminish ecological values.
Another stakeholder sought assurance that local surface water resources, such as Cowaramup Brook, would not be used to supplement water levels in the Water Corporation’s Ten Mile Brook reservoir.

Groundwater Investigations

The Department of Water is currently investigating groundwater resources across Western Australia. The program aims to improve the scientific understanding of the State’s groundwater resources, including distribution and quality of water, to improve planning and management. For the first three years of this program, starting in 2005, the focus is on metropolitan areas and horticultural districts, including Cowaramup. During 2006, 14 new monitoring bores were installed in the Cowaramup area. Initial assessments indicate there may be potential new groundwater resources in the Cowaramup area (Department of Water 2006). Further assessment is required.

2.6 Water quality

Nutrients, toxins and bacteria

A number of stakeholders expressed concerns about the potential impact of rural land uses on catchment water quality and public health. Most of these were associated with agricultural activities.

Fertiliser and pesticide run-off from agricultural activities were identified as threats to waterway health. Several stakeholders called for greater effort by State Government departments to help farmers reduce their reliance on fertilisers as well as pesticides. Others indicated information on best management practices for fertilisers are available to those willing to seek out the information.

Dairy waste runoff was also a frequently mentioned source of potential contaminants. Rich in nutrients, bacteria and microbes, it can be a significant source of contamination of watercourses. It increases the risk of Cryptosporidium and Giardia entering water supplies (DoE 2005). Several stakeholders recommended that State Government offer subsidies to dairy operations to encourage the implementation of new effluent reducing technologies by helping reduce the high costs to farmers. There was some recognition of efforts to promote information about best management practices in the dairy sector\(^4\). Better fencing was also encouraged to limit stock access to waterways and prevent erosion of streambanks.

Several stakeholders identified the wine industry as a source of nutrients requiring further study to determine its impacts on water quality. The new WineWatch wastewater project was identified as a step in the right direction. The collaborative project will examine the constituents found in wine industry waste and determine better ways to manage the waste. Participants in the WineWatch wastewater project include Curtin University, the Cape to Cape Catchments Group, and members of the wine industry.

\(^4\) The Department of Agriculture in conjunction with the Department of Environment and the Dairy Industry of WA produced the Environmental Management Guidelines for Animal-based Industries – Dairy Farm Effluent (1988).
Concern was expressed about bacterial levels in swimming areas along the Margaret River including the weirs and the River mouth. The primary season of concern is the summer, when the flow is low and slow moving. The Shire has initiated a project to determine if there is a bacterial contamination problem in the River. Water samples will be collected from early spring until the end of summer to monitor the River’s bacterial levels.

**Drinking Water Source Protection Plan**

Catchment protection of water sources is considered a fundamental part of ensuring the provision of a safe drinking water supply. The Margaret River Town Water Supply Scheme catchment was proclaimed under the *Country Areas Water Supply Act 1947*. The *Margaret River Catchment Area (including Ten Mile Brook Catchment) Drinking Water Source Protection Plan* seeks to ensure water from the catchment meets the national drinking water quality standards by appropriately managing the catchment area (Map 6) (DoE 2005).

Generally, recreation activities in Ten Mile Brook Catchment are restricted to an area downstream of the dam wall with only bushwalking permitted in the catchment. All water based activities are prohibited in the Ten Mile Brook and the intake pool (pumpback) on the Margaret River. Swimming in the State forest area is allowed at existing designated sites such as Canebreak Pool.

Many stakeholders are aware that management measures are in place to reduce the risk to the area’s primary drinking water source, the Ten Mile Brook reservoir. Several interviewees identified agricultural operations (dairying) upstream of Ten Mile Brook as a possible threat to water quality. The Water Corporation has been working with interested dairy farmers to adopt industry best management practices and systems.

**Stormwater**

Several stakeholders expressed concern about urban stormwater run-off to the Margaret River and its impact on water quality. Stormwater can pick up contaminants (e.g. oil) from roads, petrol stations and urban land uses and transport them to waterways such as the Margaret River. The Cape to Cape Catchments Group has partnered with the Shire of Augusta-Margaret river and the South West Catchments Council on a project to reduce the impact of urban stormwater. This will include mechanisms such as retrofitting drains and bio-filtration mechanisms such as reed beds.
3 In-Stream Values

3.1 Environmental flows

There was general support for the concept of ensuring that ecological water needs are met as part of the water allocation process. However, overall, stakeholders commented to a lesser extent on maintenance of dependent ecological values than they did on meeting the demand for consumptive uses of surface water.

During interviews, stakeholders indicated the importance of ecological values or their level of concern in a variety of ways. There were comments about the relationship between streamflow and ecological values. Reduced streamflow was interpreted as a sign of an unhealthy ecosystem. There were observations regarding the value of healthy riparian vegetation as habitat and/or its role in water quality management. In several interviews, the high biodiversity rating of the region (e.g. a ‘hotspot’) was highlighted as an indication of the value of the natural environment. An interviewee noted that the Cowaramup Brook area has high ecological value as it lies between two distinct vegetation areas. The value of river pools in summer as a drought refuge for animals, such as turtles and waterbirds, was also highlighted.

Some stakeholders suggested ways in which streamflow could be increased and thereby sustain dependent ecological values. This included adoption of best management practices in the operation of in-stream dams and reducing the amount of water currently captured for consumptive uses.

It was noted by some that, even if there is no reduction due to consumptive use, streamflows may diminish further as a result of climate change. It was recommended that the Department of Water err on the side of caution when determining environmental flow regimes.

Self-suppliers of water were particularly sensitive of the tension between meeting the water requirements of ecosystems and those of consumptive users (e.g. irrigators). Although they want to see the natural environment protected, they expressed concern that maintaining ecological flows would come at the cost of less water for consumptive users and in turn negative economic impacts for landowners. Wilyabrup Brook and Chapman Brook were identified as the resources where this tension is greatest.

A number of stakeholders wanted additional information regarding how environmental flows will be determined and managed. Few stakeholders offered advice on how environmental flow regimes should be determined. In identifying areas of ecological value requiring flows, several stakeholders referenced the work done by local catchment groups in developing the River Action Plans.

3.2 Riparian zone management

*Riparian zone: The zone along or surrounding a water body where the vegetation and natural ecosystems benefit from and are influenced by the passage and storage of water* (Water and Rivers Commission 2000).
Some stakeholders identified areas along the Margaret River, Cowaramup Brook and Chapman Brook where riparian vegetation has suffered. This was attributed to either reduced streamflows, trampling by stock or agricultural land clearing.

Efforts to rehabilitate and protect riparian areas along the Margaret River, Chapman Brook and Cowaramup Brook were acknowledged. Catchment groups have prepared River Action Plans for both the Margaret River and the Chapman Brook. These plans focus on the health and maintenance of riparian vegetation. The Cape to Cape Catchments Group is currently preparing river action plans for the Wilyabrup Brook and Cowaramup Brook.

Fencing of streamlines was identified as a primary tool for management of riparian zones. Stakeholders noted that increased fencing could prevent uncontrolled access of stock to waterways. Benefits of fencing identified by stakeholders included: reduced trampling of riparian vegetation, less erosion of stream banks and reduced nutrient and bacteria levels (e.g. animal waste).

Some stakeholders pointed to specific examples of fencing projects. The Lower Blackwood Landcare Conservation District Committee has worked with landholders in the Chapman Brook area to increase the amount of fencing along the waterway. This has included offering fencing subsidies as an incentive. As a result, a number of landholders have fenced their streamlines and constructed watering troughs as an alternative water source for their stock. The project has also been successful in raising community awareness of the need for fencing.

Fencing projects have occurred on the Margaret River with the help of the Cape to Cape Catchments Group and the Water Corporation. The Margaret River Action Plan reported that 20% of the length of the river had been fenced and an additional 25.5% required fencing (Cape to Cape Catchments Group 2003).

Stakeholders involved with the fencing projects believe more landholders would fence riparian areas if the subsidies were “more realistic”. The current subsidies are considered too small in relation to the cost of fencing. The cost of fencing should include the expense of replacing river access with an alternative water source for stock such as troughs.

Little comment was made about the riparian zones of the Wilyabrup Brook. This does not mean there are not issues but in the absence of public access to these areas most stakeholders were unaware of the condition of these riparian areas and thus not in a position to comment.

### 3.3 Native fauna

A number of stakeholders commented on the dependency of some native fauna on surface water resources. One species commonly mentioned was the white bellied frog (Geocrinia alba) found in the Chapman Brook catchment. The frog is listed under the Environment Protection and Biodiversity Conservation Act 1999 as an endangered
Decreasing water quality and habitat destruction are threats to the survival of the white-bellied frog in the Chapman Brook catchment. This includes fertilizer contamination from adjoining agricultural land, increased salinity levels and siltation resulting from soil disturbance. It also includes changes in surface and sub-surface streamflow which can damage or flood their habitat (CALM 1995).

Infrastructure to impound water such as dams and weirs can be a major impediment to the movement upstream of some aquatic species. Several stakeholders applauded the construction of fish ladders at the weirs on the Margaret River. These facilitate the movement of native fish and lamprey past these structures. This is particularly important for the pouched lamprey (*Geotria australis*). The lamprey is born in a river but spends most of its adult life in the ocean. When the lamprey is ready to breed it must make its way back upstream.

A number of stakeholders discussed efforts to protect the hairy marron (*Cherax tenuimanus*) in the Margaret River. There are two marron species found in WA. Smooth marron (*Cherax cainii*) are widespread, found in most rivers and dams of the South West, and are the farmed aquaculture species. Hairy marron are found almost exclusively in the upper reaches of the Margaret River.

Both the smooth marron and the hairy marron have been found in the Margaret River. The hairy marron appear to be out-competed by the smooth marron, which grow faster and produce more young. The number of hairy marron dropped dramatically after the introduction of smooth marron in the early 1980s. The Department of Fisheries is undertaking work to assist the recovery of the hairy marron. The upper reaches of the Margaret River are now closed to recreational fishing of marron.

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5 Endangered species is defined in Section 178 of the *Environment Protection and Biodiversity Conservation Act* 1999 as a species with “a very high risk of extinction in the wild in the near future”.
Table 2  Native fauna observed along the Margaret River

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water rat</td>
<td><em>Hydromys chrysogaster</em></td>
</tr>
<tr>
<td>Brushtail possum</td>
<td><em>Trichosurus vulpecular</em></td>
</tr>
<tr>
<td>Western grey kangaroo</td>
<td><em>Macropus fuliginosus</em></td>
</tr>
<tr>
<td>Southern brown bandicoot or quenda</td>
<td><em>Isoodon obesulus</em></td>
</tr>
<tr>
<td>Lock-necked or oblong turtle</td>
<td><em>Chelodina oblonga</em></td>
</tr>
<tr>
<td>Marron</td>
<td><em>Cherax teniumanus</em></td>
</tr>
<tr>
<td>Dusky morrhen</td>
<td><em>Gallinula tenebrosa</em></td>
</tr>
<tr>
<td>Grey teal duck</td>
<td><em>Anas gracilis</em></td>
</tr>
<tr>
<td>Pacific black duck</td>
<td><em>Anas superciliosa</em></td>
</tr>
<tr>
<td>White-faced heron</td>
<td><em>Egretta novaehollandiae</em></td>
</tr>
<tr>
<td>Cormorant</td>
<td><em>Phalacrocorax spp.</em></td>
</tr>
</tbody>
</table>

Source: Cape to Cape Catchments Group 2003

3.4 Social values

In-stream social values include recreation, Aboriginal cultural values and aesthetic values.

Recreation

The highest proportion of water-related recreational activities occurs on or near the Margaret River. On the Chapman Brook, recreation is limited to the Chapman Pools. There are no known recreational activities along the Wilyabrup Brook.

The Margaret River is popular for canoeing. There are two commercial canoe operations located on the River. One operator takes tourists along the River via canoe and incorporates environmental education in the tour. The second operator rents out canoes to individuals or small groups. The canoeing businesses are reliant on the Margaret River having sufficient flows year round.

There are several popular swimming spots along the river, including the Wilmot Farm Weir and the Margaret River town weir (Map 2). Prior to the development of the Ten Mile Brook Dam in the mid-1990s, public supply for the Margaret River townsite was sourced from the Margaret River town weir. However, the weirs are popular spots for swimming. The weirs also provide river crossing points for walkers and cyclists.

The camping site at Canebreak Pool offers river access and water based activities such as swimming and canoeing. Land based recreation such as bushwalking and four wheel driving occurs throughout the forested areas of the
catchment. There is an extensive network of walking and biking trails that stretches along the lower Margaret River and east of Ten Mile Brook Dam.

The Margaret River provides opportunities for recreational fishing pursuits, primarily marroning. Marroning is permitted east of the Ten Mile Brook Source Protection Zone. There are signs along the Margaret River to assist anglers in identifying the marroning zones. The season typically runs for several weeks in January/February each year. The 2007 season will last for 23 days – noon, 12 January to noon 4 February 2007. A licence from the Department of Fisheries is required to catch marron.

The Margaret River is not one of the primary rivers for recreational fishing in the South West. This is because it is not stocked with trout and the native fish species are too small to attract the attention of many anglers.

One stakeholder indicated that bodyboarders dig out the mouth of the Margaret River so they can ride the backwash into the ocean. This has raised concerns about the potential detrimental effect of this practice on water quality and riparian vegetation near the mouth of the River. The Department of Water is undertaking a 12-month study of the Margaret River mouth (Augusta-Margaret River Mail 2006). The study includes fortnightly water quality monitoring and phytoplankton sampling. The results will help determine what impact the digging practice is having on the River.

The Chapman Pools is a popular recreation area at the confluence of the Chapman Brook and the Blackwood River (Map 5). Water based activities include canoeing and swimming. The confluence is adjacent to the Warner Glen Recreation Site, which is managed by the Department of Environment and Conservation (DEC).

Due to erosion on the riverbanks, cultural sensitivities and the safety risk to swimmers and canoeists, the DEC is seeking to make the Warner Glen Recreation boat ramp accessible only to non-powered boats. The DEC has already moved four campsites away from the riverbank to reduce erosion. Recreation facilities in the area have been
upgraded including hardening of camping, picnicking and river viewing facilities. The DEC's actions had the support of the local Noongar community.

The primary water related recreational activities near the Cowaramup Brook are walk trails along the waterway. The Gracetown Progress Association is working with the Shire of Augusta-Margaret River to protect additional land along the Cowaramup Brook. They are seeking to include the small portion of land that lies between the national park and Ocean along the Brook (Map 4), in the ‘land for wildlife’ programme. This will further extend walking opportunities along the Brook and help protect flora and fauna.

Aboriginal cultural values
The Aboriginal Heritage Information System of the Department of Indigenous Affairs (DIA) is the repository of information on Aboriginal sites in Western Australia. The Margaret River is identified on the register as a mythological site (Site ID 4495). This site includes the entire length of the Margaret River. As part of its surface water planning, the DoW is currently evaluating Aboriginal cultural values of the Margaret River, Wilyabrup Brook and Cowaramup Brook and the water requirements to sustain those values.

Aesthetic values
The river and pools provide an aesthetically pleasing backdrop to a number of bushwalking and biking trails and a setting for community facilities (e.g. Rotary Park).

The Margaret River is the focal point of Rotary Park at the northern entrance to the townsite. It features a steam engine and other historic memorabilia and is a memorial to the pioneers of the timber industry in the district. Rotary Park includes picnic and barbecue facilities, shaded areas, playground equipment, toilet facilities and information boards.

There is a bridge over the Margaret River which takes visitors from Rotary Park to the Old Settlement Historical Museum. Privately owned, it is a monument to the Group Settlement farms of the area.

Rotary Park is the start point for three heritage trails along the river. The Margaret River Heritage Trail is part of a state-wide network of heritage trails that were a

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6 The program is administered by the Department of Environment and Conservation. It is a voluntary scheme which seeks to assist landholders in providing habitat for wildlife
7 Not all Aboriginal sites may have been identified by previous heritage surveys but they remain protected under the Aboriginal Heritage Act 1972. The DIA recommends consultation with relevant Aboriginal communities and native title claimants to identify any additional Aboriginal Sites.
Bicentennial Project in 1988 of the Heritage Council. The River Walk heads south from the bridge at the Settlement Group and does a 2 km circuit. The Karri Walk is a 1.5 km walk through bushland. The 3 km Bridge Walk passes by the old town swimming hole used by early settlers.

Many of the farms and vineyards in each of the catchments use their irrigation reservoirs as water features on their properties (see Section 4.2).
4 Water Allocation

4.1 Existing Conditions

The Margaret River catchment is the only one of the four study catchments in which water users are currently required to have a water licence. There are 49 licensed surface water users in the catchment, including the Water Corporation. Collectively, they can take just over 3.0 GL a year of surface water from the Margaret River and its tributaries.

The Water Corporation is licensed to take 1.0 GL per year to provide drinking water quality supply to the Margaret River Town Water Supply Scheme. This water is sourced from the Ten Mile Brook Dam (photo).

Twenty private water users pump directly from the Margaret River and are licensed to take 0.5 GL per year. The other 28 licence holders are located on tributaries within the catchment. They include both direct pumpers and on-stream farm dam owners. Licensed to take 1.5 GL per year, many use the water for agricultural purposes.

A number of incidences of illegal river pumping have been identified near the townsite. A few residents who live close to but not on properties adjacent to the River’s riparian zone are pumping from the river. The issue has been whether or not these users fall within the definition of riparian rights. Under s9 of the Rights in Water and Irrigation Act 1914 water can be taken for stock or domestic purposes by landholders with land through which the river passes or landholders holding land contiguous to the river. The Department of Water and the Shire of Augusta-Margaret River are currently investigating these cases.

During summer, parts of the upper Margaret River dry out leaving only river pools. These pools are used by some direct river pumpers to meet their water needs. Several stakeholders expressed concern that this practice may be damaging ecological values. They noted that these pools provide an important environmental service in providing drought refuge for animals, such as turtles and waterbirds. The Department of Water

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8 A total of 556,075kL
9 A total of 1,543,725kL
10 This excludes stock being raised under intensive conditions. Under the s21(4) Rights in Water and Irrigation Act 1914 intensive conditions: “are confined to an area smaller than that required for grazing under normal conditions and are usually fed by hand or by mechanical means”.
has discouraged new water users from pumping from the river pools in the summer. Historical users continue to pump from the pools under their water licences.

4.2 Water allocation and licensing

Stakeholders are very aware that the demand for consumptive use is growing in each of the catchments. In the case of Wilyabrup Brook, many believe consumptive use is nearing or already at the sustainable yield of the resource. Stakeholders located in the three unproclaimed catchments are anxious to know how the Department of Water will set the limits for individual water licences once the catchments are proclaimed.

Priorities among water uses

Many stakeholders noted that, as the amount of available water decreases, it will necessitate setting priorities on the uses of the resource.

Some stakeholders expressed the view that meeting the water needs to sustain ecological values should be given the highest priority. They cited examples of where they believe reduced streamflows have diminished riparian zone habitat along the Cowaramup Brook. These stakeholders were particularly concerned that the environment might lose out in favour of consumptive uses. Interestingly, most of these stakeholders made a point of mentioning that they did not want to see agriculturalists hurt in the water allocation process.

Other stakeholders, mostly self-suppliers, are concerned that consumptive uses may receive smaller than needed allocations in order to meet the needs of the environment. These stakeholders do not want to see businesses, particularly those with already small profit margins, fail due to insufficient water. They recognise the environment is an important user but if not all use can be accommodated by the available water; they do not want to see economic hardship.

Other stakeholders believe all water uses should be given the same priority if reductions are needed to ensure the sustainability of a water resource. Each use, including maintenance of ecological values, would receive a proportionally equivalent reduction. A critical assumption is that all water users are efficient.

Several stakeholders indicated that higher use priority should be given to recreational uses and Aboriginal cultural values in favour of using water for aesthetic purposes on private properties. It was argued that recreation and Aboriginal cultural values provide more benefit to the wider community.

One stakeholder was particularly concerned about the use of a ‘first come first serve’ philosophy to water licensing when a water resource is nearing its sustainable yield (e.g. Wilyabrup Brook). He/she noted if the water resource is fully allocated and licensed, it would be hard for a landowner to change their land use or sell to a new landowner whose water needs may be higher.

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11 Historical refers to the amount of water being pumped at the time of proclamation.
**Dam approvals and water allocation**

A landowner wanting to construct a dam on their property is required under the town planning scheme to seek approval from the local Shire. To help assess dam applications, the Shire of Busselton and the Shire of Augusta-Margaret River have prepared dam policies. The policies outline application requirements and assessment criteria. The Shires consider issues such as the potential impacts of excavation, the restoration of riparian vegetation and the potential to interrupt landscape values.

In proclaimed catchments (e.g. Margaret River catchment), obtaining approval to construct an on-stream dam on a private property is a two-step process. First, landowners need to obtain from the Department of Water a licence to ‘take’ water. The second step is applying to the local Shire for approval to construct the dam. The dam policies of both the Shire of Busselton and the Shire of Augusta-Margaret identify the need for those proposing on-stream dams to obtain a water licence from the Department of Water.

In unproclaimed catchments, landowners do not need to apply for a water licence as part of the dam approval process. In the past, through informal arrangements, the Shires consulted with the Department of Water regarding whether the size (capacity) of a proposed dam was suitable from a water management perspective. This informal process no longer occurs. When local governments approve construction of an on-stream dam they are effectively making *de facto* water allocation decisions. Local governments would rather not be in this position, as water resource management is outside their regulatory responsibilities and is not a criterion they apply when evaluating applications for new dams.

Several stakeholders would like to see the Department of Water and the Shires working together when approving dam applications. It was noted that the Whicher Water Resource Management Committee has been working with the Department of Water and local governments to work toward a common dam policy (see Section 5.2).

**Drought proofing**

Some stakeholders contend that the Department of Water should give consideration to the need for drought proofing when assessing water licence applications. Some farmers have taken to setting aside an amount of water as a safeguard against a dry year. This may take the form of constructing a dam slightly larger than necessary or topping off a reservoir during the shoulder seasons. These water users view this as a prudent business practice and good risk management.

In the unproclaimed catchments, there is some concern on the part of self-suppliers that the water they currently set aside for drought proofing will not be included when water licensing is introduced. This reflects a fear that as water resources come under increasing demand, the Department, in an effort to accommodate as many water uses and users as possible, will leave self-suppliers with too little water to survive drought years.

**Recouping of water**

The recouping of water involves the Department of Water taking back unused water from a licensed user. The licence is then adjusted accordingly. Most of those who had
heard of the concept of recouping unused water were not familiar with the specifics of how it might occur. There were some requests for the Department to provide information about the rules for recouping\(^\text{12}\) (e.g. when and how).

Some self suppliers were concerned that if the Department allowed some consideration for drought proofing in water licences, this water would be recouped if drought conditions did not occur in the short-term and the water went unused for a number years due to favourable conditions.

In the unproclaimed catchments there are currently no water licences for water to be recouped. For these catchments, two schools of thought emerged. Some made the case for the Department of Water only licensing that water being used and not include any unused water in their assessment of a new licence application. This reflected the belief that some water users are capturing more water than they need to use. This issue was often raised as part of the discussion of aesthetic water on private properties. Others held the view that water users should be allowed under the new licences to continue to take their existing level of water use regardless of whether or not it was all being used. They contended that existing water use was a product of the Government’s failure to actively manage the water resource in unproclaimed catchments. Thus, individual water users should not be disadvantaged by having unused water not included in their licence. Some recommended that unused water be formally recouped after the licences are approved or used in water trading.

Rather than having to recoup water at a latter date, it was suggested that licences reflect the pattern of water use based on the type of crop to be irrigated. The example given was that of a new vineyard. Using best viticulture practices, a new vineyard would require more water in its start up period than later in its growth cycle. It was argued that this demand profile for a vineyard could be factored into the assessment of water licences for such uses. After the first few years, the water no longer needed for the maturing vines could, as a licence requirement, be returned to the system. Similar arguments could be used for other forms of agriculture and agroforestry.

**Aesthetic water**

An issue that drew strong sentiments was the use of water for aesthetic purposes on private properties. A number of stakeholders indicated that many agriculturalists especially vineyards and wineries were capturing considerably more water than needed for irrigation in order to create a water feature. People recognised that water features can have a positive impact on property values. In some cases, landowners use their water feature as an aesthetically pleasant backdrop for their restaurants. Those critical of capturing water for aesthetic purposes, believed that aesthetic use is a low priority water use and should not be accommodated if the water resource is at its sustainable limit. Instead, this water should be returned as streamflow for the benefit of both the environment and downstream users.

A small number of those interviewed considered aesthetic water on private property a legitimate priority water use. One person observed that if the water would otherwise be “rushing out to sea” then it is a wasted resource. It would be preferable for this water to

\(^{12}\) *Statewide Policy No 11: Management of Unused Licensed Water Entitlements* outlines when and how the Department of Water can recoup water (WRC 2003).
be captured and used either consumptively or aesthetically for economic gain. The potential to support a greater amount of native vegetation around a larger dam and reservoir was also mentioned.

The Shire of Augusta-Margaret River’s Dams Policy indicates that water stored in a dam reservoir should be for agricultural purposes. The policy states that dam construction approval will normally only occur “… where it is required to service an identified agricultural purpose or where it can be demonstrated that an environmental benefit will result” (Shire of Augusta-Margaret River 2002, Section 1.3). The policy further indicates that dam size will “… commensurate with an identified agricultural use made of the land or of that land in conjunction with other nearby land or where some special community benefit will be derived” (Shire of Augusta-Margaret River 2002, Section 1.4).

Many commented that agriculturalists get around the Shire’s policy by using their farm dams and reservoirs for dual purposes. They supply irrigation water and aesthetic water. Some felt that landowners were exploiting the situation by capturing far more water than needed solely for irrigation purposes.

**Wastewater reuse**

Wastewater was identified as an undervalued water resource and its reuse a means to reduce the demand for surface water. The most commonly discussed use for treated wastewater was irrigating green spaces. The notion of ‘fit for purpose’ use of water was raised in a number of interviews.

Examples of wastewater reuse efforts near Margaret River townsite were identified in interviews. The treated wastewater from the Margaret River Sewage Treatment Plant is sprayed onto the nearby DEC-managed pine plantation. While supportive of the reuse concept, some local stakeholders believed the wastewater should be directed to a better use than a tree plantation.

Projects currently exploring wastewater reuse as an option were also identified. The Margaret River Golf Club is working with the Water Corporation to reuse treated water from the Gnarabup Wastewater Treatment Plant. One stakeholder indicated that the Golf Club is currently negotiating easements with the DEC and private landholders to bring a pipeline from the treatment plant to the golf course. The Golf Club is waiting for further specifications regarding the necessary infrastructure (e.g. pumps, pipes) before seeking funds for the project.

The Shire of Augusta-Margaret River and the Lester Group have proposed to reuse treated wastewater from the Margaret River Sewage Treatment Plant to irrigate the east Margaret River public open space. This includes the school grounds of both the Senior High and the Primary Schools and the east Margaret River residential development. These areas are currently irrigated by water pumped from the Margaret River. The proposal would be a joint venture of the Shire, the Lester Group and the WA Department of Education and Training (Shire of Augusta-Margaret River 2006). The Shire and the Lester Group have lodged a grant application to fund the proposal.

The Witchcliffe townsite is exploring options to reuse water. Town planners and residents have looked at options for residential reuse systems as part of its growth using
a sustainability town model. One stakeholder noted that this has been a slow process but it is progressing.

Like Witchcliffe, the community of Gracetown is not on scheme water. LandCorp is looking to develop 140 residential lots at Gracetown and aims to “… set the standard for sustainable coastal living …” (LandCorp 2006, pg. 2). LandCorp is currently exploring sustainable water options, such as the use of rainwater for drinking water and Class A+ recycled water for non-drinking water uses. This development will require a self-contained wastewater treatment system to stop groundwater contamination from the current septic system. The agency is currently working through the concept planning phase, which they anticipate will last until April 2007 (Landcorp 2006).

Several stakeholders commented on the proposed Gracetown project. They welcomed the idea of a sustainable development but question how it will operate in practice. The potential for conflict between development of Gracetown and nearby Aboriginal burial sites was also raised.

### Water licence renewals

Several individuals sought clarification regarding what happens if a person’s current water licence expires before their licence renewal application is approved by the Department of Water.

If a licence holder applies for a licence renewal prior to the expiration of the existing licence, the licence holder continues to operate under the existing licence until the Department of Water makes a decision on the renewal application. The Department aims to issue renewals within 90 days unless additional information is required. Additional information may include referral of the licence to another department for advice or the approval of a clearing permit.

### 4.3 Compliance and enforcement

Compliance refers to the process by which an individual follows the rules, such as the conditions attached to a water licence. Enforcement is the process used by an agency to check on compliance. For example, the Department of Water checking to ensure water users are following the conditions of their water licences. If a water user is found to be in breach of a licence condition, the Department of Water can take steps to rectify the situation.

Many stakeholders discussed the need for enforcement to ensure that licence conditions are followed. At present, enforcement is applicable only to the Margaret River because it is the only licensed catchment in the study area. As the other study catchments are proclaimed and water users licensed, enforcement will become important in these areas as well.

A number of stakeholders believed that little DoW enforcement has occurred in the Margaret River catchment. Stakeholders cited non-riparian water users near the lower part of the Margaret River illegally taking water without a licence. Both the Department
of Water and the Shire of Augusta-Margaret River indicated they have been working together to resolve these cases.

Some stakeholders indicated that unfortunately without a strong enforcement presence some water users would not comply with good water management practices. Examples of overuse in the unproclaimed catchments were given, to support the argument that expecting compliance without enforcement is not realistic. While some water users voluntarily adopt best practices without regulations being in place, too many others need clear regulations backed up by enforcement.

Many stakeholders view enforcement as a key element of an effective water management regime. Some indicated they would like to see Department of Water staff have a more prominent on the ground presence. They also recognised that limited agency resources often make this difficult.

Stakeholders foresee that compliance and enforcement will become issues of concern in the Wilyabrup Brook, Cowaramup Brook and Chapman Brook as they are licensed. Stakeholders want to ensure that the Department’s compliance and enforcement functions are given adequate resources.

**On-stream farm dams**

There were many comments about owners of on-stream dams not releasing water in keeping with best management practices. While some dam owners are doing the right thing and opening their by-pass valves in a timely fashion, too many others (some suggested the majority) are not doing so.

The opening of by-pass values enables water to flow to downstream users and provides water to the environment. A number of stakeholders identified incidences in which they had experienced a reduction in flows although their upstream neighbour had a full dam. These examples occurred in the Wilyabrup Brook and Chapman Brook catchments. Most problems between upstream and downstream users occur in the shoulder seasons. During the shoulder seasons, rather than letting water pass during shoulder seasons, some dam owners top up their dams as an insurance policy or hedge against drier than normal conditions.

The proper operation of dam by-pass values is a requirement stipulated by Shire policy and DoW licences. Seasonal public reminders are provided by the Shires, including prominent notices on their websites. In the case of licensed water users, the licence conditions indicate when valves are to be opened. From the interviews, it appears that the lack of compliance is not due to dam owners being unaware of the requirements but insufficient enforcement.
5 Public Engagement

5.1 Dominant stakeholder messages

The following are the dominant public engagement issues raised during the stakeholder interviews:

- If public involvement in water resource management is to be meaningful, it should start long before the outcomes are decided.

- Public meetings are not the most effective mechanism for obtaining local input on an issue. The major shortcoming is the tendency for only a few community voices to dominate and these may not be representative of community opinion.

- The importance of engaging appropriately with Indigenous people on water management issues and exhibiting cultural respect for their connection with water resources was highlighted.

- Information provided to the community needs to be user-friendly and avoid technical jargon.

- Workshops can be a good mechanism for public input but, to be effective, they often need to have a limited focus rather than trying to solve multiple issues at one time.

- Individuals who take the time and invest the energy to participate in planning processes want to know how their input has been used in the decision making process. Too often, a feedback mechanism is not in place. Inadequate follow-up breeds scepticism and a view that the big decisions are already made and the agency is simply going through the motions.

- The need for and value of partnerships between government and non-government entities on water resource management issues was noted. Improving water use efficiency was identified as an issue that could lend itself well to partnership arrangements through education and extension efforts. The Department of Agriculture and Food’s Greener Pastures project was given as an example of an effective partnership between a state agency and area farmers.

- Some private self-suppliers expressed a desire to do the right thing but did not know what to do or where to get assistance. They would like positive guidance from the Department of Water regarding how they can be proactive in becoming better water managers in their operations.

5.2 The Whicher Water Resource Management Committee

The Whicher WRMC was established as a community based group to provide a direct link to the community’s views and play an integral part in managing and planning the water resources for the Whicher region. Established initially in 2002 as an informal advisory committee, in 2005 the WRMC became a formal advisory committee under

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13 The Greener Pastures project focuses on the economic and environmental impacts of nitrogen based fertilisers in intensive pasture systems.
the Rights in Water and Irrigation Act 1914. Local community members make up three-quarters of the committee membership. The Department of Water’s South West Regional Office provides executive support to the Committee.

Members provide the Department of Water with advice and assistance in considering the allocation and use of water resources in the Shires of Augusta-Margaret River, Busselton, Nannup and Capel. The DoW consults with the Whicher WRMC in the development of policies on water allocation and water resource management. The Committee provides the DoW with advice about priority issues and recommends management approaches.

The Whicher WRMC has prepared a number of discussion papers on priority issues. The focus has been on improving strategic and sustainable water resource management in the Whicher region. This has included “an urgent need to establish surface water systems and processes to sustainably manage this in-demand resource”, especially in the Capes area.

The Whicher WRMC has provided local knowledge and expertise to the Department of Water in the identification of priority catchments for proclamation based on the need for water resource management in the Whicher region.

Policy positions promoted by the Whicher WRMC include:

- Development of a Whicher Water Resource Management Plan to set the objectives and principles for the allocation and use of water resources in the Whicher region for individual licence holders (economic development) and the environment. This plan is currently being prepared by the DoW. A draft is expected to be ready by the end of 2007.

- A common dam policy for surface water in the Whicher Region is needed to better align the approval systems of the local governments and the Department of Water. The objective is for the assessment systems to complement each other and become more efficient and effective.

- The goal of water resource security can only be achieved through licensing, and licensing can only be brought about with proclamation.

- Security of water for the environment requires active management of the resource, and the Department of Water can only manage the resource when it has a statutory responsibility to do so.

**Role in community engagement**

The Whicher Water Resource Management Committee can play a valuable role in the public engagement process. It can act as one conduit of information to and input from the local community. Most of the committee members are well known to the community. Some members of the public may be more likely to contact them rather than approach the Department of Water with their views or to seek information about surface water issues. The exact form of any public engagement role the Committee would be willing to play over the course of the surface water planning process would need to be negotiated with the Whicher WRMC.
5.3 Local community awareness

Many of the individuals interviewed for the scoping exercise have a long history of involvement in water resource management issues. They typically have a good understanding of the role of the Department of Water and the general approach to surface water management. These ‘recognised’ stakeholders are frequently consulted as part of water planning efforts. In a sense, they are ‘insiders’ in the water planning process.

While the recognised stakeholders may even consider themselves over-consulted at times, most of the local community remains at a considerable distance from the planning process. The scoping exercise included a small number of interviews with landowners in the catchments who had little previous exposure to the Department of Water’s water planning efforts. They welcomed the opportunity to share their views and had many questions about various aspects of the surface water planning. These interviews highlighted the gulf between those who are long-time recognised stakeholders in water planning (i.e. the insiders) and those who, like most of the community, have had little previous involvement in water planning although they may have an interest and are potentially impacted by the outcomes. All people who live, work or own property in these catchments are stakeholders.

One of the challenges is to link the inner and outer circles of stakeholders. Different members of the local community will want varying degrees of involvement in the water planning process. For many, this may take the form of reading about the progress of the planning process in their local newspapers or simply knowing that others in their community are engaged in the planning. The level of involvement they are seeking is information.

Other local community members may want to play a more active role. As the scoping exercise was focused on recognised stakeholders, it is not possible to say with confidence what level of engagement local community members would like to have. However, based on the interviews with landowners and our experience with other water planning exercises, it is likely that there is a relatively small but significant sector of the local community who would be interested in a higher level of engagement. Providing appropriate mechanisms for their involvement in the water planning process can play an important community capacity building function.

It was clear from the interviews with landowners, that despite their interest in water planning, they were largely unfamiliar with the efforts of the recognised stakeholders including various state government agencies. Many had either not heard of the Whicher Water Resource Management Committee or had heard the name but did not know their function. In comparison, all stakeholders with previous involvement in water planning efforts were aware of the Whicher Committee and its role.

The Whicher Committee could become a more effective conduit of information to and from the local community by investing more effort in improving the lines of communication. The community profile of the Committee and its working relationship with the Department of Water should be increased. For instance, the Committee might run a monthly column in the local newspapers to highlight specific issues and actions.
Local community members also need to know how they can contribute their views to the Committee (e.g. phone, website, email).

Interestingly, those who did not know about the Whicher Committee frequently recognised the names of individual members when mentioned by the interviewer. To avoid having the community view the Whicher Committee as yet another high level abstract entity, information about the Committee should promote its composition and profile its individual members. This would assist in making the relationship between these individuals and the Committee clearer and make the Committee more accessible to the community.

5.4 Surface water planning timeline

Table 3 displays a tentative timeline for the Department of Water’s surface water planning process for the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook Catchments. It will take 2-4 years for all five stages of the surface water planning process to be completed.

When a planning process involves a protracted timeline of several years, it can be a challenge to maintain stakeholder interest. The Department is encouraged to view each stage in its water planning process as an opportunity for stakeholder engagement.

Stage 1 Example

The following takes a closer look at Stage 1 as an example of how public engagement can be woven into the water planning process.

Stage 1 planning activities include:
- the current issue scoping exercise
- landowner surveys of consumptive use by self-suppliers on the Wilyabrup, Chapman and Cowaramup Brooks
- an evaluation of Aboriginal cultural values of the Margaret River, Wilyabrup Brook and Cowaramup Brook and the water requirements to sustain those values.

The first question to be answered is: What are the public engagement objectives to be achieved in this stage? The objective should reflect the needs of the Department of Water but also those of other stakeholders in the process. The following are example objectives:
- To make stakeholders (including the local community) aware of the surface water planning effort and the Department of Water’s role.
- To provide the information needed for stakeholders to effectively participate in the planning process.
- To gauge local community interest in the planning process.
- To increase the public credibility and legitimacy of the water planning effort.
- To obtain local knowledge for the water use survey and cultural values study.
- To inform the community of the outcomes of the Stage 1 studies.
- To continue building working relationships with key stakeholder interests.
<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue scoping</td>
<td></td>
<td></td>
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<tr>
<td>Survey of consumptive use</td>
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<tr>
<td>Gather data on Aboriginal cultural/social values</td>
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<tr>
<td>Stage 2</td>
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</tr>
<tr>
<td>Develop hydraulic model</td>
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<tr>
<td>Assess river hydrology</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Assess riverine ecology</td>
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<tr>
<td>Develop flow model</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Develop digitised map of river hydrology and flow</td>
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<tr>
<td>Report on social/cultural values of the catchments</td>
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<tr>
<td>Stage 3</td>
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<tr>
<td>Determine ecological water requirements</td>
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<td></td>
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<td></td>
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<tr>
<td>Develop alternatives to address water resource management issues</td>
<td></td>
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<tr>
<td>Stage 4</td>
<td></td>
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<tr>
<td>Evaluate allocation scenarios (economic, social, ecological)</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Determine water provisions and preferred resource management measures</td>
<td></td>
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</tr>
<tr>
<td>Stage 5</td>
<td></td>
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<tr>
<td>Prepare draft water resource management plan</td>
<td></td>
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</tr>
</tbody>
</table>

14 At the end of Stage 1, the Department of Water will refine its timeline and staged planning activities.
Table 4 demonstrates how each objective might be addressed through one or more public engagement techniques.

Table 4  Examples of mechanisms to achieve public engagement objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Mechanism</th>
</tr>
</thead>
</table>
| • To make stakeholders aware of the surface water planning process, its value, and the Department of Water’s role. | • Newspaper articles  
  • Open house  
  • Whicher WRMC  
  • Newsletter |
| • To provide the information needed for stakeholders to effectively participate in the planning process. | Issue scoping will assist in identifying information needs  
  Information can be conveyed via:  
  • Newspaper articles  
  • Information on DoW website  
  • Whicher WRMC  
  • Open house on Stage 1 findings |
| • To gauge local community interest in the planning process. | • Establish a participants register  
  • Newspaper articles  
  • Open house on Stage 1 findings  
  • Whicher WRMC |
| • To obtain local knowledge for the water use survey and cultural values study. | • Landowner interviews as part of water survey  
  • Consultation with Aboriginal custodian of cultural information |
| • To inform the community of the outcomes of the Stage 1 studies. | • Open house  
  • Newspaper articles  
  • Newsletter  
  • A seminar for selected stakeholder interests |
| • To continue building working relationships with key stakeholder interests. | • Scoping exercise  
  • Open house on Stage 1 findings  
  • Whicher WRMC |
| • To increase the public credibility and legitimacy of the water planning effort. | • Each of the above will contribute to meeting this objective |

Some observations about Table 4:

• Public engagement objectives can be broad (e.g. credibility for the project) or very specific (e.g. obtain local knowledge for the water use survey). Typically a planning process will include both broad and more narrowly defined objectives.

• The public engagement objectives are not mutually exclusive.

• Some public engagement activities may contribute to satisfying multiple objectives.

• Multiple mechanisms may be needed to satisfy some objectives.

• Technical studies can offer opportunities for engagement. In the case of the scoping exercise consultation occurred with recognised stakeholder interests. The water use surveys involved consultation with landowners living along the waterways regarding their use of surface water. The cultural values study is involving Aboriginal
Many of the activities listed as part of later stages in the DoW workplan (Table 3) could also involve various stakeholders. For instance, studies to define the riverine ecology and determine ecological water requirements could be designed to include interaction with affected stakeholders (e.g. catchment groups, local landowners, relevant government agencies). The Department and its consultants are encouraged to seek out such opportunities. Benefits include access to expertise and local knowledge and greater legitimacy for the studies.

Stages 3 and 4 involve the development and evaluation of alternative water allocation scenarios and resource management actions. These planning activities lend themselves well to hands-on evaluation exercises such as workshops. Web-based evaluation exercises might also be conducted but have some limitations (e.g. accessibility).

**Key questions**

In designing public engagement activities, for each stage in the surface water planning process the following questions might be asked:

- What are the objectives and major outputs of this stage of the water resource management process?
- What interests in the community are potentially directly or indirectly affected by the outcomes?
- Will the study involve local knowledge as a source of data?
- Are there contentious or potentially contentious issues associated with this stage?
- What is the level of stakeholder interest in the activities in this stage of the study?
- What is the level of community understanding of the issues addressed in this stage of the process?
- What are the public engagement objectives for this stage (e.g., education, provision of information, obtaining local knowledge, gaining feedback on options, review of a study design, etc)?
- Given the available resources (e.g. funds, time, skills), what public engagement techniques (e.g. seminars, open houses, workshops, media, website based content, etc) can most effectively and efficiently achieve these objectives? It is critical that, whatever the final design of its public involvement strategy, the Department be in a position to deliver on its commitments. Too often, well intentioned but inadequately resourced public involvement programmes have proven costly to government agencies in terms of loss of stakeholder trust.

Collaborating with other parties can assist the resource manager in building strong working relationships and increasing credibility in the local community. The Department is encouraged to seek opportunities to partner with other stakeholder interests (e.g. environment, industry, Aboriginal community, agriculture, government agencies, local governments) on specific public involvement activities focused on issues of shared
interest. Examples of community-based groups the Department might collaborate with are shown in Table 5.

Table 5  Possible partners

<table>
<thead>
<tr>
<th>Group</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape to Cape Catchments Group</td>
<td>Environment</td>
</tr>
<tr>
<td>Lower Blackwood Land Conservation District Committee</td>
<td>Environment</td>
</tr>
<tr>
<td>South West Catchments Council</td>
<td>Environment</td>
</tr>
<tr>
<td>Ribbons of Blue</td>
<td>Youth/environment</td>
</tr>
<tr>
<td>South West Aboriginal Land and Sea Council</td>
<td>Aboriginal interests</td>
</tr>
<tr>
<td>Whicher Water Resource Management Committee</td>
<td>Multiple interests</td>
</tr>
<tr>
<td>Margaret River Wine Industry Association</td>
<td>Wine industry</td>
</tr>
</tbody>
</table>

It is important that the Department not place undue reliance or burden on these groups with respect to broader public involvement. Stakeholder groups have their own mandates and need to maintain legitimacy with their constituents. In addition, most of these groups consist of volunteers or have limited resources, meaning the expectations of what these groups can provide in terms of assistance to the Department in reaching community members should remain realistic.

5.5  Aboriginal intellectual property and consultation

Local Aboriginal community members are typically under-represented at many public engagement activities such as public meetings. Special effort is required to ensure appropriate mechanisms are in place to gain their input to the water planning process.

Consultation with Aboriginal stakeholders for the scoping exercise indicated they are sceptical of claims that government agencies will take on board their issues. They also embrace a more holistic approach to water resource management in which water resources are viewed as part of a larger landscape.

Although they are willing to share their perspectives, there is a deep concern about intellectual property rights. Aboriginal cultural custodians frequently receive requests from government agencies, corporations and researchers to share their traditional knowledge. Once the knowledge is given, the Aboriginal community can lose control of that intellectual property.

Aboriginal custodians interviewed for the scoping exercise gave examples of university academics seeking traditional knowledge from Aboriginal custodians but then taking ownership of that intellectual property through the publication of books and journal articles. The people conducting the research involving Aboriginal knowledge have benefited in terms of academic recognition but there has been little benefit to the Aboriginal community. These experiences have made Aboriginal custodians less willing to share information unless appropriate mechanisms are put in place to protect intellectual property rights. Left unaddressed, this issue could pose a barrier to Aboriginal community involvement in future water resource management efforts.

An engagement process has been designed for the DoW’s study of Aboriginal cultural values that reflects the principles and process recommended by the Australian Heritage
Commission (AHC) in the document *Ask First - A guide to respecting Indigenous heritage places and value* (2002). The draft engagement and evaluation framework is currently being refined through consultation with Aboriginal custodians in the study area. Once all issues are resolved, including that of intellectual property rights, data collection can commence.

The AHC guidelines include the principles that Indigenous people:

- are the primary source of information on the value of their heritage and how this is best conserved
- must have an active role in any Indigenous heritage planning process
- must have input into primary decision-making in relation to Indigenous heritage so they can continue to fulfil their obligations towards this heritage
- must control intellectual property and other information relating specifically to their heritage, as this may be an integral aspect of its heritage value.

In identifying and managing this heritage:

- uncertainty about Indigenous heritage values at a place should not be used to justify activities that might damage or desecrate this heritage
- all parties having relevant interests should be consulted on Indigenous heritage matters
- the process and outcomes of Indigenous heritage planning must abide by customary law, relevant Commonwealth and State/Territory laws, relevant International treaties and covenants and any other legally binding agreements’ (AHC 2002).

The South West Aboriginal Land and Sea Council (SWALSC)\(^{15}\) and the Wardan Aboriginal\(^{16}\) Centre are key aboriginal stakeholders in the study catchments. They provide

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\(^{15}\) SWALASC represents traditional owners of the South West and assists in Native Title claims. It is working with traditional owners on the natural resource management and has created regional consultative working groups. The catchments in this study are part of the Region 3 working group.
useful first contact points when identifying the appropriate people to meet with in the Aboriginal community.

Consultations should involve Elders, who are typically paid for their time, traditional owners and local Aboriginal people. Elders play an important role in the consultation process, as they provide an understanding of the history of and connection to the area.

5.6 Types of information

A strong information component is valuable to any public engagement strategy. In designing the information component it is useful to answer the following questions:

- What information do people need in order to be able to make a meaningful contribution to the process? Are there key concepts that need to be conveyed? Is there misinformation in the community that needs to be addressed?
- What information do stakeholders want?

The issue scoping exercise identified a number of questions that could be part of the information component of the public engagement and water planning processes. These include:

- What does proclamation mean for the unproclaimed catchments?
- Are the surface water and groundwater resources currently being monitored (e.g. quantity and quality)?
- How can stakeholders access monitoring data?
- Has there been a reduction in streamflow in each of the catchments and what have been the causes?
- How will climate change be factored into the decision-making process?
- How much water is needed to maintain the environment? How is this determined?
- How will allocations be determined?
- How will the Department of Water assess applications for water licences in newly proclaimed catchments?
- When is a water licence needed? What is the process for obtaining a licence?
- How does the Department of Water view aesthetic water as a use?
- How will the Department ensure that licence holders comply with their licence conditions?
- What rights are afforded to landholders with regards to access to and use of surface water? What recourse is available to landholders when disputes arise?
- How is water recouped?
- What is the role of the Whicher water resources management Committee?
- How can self-suppliers become better water managers in their operations?
- What options are being considered to supplement the Margaret River Town Water Supply Scheme?
- Is there groundwater available as an alternative source to surface water?
- How do groundwater and surface water interact in each of the catchments?

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16 The Wardan Aboriginal Centre was created by the Wardandi people as a place to share their culture with visitors. The Centre seeks to help increase understanding and reconciliation within the wide community.
s. How will Aboriginal interests be reflected in the decision making process?
t. What studies will be undertaken in the subsequent stages in the surface water planning process?

There appeared to be low awareness of many of the proposed State water reforms. Additional information on the proposed reforms would be beneficial.

5.7 Information mechanisms

The following are examples of information mechanisms that could be used over the duration of a 4 year water resource planning process:

- A Department of water webpage dedicated to the project
- Newspaper and radio articles/stories
- A periodic newsletter
- Creation of a public involvement database
- Information displays

Dedicated webpage

Increasingly community members look to websites for both general background and detailed information on topics of interest. As part of the Department’s agency website, a separate page could be developed for the surface water management projects being undertaken in the South West. This would include the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook project.

The content of such a webpage might include:

- Information on the need for the water resource management plans.
- Brief background on each of the surface water sources highlighting key issues.
- Brief summaries of key outcomes and progress reports.
- Links to technical reports pertaining to the study
- Identification of ways the public can contribute to the study (e.g. upcoming events, register for newsletter)
- A mechanism for readers to make comment (e.g. comment form, discussion thread)
- Contact information for the study, including the name of an individual to contact.

An interactive website could provide updated information on the project and obtain and respond to emailed comments from the public. At key project milestones, the website would be updated to provide the public with current information about the project.

One of the challenges in making a website effective is creating awareness of its existence. It is also important that those attempting to access the website are sent directly to the relevant page rather than simply to the welcome page of the Department’s website. The website could be promoted through other public information sources including newspaper articles and newsletters. Related interests, such as the South West Catchments Council, could be asked to provide information about the Department planning process and links to the project pages on their websites.
The Department cannot rely on the public accessing a website as their source of information. Other mechanisms (e.g. media) are needed to ensure the community is aware of the planning process.

**Media**

Local newspapers and radio provide an inexpensive and effective means of reaching the broader community with information about the catchment studies. Media outlets include: the ABC Radio Country Hour, the Augusta-Margaret River Mail, the Augusta-Margaret River Times, the Busselton-Margaret Times, and the Capes Herald. Additional information sources useful in communicating with farmers and rural community members include the Farm Weekly and Countryman publications.

The Department could provide the local media outlets with media releases and/or feature articles at various stages of the each of the catchment studies to keep the general community informed of outcomes, key choices, and the status of the studies.

The Department could highlight key regional personnel in their communication efforts and demonstrate the collaborative nature of the work with the South West Catchments Council.

**Newsletter**

The Department could publish a project newsletter at critical milestones in the project. The initial newsletter might focus on the need for the planning process and the Stage 1 outcomes. The first edition of the newsletter could be distributed extensively to households throughout the catchments. A newsletter would provide contact and project schedule information, and invite the public to participate and stay informed on upcoming events by joining a mailing list for future newsletters.

**Public involvement database**

A mailing list/database of stakeholders and interested parties is a valuable asset to develop. Such a database would contain contact details of local people who are interested in having a say in the study or simply being kept informed. Once registered on the database, individuals would receive regular updates (e.g. the newsletter) and be notified of upcoming events in which they could participate.

Opportunities to register on the database could be promoted through the website and newsletter. Information collected from those registering on the database might include:

- Name
- Email address (or mailing address)
- Affiliation
- Issues of particular interest
- Types of activities in which they would consider participating

**Information displays**

Information displays can provide a useful mechanism for bringing alternatives to the attention of the local community. Displays work most effectively when situated in highly trafficked areas (e.g. shopping centres) within a study area. By staffing the display some of the time, members of the public could also provide input to the evaluation through comment sheets or a brief questionnaire.
5.8 Plan and monitor

It is recommended that the Department of Water design a public engagement strategy for its surface water planning effort in the four catchments. The strategy should define objectives, criteria for success, identify activities, determine timing, assign responsibilities and address resource issues. It should map out how the engagement process fits within the broader context of the surface water planning process. An overview of commonly used engagement activities is provided as Appendix C.

The issue scoping report is effectively a snapshot of a particular point in time. As the surface water planning process progresses, stakeholder and agency perspectives may change on some issues and new issues will likely emerge. Additional stakeholders will also make themselves known.

As the DoW study progresses, the products of the various planning stages will become more defined. Because of the evolving nature of the planning process and outcomes, the potential opportunities for engagement should be reviewed at each stage in the process. Whenever the timeline for a planning process is lengthy, there are bound to be changes during its course. Ongoing monitoring of the public involvement strategy will allow the Department of Water to make any needed adjustments to their engagement strategy in a timely and effective fashion.
References


Department for Planning and Infrastructure. 2004. Shire of Augusta-Margaret River Town Planning Scheme No. 17. Perth, Western Australia.


Shire of Augusta-Margaret River. 2002. PE.31 Dams and watercourses. Margaret River, Western Australia.


Appendix A – Background Materials

Surface Water Planning
Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook

Background

As the State agency responsible for water resource planning, the Department of Water (DoW) is undertaking a number of surface water planning exercises in the South West. Among the priority areas identified are the Margaret River, Wilyabrup Brook, Cowaramup Brook and Chapman Brook catchments.

These catchments support a variety of environmental, social and economic values. These include consumptive uses such as irrigated agriculture, public water supply, and industry and non-consumptive uses such as recreation, heritage values and ecosystem maintenance. As the demands on these surface water resources continues to grow, so too does the challenge in meeting the current and possible future uses of these resources.

The DoW’s planning process for these surface water resources includes:

- Determining the values associated with water resources including the environmental, social and economic values.
- Gaining an improved understanding of the hydrologic relationships between ground and surface water resources.
- Identifying current consumption and likely future demand for surface water resources.
- Assessing the quantity of water needed to support the natural environment and the amount of water that can be diverted to other uses.

The above work is estimated to require 2-3 years to complete and will aid the DoW in its assessment of licence applications to take and use water. The knowledge gained will prevent the resource from becoming over allocated and thereby protect the natural environment, individual entitlements and the economic viability of licensed users.

The DoW has commenced a research and public consultation programme to provide the information needed to determine appropriate allocation limits. By working directly with community stakeholders, the consultation process aims to:

- Ensure that public issues and concerns are understood, documented and addressed
- Involve the public in each aspect of the decision making process
- Provide feedback to the public on how their issues influenced planning decisions
- Provide a way for stakeholders to provide advice and innovation in formulating solutions.
Issue Scoping

Our firm, Beckwith Environmental Planning, has been retained by the DoW to undertake an issue scoping exercise in the Wilyabrup Brook, Cowaramup Brook, Margaret River and Chapman Brook catchments.

The objectives of the issues scoping study are to:

- Gain an understanding of and document stakeholder issues and concerns about surface water resource management in the respective catchments
- Design a public involvement strategy as an integral component of subsequent stages in the surface water planning process.

The primary output of the scoping exercise will be an issues paper. The paper will report the outcomes of the interviews and explore the surface water resource management issues identified by stakeholders. It will also propose a community involvement strategy for subsequent stages in the surface water planning process.

We are contacting stakeholders, such as you, to request their participation in the scoping exercise. Representatives are being sought from a range of stakeholder categories including: local governments, community and environmental groups, agriculture, landowners, industry, the Whicher Water Resource Management Committee, and relevant state agencies (e.g. South West Development Commission).

Individual face to face meetings will be conducted with stakeholder representatives. The interviews will be undertaken by either Jo Ann Beckwith or Sabrina Genter. On average these meetings take 45-60 minutes of the individual’s time.

Once the meetings with stakeholder representatives have been completed, we will prepare a summary report synthesizing the key themes and issues raised during the consultations. While the issue scoping report may include some direct quotes to elaborate discussion points, no individual names will be attributed to any quotes or opinions in the report.

Following review by the DoW, each stakeholder representative will receive a copy of the issue scoping report.
Contact Information

Thank you for your willingness to participate in this study. If you have any questions please do not hesitate to contact us:

Jo Ann Beckwith PhD (Director)  
jbeckwit@bigpond.net.au

Sabrina Genter (Project Manager)  
sgenter@bigpond.net.au

Beckwith Environmental Planning Pty Ltd  
Phone: 08 9450 8711  Facsimile: 08 9450 8722  
www.beckwith-associates.com

The DoW project contact is:

Robert Donohue  
Programme Manager  
Phone: 08 6364 6500.  
robert.donohue@water.wa.gov.au
AREAS OF RIVERS TO BE SURVEYED

LEGEND

Brunswick River
Chapman Brook
Margaret River
Willyabrup Brook
Cowaramup Brook
Brunswick River
Margaret River
Chapman Brook
Lefroy Brook
Willyabrup Brook
Cowaramup Brook
Brunswick River

REQUESTEE: Ian Loh

MAP AUTHOR: Dianne Abbott

TASK ID: PP\SP\54045

DATE: 26th May, 2004

This map is a product of the Department of Environment, was printed as shown.

While the Department of Environment has made all reasonable efforts to ensure the accuracy of this data, the Department accepts no responsibility for any inaccuracies and persons relying on this data do so at their own risk.

(See attachment 1 for details of reach location)
## Appendix B – Stakeholders Interviewed

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State Government</strong></td>
<td></td>
</tr>
<tr>
<td>Julian Woodward</td>
<td>Department of Water</td>
</tr>
<tr>
<td>Peter Hanley</td>
<td>Department of Environment and Conservation</td>
</tr>
<tr>
<td>Aminya Ennis</td>
<td>Department of Environment and Conservation</td>
</tr>
<tr>
<td>Kim Williams</td>
<td>Department of Environment and Conservation</td>
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<tr>
<td>Greg Mair</td>
<td>Department of Environment and Conservation</td>
</tr>
<tr>
<td>Ross Doubikin</td>
<td>Water Corporation</td>
</tr>
<tr>
<td>Aaron Campbell</td>
<td>Water Corporation</td>
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<tr>
<td>Peter Godfrey</td>
<td>Department of Fisheries</td>
</tr>
<tr>
<td>Neil Frazer</td>
<td>Department for Planning and Infrastructure</td>
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<tr>
<td>Ian Dumbrell</td>
<td>Forest Products Commissions</td>
</tr>
<tr>
<td>James Dee</td>
<td>Department of Agriculture and Food</td>
</tr>
<tr>
<td>Peter Tille</td>
<td>Department of Agriculture and Food</td>
</tr>
<tr>
<td><strong>Local Government</strong></td>
<td></td>
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<tr>
<td>Merryn Delaney</td>
<td>Shire of Augusta-Margaret River</td>
</tr>
<tr>
<td>David Brash</td>
<td>Shire of Busselton</td>
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<tr>
<td>John McKinney</td>
<td>Shire of Busselton</td>
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<td><strong>Interest Groups</strong></td>
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<tr>
<td>Hayley Rolfe</td>
<td>Cape to Cape Catchments Group</td>
</tr>
<tr>
<td>Cassandra Jury</td>
<td>Cape to Cape Catchments Group</td>
</tr>
<tr>
<td>Drew McKenzie</td>
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<tr>
<td>Jackie Hassler</td>
<td>Lower Blackwood Land Conservation District Committee</td>
</tr>
<tr>
<td>Rod Whittle</td>
<td>Leeuwin Environment</td>
</tr>
<tr>
<td>Geraldine Clark</td>
<td>Margaret River Regional Environment Centre</td>
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<tr>
<td>Adrian Trivett</td>
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<tr>
<td>Mark Gibberd</td>
<td>Whicher Water Resource Management Committee</td>
</tr>
<tr>
<td>Rosemary Taylor</td>
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<td>Keith Scott</td>
<td>Whicher Water Resource Management Committee</td>
</tr>
<tr>
<td>Nick Powers</td>
<td>Margaret River Wine Industry Association</td>
</tr>
<tr>
<td>Harry Vosper</td>
<td>Western Australian Trout &amp; Freshwater Angling Association Inc.</td>
</tr>
<tr>
<td>Kane Moyle</td>
<td>Recfishwest [via telephone]</td>
</tr>
<tr>
<td>Steve McKinney</td>
<td>Gracetown Progress Association</td>
</tr>
<tr>
<td>Jen Stevens</td>
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</tr>
<tr>
<td>Deb Brooks</td>
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<td>Kathy Hall</td>
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<td>Helen Lee</td>
<td>Bushtucker Tours</td>
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<tr>
<td>Jason Sullivan</td>
<td>Brookland Valley Vineyard</td>
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<tr>
<td>David Sanderson</td>
<td>Houghton Wine Company/Brookland Valley Vineyard</td>
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<tr>
<td>Steve Palmer</td>
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<td>Vilma Webb</td>
<td>Aboriginal Elder</td>
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<td>Sue Walker</td>
<td>Pastoral and Graziers Association</td>
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<td><strong>Landholders</strong></td>
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<tr>
<td>Garry Cain</td>
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<td>Margaret Moir</td>
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</tr>
<tr>
<td>Ian Noakes</td>
<td>Landholder/Lower Blackwood LCDC</td>
</tr>
<tr>
<td>Tim Crimp</td>
<td>Landholder/Lower Blackwood LCDC</td>
</tr>
<tr>
<td>Christl DeGroot</td>
<td>Landholder</td>
</tr>
<tr>
<td>Bob Biddulph</td>
<td>Landholder</td>
</tr>
</tbody>
</table>
## Appendix C — Public Engagement Techniques

<table>
<thead>
<tr>
<th>Technique</th>
<th>Description and use</th>
<th>Advantages</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaflets/ Brochures</td>
<td>Used to convey information. Care should be taken in distribution.</td>
<td>Can reach a wide audience, or be targeted.</td>
<td>Information may not be understood or misinterpreted.</td>
</tr>
<tr>
<td>Newsletters</td>
<td>May involve a series of publications. Care should be taken in distribution.</td>
<td>Ongoing contact, flexible format, can address changing needs and audiences.</td>
<td>Not everyone will read a newsletter.</td>
</tr>
<tr>
<td>Unstaffed Exhibits or Displays</td>
<td>Set up in public areas to convey information.</td>
<td>Can be viewed at a convenient time and at leisure. Graphics can help visualize proposals.</td>
<td>Information may not be understood or be misinterpreted.</td>
</tr>
<tr>
<td>Local Newspaper Article</td>
<td>Conveys information about a proposal.</td>
<td>Potentially inexpensive form of publicity. Means of reaching a local audience.</td>
<td>Circulation may be limited.</td>
</tr>
<tr>
<td>Site Visits</td>
<td>Provides first hand experience of an activity and related issues.</td>
<td>Issues brought to life through real examples.</td>
<td>Difficult to identify a site that replicates all issues.</td>
</tr>
<tr>
<td>Staffed Exhibits or Displays</td>
<td>Set up in public areas to convey information. Staff available.</td>
<td>Can be viewed at a convenient time and at leisure. Groups can be targeted. Graphics can help visualize proposals.</td>
<td>Requires a major commitment of staff time.</td>
</tr>
<tr>
<td>Staffed telephone lines</td>
<td>Can phone to obtain information, ask questions or make comments about proposals or issues</td>
<td>Easy for people to participate and provide comments. Promotes a feeling of accessibility.</td>
<td>May not be as good as face-to-face discussions. Staff may not have knowledge to respond to all questions.</td>
</tr>
<tr>
<td>Internet</td>
<td>Used to provide information or invite feedback. On-line forums and discussion groups can be set up.</td>
<td>Convenient method for those with internet access.</td>
<td>Not all parties will have access to the Internet.</td>
</tr>
<tr>
<td>Public Meetings</td>
<td>Used to exchange information and views.</td>
<td>Can meet with other stakeholders. Demonstrates proponent is willing to meet with other interested parties.</td>
<td>Can be complex, unpredictable and intimidating. May be hijacked by interest groups or individuals. Little discussion.</td>
</tr>
<tr>
<td>Interviews, Surveys and Questionnaires</td>
<td>Used for obtaining information and opinions. May be self-administered, conducted face-to-face, by post or telephone.</td>
<td>Can identify existing knowledge and concerns.</td>
<td>Response rate can be poor. Responses may not be representative and opinions change.</td>
</tr>
<tr>
<td>Workshops</td>
<td>Used to provide background information, discuss issues in detail and solve problems.</td>
<td>Provides an open exchange of ideas. Can deal with complex issues and consider issues in-depth. Can be targeted.</td>
<td>Only a small number of individuals can participate. Full range of interests not represented.</td>
</tr>
<tr>
<td>Open-House</td>
<td>Location provided for people to visit, learn about a proposal and provide feedback.</td>
<td>Can be visited at a convenient time and at leisure.</td>
<td>Preparation for and staffing of the open house may require considerable time and money.</td>
</tr>
</tbody>
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49
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<tr>
<td>Community Advisory or Liaison Groups</td>
<td>People representing particular interests or areas of expertise (e.g. community leaders) meet to discuss issues.</td>
<td>Can consider issues in detail and highlight the decision-making process and complexities involved.</td>
<td>Not all interests may be represented. Requires ongoing commitment from participants.</td>
</tr>
<tr>
<td>Citizen Juries</td>
<td>Group of citizens brought together to consider an issue. Evidence received from expert witnesses. Report produced, setting out the views of the jury.</td>
<td>Can consider issues in detail and in a relatively short period of time.</td>
<td>Not all interests may be represented. Limited time may be available for participants to fully consider information received.</td>
</tr>
<tr>
<td>Visioning</td>
<td>Used to develop a shared vision of the future.</td>
<td>Develops a common view of future needs.</td>
<td>Lack of control over outcome. Needs to be used early in the decision-making process.</td>
</tr>
</tbody>
</table>

Source: Institute of Environmental Management and Assessment (1999)