Capel River — Surface Water Management

Issue Scoping Report

Beckwith Environmental Planning Pty Ltd

Prepared for

The Department of Water
Government of Western Australia

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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 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 Capel River should be directed to Mr. Rob Donohue, Programme Manager, email robert.donohue@water.wa.gov.au or phone (08) 6364 6500.
Executive Summary

The Capel River and its tributaries serve multiple consumptive and non-consumptive water uses. These include irrigated agriculture, mining and mineral processing, domestic use and ecosystem maintenance. The demands on the Capel River system are growing but currently there is not a management plan in place. In the absence of such a plan, surface water resources are vulnerable to overuse. In turn, this can lead to diminished ecological values and increased conflict among water users.

With funding from the South West Catchments Council, the Department of Water has commenced development of a surface water management plan for the Capel River. The planning process will establish the sustainable water yield of the resource and set limits on abstraction. These will guide the Department’s approval of licence applications to take and use water for purposes such as irrigation, industry, mining, and the servicing of population centres.

As one of the first steps in the planning process, the Department of Water commissioned Beckwith Environmental Planning Pty Ltd to conduct an issue scoping exercise. The study included interviews with stakeholder representatives from local government, state agencies, local landholders, environmental groups, industry, and the agriculture sector. The interviews explored stakeholder perceptions of the resource management issues associated with the Capel River.

The primary consumptive use of the Capel River is irrigation. This occurs through a combination of private farm dams and direct pumping from the River. Although there are over 65 landowners irrigating with surface water, only 15 have water licenses. A recent push by the Department of Water to licence irrigators using the Capel River has resulted in a significant increase in applications for water licences.

Study participants were asked their views with respect to the most appropriate flow regime for the Capel River. Some stakeholders want the existing flow regime maintained, with stream flows year round. The support for continuing summer flows derives from concern about the local ecology and the need to support human uses of the resource (e.g. irrigation). Many of those interviewed want more information before they form an opinion regarding the preferred flow regime. They want to know how alternative flow regimes (e.g. a dry river in summer) might affect the River and its users. They also want to know the process the Department will apply to determine the preferred flow regime. While many stakeholders have yet to decide upon a preferred flow regime, they often highlighted the value of allowing flows to support the river ecology.

Stakeholder opinions were divided regarding the priority to be placed on ecological water flows in the surface water allocation process. Some believe it should be a secondary priority to meeting the needs of consumptive uses such as irrigation. Others want resource managers to treat the water needs of the natural environment similarly to any other water use. There are also stakeholders who argue that ecosystem maintenance should have the highest priority in the allocation process.
As a group, irrigators put forward a variety of views regarding the merits of water licensing and the parties requiring licenses. Some support the licensing of both existing and future consumptive water users. Others believe only future consumptive users should be required to obtain water licences from the Department of Water. They believe there is enough surface water for existing users but ‘new’ users may disrupt this balance. This assumes that the current level of surface water use is sustainable and the Department would only grant licences to new users if sufficient water were available.

Few irrigators can see direct benefits arising from licensing their use. It is more a matter of meeting a regulatory requirement. The use of licence conditions as a resource management tool was often either not recognised or not particularly valued.

The symbiotic relationship between monitoring and enforcement was mentioned in many interviews. Both the monitoring of consumptive use and the enforcement of licence conditions are considered important components of good water resource management.

For the majority of those interviewed, water quality is a secondary resource management consideration for the Capel River. The volume of water in the River system and its allocation to consumptive uses are the primary resource management issues of concern. Water quality issues identified by stakeholders include salinity, nutrient loads, acid sulfate soils and sedimentation.

Some expressed concerns about what they view as inadequate riparian zone management. Specific management issues include the displacement of native flora by weed species and uncontrolled stock access to watercourses and riparian areas.

Numerous interviewees commented on the value of community involvement in the management of local water resources. Irrigators in particular identified the Capel Water Users Group as a local group that could contribute to management efforts on the Capel River system. Appropriate organisational structures and transparent decision-making processes were identified as required characteristics for community-based groups to be effective.
# Table of Contents

1.0 INTRODUCTION ................................................................. 1  
   1.1 Capel River and Surface Water Planning ......................... 1  
   1.2 Issue Scoping ................................................................. 1  
   1.3 Capel River Catchment .................................................. 2  

2.0 WATER SECURITY .............................................................. 5  
   2.1 Consumptive Water Users ................................................ 5  
   2.2 Licensing and Water Security .......................................... 6  
   2.3 Capel Water Users Group ............................................... 7  
   2.4 The Need for River Management ..................................... 8  

3.0 WATER MANAGEMENT ISSUES ........................................ 9  
   3.1 Ecological Values ......................................................... 9  
   3.2 Monitoring and Enforcement .......................................... 11  
   3.3 On-stream Farm Dams ..................................................... 11  
   3.4 Water Use Efficiency ..................................................... 12  

4.0 WATER QUALITY .............................................................. 12  
   4.1 Salinity ........................................................................... 13  
   4.2 Nutrient Effluent ............................................................. 13  
   4.3 Acid Sulfate Soils ............................................................ 14  
   4.4 Erosion and Sedimentation .............................................. 15  

5.0 LAND USE ........................................................................ 16  
   5.1 Riparian Zone Management ............................................ 16  
   5.2 Future Land Uses ........................................................... 17  

6.0 PUBLIC INVOLVEMENT ................................................... 18  
   6.1 Stakeholder Concerns ...................................................... 18  
   6.2 Principles of Public Involvement ...................................... 19  
   6.3 Options for Providing Information .................................. 20  
   6.4 Opportunities by Stage .................................................. 23  
   6.5 Aboriginal Community Engagement .............................. 24  
   6.6 Collaboration .................................................................. 25  

REFERENCES ......................................................................... 27  

APPENDIX A BACKGROUND DOCUMENT ............................. 29  
APPENDIX B STAKEHOLDER REPRESENTATIVES ................. 33
1.0 Introduction

1.1 Capel River and Surface Water Planning

The Capel River and its tributaries serve many consumptive and non-consumptive uses. These include irrigated agriculture, mining and mineral processing, domestic use and ecosystem maintenance. Despite its many uses, like many surface water resources in the South West, it currently does not have a water resources management plan. In the absence of such a plan, the surface water resource is vulnerable to over use. In turn, this can lead to diminished ecological values and increased conflict among water users.

The Department of Water (the Department) is the lead 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 including the Capel River. Similar planning processes are being undertaken for the Brunswick River, Willyabrup Brook, Cowaramup Brook, Margaret River, Chapman Brook and Lefroy Brook.

The surface water planning process will establish the sustainable water yield of the resource and set limits on the abstraction of water. The planning process includes:

- Determining the values associated with the water resource including its environmental, social and economic values
- Identifying current surface water consumption and predicting future demand
- Obtaining an improved understanding of the hydrologic relationships between the groundwater and surface water resources
- Assessing the quantity of water and flow regime needed to support ecological values
- Determining the volume of water that could be allocated to consumptive uses in a sustainable manner.

The plan will guide the Department’s approval of future licence applications to use water for consumptive purposes such as irrigation, industry, mining and the servicing of rural and urban communities. This will prevent the resource from becoming over allocated and allow it to continue to meet multiple uses. 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 water resource planning process, the Department commissioned Beckwith Environmental Planning Pty Ltd to conduct an issue scoping exercise. The objectives of the study were to:

- Examine and document stakeholder issues associated with water resource management of the Capel River and catchment
• Provide guidance to the Department regarding public involvement in further stages of the surface water planning process for the Capel River.

The scoping exercise involved individual interviews with representatives of a range of stakeholders with an interest in the future of the Capel River. The Department’s Bunbury Office assisted in the identification of representatives of stakeholder interests. This included representatives of local governments, state agencies, local landholders, environmental groups, industry and the agriculture sectors.

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. This described both the surface water planning and issue scoping processes (Appendix A).

In face-to-face interviews, the water resource management issues of the Capel River were explored. In total, 24 interviews were conducted in the period March - June 2006 (Appendix B). One stakeholder provided comment via email rather than an interview. Each participant in the scoping exercise will receive a copy of this report.

The interviews identified a broad range of water resources management issues. These have been organised into four main themes:

- Water security
- Water management issues
- Water quality
- Land use

Each theme is examined in the following chapters.

1.3 Capel River Catchment

The Capel River catchment covers approximately 653 km² (Map 1). The catchment includes several tributaries: Gynudup Brook, Tren Creek and Mullalyup Brook. The River passes through two shires – the Shire of Capel and the Shire of Donnybrook-Balingup.

The River flows from the edge of the Darling Scarp across the Swan Coastal Plain and into Geographe Bay. There is a notional dividing point between the upper and lower portions of the River at Goodwood Road. It is here that the Darling Scarp meets the Swan Coastal Plain, the terrain changes from rolling hills to flat plain, and the two branches of the Capel River converge.

Today, the River flows into Geographe Bay; however, this was not always the case. It used to flow into the Vasse-Wonnerup estuary¹ through a series of connected wetlands. In 1874, to

¹ The Vasse-Wonnerup system extends from the eastern edge of Busselton northward towards Forrest Beach. It is a Ramsar site under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat. The Convention provides the means to conserve and sustainably use wetlands of international importance, particularly those providing habitat for internationally important waterfowl.
control flooding, the Colonial Works Office cut an artificial river mouth through sand dunes so the River would flow into Geographe Bay. Although considered a success by local landholders of the time (Heritage Council of Western Australia 2004), the McCourt’s or Capel Cut led to some problems. Seawater started entering the Stirling wetlands and a sand bar developed at the River’s mouth. Weirs and levee banks were built to stop salt water from entering the wetlands and River. The sand bar still forms at the mouth but is broken seasonally when rains create strong river flows.

Map 1 Capel River catchment

Both the lower and upper portions of the catchment are dominated by agricultural land uses, including dairy and beef farming, fruit orchards and viticulture (White and Comer 1999). The upper portion of the catchment includes several areas of State forest.

Little recreational activity occurs on or along the River or its tributaries, although there is a small amount of recreational fishing along the River or from private dams.

**Licensed Entitlements**

Landholders began using water from the Capel River system in the 1950s. The catchment was proclaimed in 1969 under the *Rights in Water and Irrigation Act 1914*. At the time of proclamation, relatively little water infrastructure (e.g. private dams) existed along the River or its tributaries.
Proclamation gives the Department the power to license users, except in cases where water use is for private domestic or stock purposes. Landholders along the River began building private dams and pumps for irrigation in the 1950s, but most construction occurred between the 1970s and 1990s (Department of Water n.d.). Even with the significant increase in private water infrastructure, many surface water users remained unlicensed. Licensing water use was not a high State Government priority for the Capel River as water was readily available and there were few disputes. The few surface water licences issued were often in conjunction with a groundwater licence or in cases where a user wanted security for a large surface water allocation (i.e. greater than 0.5 GL/yr).

The situation changed in 2004 when a licence application was lodged for a large volume of water on a Capel River tributary (Department of Water n.d.). The applicant wanted to build an on-stream dam to take irrigation water for growing wine grapes. The Department (then the Department of Environment) determined that a better understanding of surface water use was needed before the licence application could be evaluated. It undertook to quantify domestic and commercial (e.g. irrigation) water use along the River through a water use survey completed in early 2006.

About 65 landowners either pump water directly from the River or have on-stream farm dams for irrigation. At present, 15 of these hold water licences (Bennett per comm. 2006). As part of the water use survey, the Department informed landowners that consumptive uses of surface water require licenses. As a result, approximately 20 landowners recently applied for water licences to provide security for their surface water use. The Department is expecting the lodgement of additional licence applications in the near future (Bennett per comm. 2006).

The primary consumptive use of the surface water of the Capel River system is irrigation. This occurs through private on-stream and off-stream dams or direct pumping from the River. Many of the licensed users are located in the upper catchment where private dams are the preferred method for accessing water. There are approximately 149 on-stream dams and 51 off-stream dams (Blake per comm. 2006). Many landowners have multiple dams on their properties. Direct pumping from the River is the dominant method employed in the lower portion of the catchment.

The Kirup Dam is located high in the upper catchment, north east of the south branch of the River. The Dam captures rainfall runoff in a small sub-catchment. The Water Corporation operates the dam and reservoir to supply drinking water to the nearby communities of Kirup and Mullalylup under the Kirup Surface Water Scheme. Water from the reservoir is pumped to a water tank in each town for distribution to residents and businesses. The Water Corporation licence allows 40,000 kL per year (0.04 GL/yr) to be taken from the Kirup Surface Water Scheme. Abstraction in 2002/03 was 26,400 kL (0.02 GL) (Water Corporation 2004).

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2 In the end the water licence was withdrawn as investors changed their minds on the project.
3 A licence is not required where a user has riparian rights and is using water for domestic purposes or stock.
4 An on-stream dam is created by construction of a structure across a watercourse to impound water.
5 An off-stream dam is created by constructing an embankment that is filled by pumping from a nearby watercourse, from a groundwater seep or via overland flow. Off-stream dams do not require an allocation licence.
The Challenge Dairy Co-operative\textsuperscript{6} has a processing plant near the Capel River in the Town of Capel. The plant produces cheese, cream and other dairy products. The Challenge Dairy has lodged a licence application to take 10,000 kL per year (0.01 GL/yr) from the Capel River (Bennett per comm. 2006). The Dairy has a licence from the Department of Environment and Conservation to discharge effluent from the plant, including the disposal of sludge on land and cooling water\textsuperscript{7} into the Capel River. In addition, the Dairy reuses treated water for irrigation purposes (Bennett per comm. 2006).

Iluka Resources Ltd\textsuperscript{8} has mineral sands operations, both mining and processing, near the townsite of Capel. The Capel operations produce titanium (e.g. synthetic rutile) and zircon products. Iluka Resources has licences to take 2.6 GL per year from a combination of surface water and groundwater sources. It also has a Department of Environment and Conservation issued licence to discharge effluent into the Capel River.

There is a high level of licensed groundwater use in the area (Bennett per comm. 2006). Some water users hold both surface water and groundwater licences (e.g. Iluka Resources).

\textbf{2.0 Water Security}

The majority of stakeholder representatives raised water security as an issue. They also discussed ways to provide greater water security for both consumptive users and the natural environment.

Some interviewees gave anecdotal evidence of reduced streamflows. This reduction, the drying climate trends, and the high level of consumptive use along the Capel River led many stakeholders to be concerned about the long-term water security for consumptive users and for the environment.

The Department’s recent water use survey and push for greater water allocation licensing have generated increased awareness of water security as an issue. The recent creation of the Capel Water Users Group is an expression of the concern among irrigators in particular.

\textbf{2.1 Consumptive Water Users}

Water security is a top priority for consumptive users (e.g. irrigators) along the Capel River. Many users rely on the River to make a living through irrigated agriculture (e.g. dairy farming, fruit orchards and viticulture). A number of these users also rely on surface water for domestic purposes. When rainwater tanks are empty some landowners pump from the River for household use while others use bore water.

\textsuperscript{6} The Co-operative has over 120 dairy farmers as members and purchased the Capel processing plant in 2001. Fresh milk supply comes from the Busselton, Cowaramup and Margaret River regions.

\textsuperscript{7} The cooling water is fresh water.

\textsuperscript{8} Created in 1999 through a merger of Westralian Sands and RGC.
While most of the irrigators interviewed believe that flows are currently sufficient to meet the needs of downstream users, not all agree with this view. Several commented that on some occasions, there is insufficient streamflow for those pumping directly from the River to meet their irrigation needs.

Interviewees identified at least one case of informal water trading being used to provide water security on the Capel River system. Upon request from downstream irrigators, the owner of a large on-stream dam in the upper catchment releases additional flow to meet the needs of the downstream water users.

Due to the significant level of consumptive use along the River, a few of those interviewed expressed concern that the natural environment may not receive adequate water in the longer term. While they believe there presently is enough water to meet the needs of the local ecology, they are concerned about future security of water for the natural environment.

### 2.2 Licensing and Water Security

As a group, irrigators are divided in their perceptions of the merits of licensing and of the parties that should be licensed.

Some support the licensing of both existing and future consumptive users. The licensing of existing use is viewed as an aid to the Department in determining if licence applications from new users would exceed the sustainable limit of the resource.

Others believe only future consumptive users should be required to obtain allocation licences. They feel there is enough surface water for existing users but ‘new’ users may disrupt this balance. The licensing of new users would provide greater security for both new and existing users. This position assumes that the current level of use is sustainable and the Department would only grant licences to new users if sufficient water is available.

Some irrigators contended that licensing would not provide any increase in security for water users. One individual asked rhetorically if the Department would bring in supplemental water if river flows diminished significantly and there was insufficient water to fulfil their licensed entitlement. If this would not be the case, then licensing would not provide greater long-term security. Several consumptive users expressed a similar sentiment.

Among irrigators, there are two sets of expectations regarding how the Department should treat the licence applications of existing water users. Some indicated that not only their right to take water but their existing level of use should be ‘grandfathered’ as part of the new licence. In other words, the new allocation licence would reflect current use. Others expect the Department to guarantee a licensed allocation to existing users but not necessarily the current level of abstraction. In their view, the volume of water allocated in a licence should be determined based on the River’s sustainable yield.
2.3 Capel Water Users Group

Some water users expressed more confidence in the ability of local water users to collectively manage the resource and provide greater water security, than in the regulatory agency’s (i.e. the Department’s) ability to do so through means such as licensing.

In early 2006, a number of irrigators decided to form a water users group to ensure the sustainable management of the surface water resources and provide long-term security for water users. The impetus for the Capel Water Users Group’s creation occurred several years ago. At that time, a farmer started abstracting more water in order to meet the additional water demand generated by an increase in farm production. The increased irrigation diminished the stream flow and had a negative impact on downstream users. Other irrigators quickly intervened and the farmer returned to the previous abstraction level. The case was cited numerous times as evidence of the effectiveness of ‘local’ rather than ‘state’ intervention.

The Capel Water Users Group has 14 members, selected through local public meetings or forums. Members are primarily irrigators along the River. The group met for the first time in April 2006 to define its role and plan its future. Some stakeholders envisage the Capel Water Users Group becoming a subcommittee of the Whicher Water Resource Management Committee. They are concerned that the regional scale of the Whicher Water Resource Management Committee’s focus could result in local Capel River issues not receiving the desired level of attention. The local water users group would provide such a mechanism and become a conduit to the Whicher Water Resource Management Committee.

Some suggested the Capel Water Users Group include two subcommittees - one for dam owners and one for direct pumper. Those pumping directly from the River were deemed more likely to experience water management problems than those with private dams. This reflects concern about the reliability of stream flows to meet the water needs of downstream users.

Many stakeholder representatives, especially irrigators, are enthusiastic about the role a water users group could play in local water resources management efforts. Others, while supportive of the general concept, highlighted the importance of establishing the right organisational structure and planning processes if it is to be effective. The following questions raised by stakeholders reflect these considerations:

- Should the group be comprised of only irrigators or should other water users be represented (e.g. non-consumptive uses such as recreation and heritage)?
- What responsibilities and powers will the group have?
- How will decision accountability and liability be addressed?
- What will be the relationships between the new water users group, the Department and the Whicher Water Resource Management Committee?
Whicher Water Resource Management Committee

The Whicher Water Resource Management Committee provides advice and assistance to the Department on allocation and use of water resources in the Shires of Augusta-Margaret River, Busselton, Nannup and Capel. This includes providing advice regarding the development and implementation of water management plans, priority issues, and recommended management approaches.

Established as an informal committee in 2002, it became a formal advisory committee in 2005 under the Rights in Water and Irrigation Act 1914. An aim of the Whicher Water Resource Management Committee is to provide a direct link to the community’s views in managing and planning the water resources of the Whicher region. The Whicher Water Resource Management Committee may make recommendations to the Department on whether unused licensed water entitlements in the Whicher Region should be retained or recouped. It may also make recommendations regarding the principles for reallocating recouped entitlements.

Three quarters of the Whicher Water Resource Management Committee is made up of community members. Any person can nominate for one of the 15 positions on the Whicher Water Resource Management Committee. Vacancies are publicly advertised and appointment is made by recommendation of a peer selection panel. The panel is presided over by the Presidents of the Augusta-Margaret River, Busselton, Capel and Nannup Shires.

2.4 The Need for River Management

When granting a water allocation licence, the Department has the ability to include conditions as part of the licence. The conditions define how and when water can be abstracted and specify the obligations the licence holder must meet. In this manner, licences are an important tool for managing surface water resources.

However, some stakeholders view licensing and resource management of the River as unrelated processes. They often described licensing as little more than a bureaucratic hurdle and not as a management tool. Many of the irrigators saw their preferred role for the Department as one largely limited to the issuing of licences for new water users. If additional water resource management was needed (e.g. to resolve a conflict between users), the local water users group could undertake that role.

Some stakeholders commented that active management by the State is important where surface water resources are under stress from factors such as reduced rainfall, increased industrial growth or expanding urban development. However, these individuals do not believe the Capel River falls into that category. Thus, there is no need for a high level of water resource management for the Capel River. As described in Chapter 3, not all stakeholders share this view.
3.0 Water Resource Management Issues

The water management issues raised by stakeholders were the maintenance of ecological values, the role of monitoring and licence enforcement, approval processes for on-stream dams, and water use efficiency.

3.1 Ecological Values

A key stage in the surface water planning process is the determination of environmental management objectives and a complementary flow regime for the River. Like most rivers in the South West, the flow regime of the Capel River system has changed significantly over time due to human activity. Once an ephemeral (i.e. seasonal) river, flood irrigation, seepage from dams and land clearing have produced a river that flows year round. Several of those interviewed could remember a time when the river bed would almost dry out in summer.

While many stakeholders were uncertain as to the preferred flow regime for the Capel River, the importance of allowing flows to support the ecology was highlighted. Some wanted the existing flow regime maintained, with stream flows year round. While some wanted the current regime of summer flows maintained due to concern about the local ecology, others wanted summer flows in order to support human uses of the resource.

Many of those interviewed indicated they would need more information before they can give specific input regarding a preferred flow regime. They were interested in knowing how the Department would determine the preferred flow regime. They also wanted to know how alternative flow regimes (e.g. a dry river in summer) might affect the River and its users.

With respect to providing water to the natural environment, there is a wide spectrum of stakeholder views. Some stakeholders believed the water allocation process should treat the maintenance of ecological values as a secondary priority to meeting the needs of consumptive uses such as irrigation. Others suggested that resource managers should treat the natural environment similarly to any other water use. One stakeholder commented that in drought conditions, allocations to all categories of water use (e.g. irrigation, municipal supply) should be reduced by the same percentage. This includes water assigned to meet the requirements of the local ecology. There were also stakeholders who indicated that ecosystem maintenance should have the highest priority. In other words, in the allocation process sufficient water should first be set aside for the maintenance of ecosystem health and the remaining water allocated to other water uses.

In terms of ecological values, the Stirling wetlands attracted the most comment. The wetlands are situated near the mouth of the Capel River. Fresh water flows down the Capel River, through the wetlands and into Geographe Bay. The Stirling wetlands flow into the Vasse-Wonnerup estuary which is a Ramsar site.

Several stakeholders described the wetlands as an unmanaged or under-managed natural resource. As the majority of the original Swan Coastal Plain wetlands have been lost to development, remaining wetlands such as the Stirling wetlands have increased in value.
Those concerned about the wetlands want a management plan developed including clear delineation of management responsibilities.

In 1904, a weir was installed at Mallokup Bridge near the mouth of the River to stop seawater from moving up the Capel River (GeoCatch 2004). Some of those interviewed indicated that saltwater intrusion is occurring despite the floodgates. The saltwater can negatively impact both the ecology (e.g. salt intolerant species become stressed) and consumptive users (e.g. salt water can harm crops). Ironically, the seawater intrusion has created one unanticipated auxiliary benefit. Local recreational anglers are now able to catch saltwater fish species “without the hassle of heading out to sea”.

There were expressions of concern about the management of the weir. The Water Corporation manages the weir and is in the process of replacing the structure due to its degraded state. The weir is raised in summer, to help keep water in the River for irrigation and to prevent salt water intrusion. It is then lowered during winter to allow the winter flows to flush the River. There are two pipes that lie in front of the weir; one pipe faces north and the other faces south. The pipes are operated by adjacent landowners and when opened supply water to the irrigation channels. The Water Corporation is not responsible for their operation and management.

There are a number of agricultural operations (e.g. dairying, orchards and viticulture) in close proximity to the wetland. Nutrient run-off from these properties is considered by some to be a threat to the wetlands. A buffer zone was suggested to protect the wetlands from nearby land uses.

GeoCatch along with the Water Corporation and local stakeholders have started developing a community-based group to progress management of the wetland system. A better understanding of the hydrology and general functioning of the system is an important first step in developing a management plan for the wetland. The predominately private-ownership of the wetlands is seen as a potential constraint to successful implementation of a management plan. Some landowners bought their land for the purpose of conservation, while other owners use the land for agricultural purposes when water levels recede.

As with most wetlands, mosquitoes are abundant in the Stirling wetlands. The Shire of Capel is concerned about the potential for mosquitoes to spread Ross River Virus and Barmah Forrest Virus. The Shire has prepared a Mosquito Management Strategy (Shire of Capel 2006) to reduce the public health risk of virus outbreaks. The Shire plans to spray larvicide on areas north and south of the Capel River mouth, including the Stirling wetlands. The Shire has the approval of the Commonwealth Department of Environment and Heritage to spray.

A contrary view put forward is that the mosquitoes do not pose a significant risk to human health and the spraying programme could negatively affect the wetland ecology. Using that assumption, the mosquitoes should be considered a natural part of a wetland ecosystem and not be sprayed merely to eliminate a nuisance to humans.
Other than the Stirling wetlands, there were few specific comments about the ecological values of the Capel River and its environs. There were some calls for more research on the water needs of the River’s aquatic ecosystems. A couple of stakeholders indicated that on-stream dams have a negative impact on the environment, with the passage of fish identified as a particular issue. One interviewee recommended that on-stream dams be designed to facilitate rather than impede the passage of fish and other aquatic species.

Several stakeholders highlighted the link between cultural values and ecological health. They noted that in order to maintain the River’s cultural values (e.g. sites of Aboriginal cultural significance), the health of the River’s ecology needs to be maintained.

### 3.2 Monitoring and Enforcement

Some of those interviewed expressed concern regarding the potential for on-stream farm dams to negatively impact downstream users and the local ecology. They want to see closer monitoring of water use to ensure that on-stream dam owners are not, as some suspected, exceeding their licensed allocations. Others believe there is no need for stricter enforcement of on-stream dam licenses.

Many stakeholders want the Department to monitor both the amount of consumptive use and stream flows. In several interviews, individuals suggested the use of threshold or trigger values to aid in the interpretation of monitoring data. These values would act as tripwires, indicating to licensees and the Department when water levels had declined sufficiently to pose an unacceptable risk to dependent ecosystems or downstream users. They would thereby provide an early warning system, enabling the use of intervention measures to prevent degradation of the water resource.

Some individuals believe that, too often, enforcement does not receive the emphasis it should as part of the resource management process. In the absence of licence enforcement, water users were unlikely to follow the ‘rules’ and may engage in undesirable behaviours such as exceeding their licensed allocations.

Stakeholders noted the relationship between monitoring and enforcement. Monitoring of conditions without the enforcement of regulations is not effective. As the licensing process continues for the Capel River, many of those interviewed commented that both monitoring and licence enforcement must play their roles in water resource management.

### 3.3 On-stream Farm Dams

The Whicher Water Resource Management Committee has called for local governments and the Department to work together to streamline and uniform the approvals processes for the construction and management of dams (Whicher Water Resource Management Committee 2004). A number of those interviewed supported this suggestion to develop a common dams policy, to ensure a consistent approach to dam construction and regulation.
However, there was not a common interpretation of what such a policy should entail. The Capel River catchment is located within the boundaries of two local government jurisdictions. Some envisaged a policy developed by the State (i.e. the Department) and the two local governments that would apply to all aspects of dam management, including construction and water allocation. Others felt the focus should be on establishing a common or standard dam approval process for use by both local governments.

Under the present system, in proclaimed areas, the local government is responsible for dam approvals that fall under the Town Planning Scheme. This typically pertains to how and where a dam is constructed on a private property. If a dam is on-stream, the owner requires a Department issued license to access and take water.

The Shire of Donnybrook-Balingup has prepared a draft dams policy. However, further progress on the policy has stalled due to divergent views within the Shire. While supportive of the concept of a common dams policy, the Shire of Capel does not want to be involved in approving dam proposals. The Shire believes this would unnecessarily add to the time involved in approving dam applications and that the Department should be solely responsible for the approval of applications. However, new dams could fall within the Shire’s purview if they are part of land use applications under the Town Planning Scheme (Shire of Capel 2005).

Some stakeholders are concerned about liability issues associated with dam construction (e.g. responsibility if a dam breaks). Currently, under common law, if a dam breaks the owner may be liable for the cost of damage.

Another issue mentioned was the visual impact of farm dams, especially when situated on small tributaries.

### 3.4 Water Use Efficiency

Many stakeholders view efficient use of water as a basic principle of good water resource management. Most comments on water use efficiency pertained to irrigation practices. Some commented that irrigators along the River have made improvements in water use efficiency. They pointed to individual irrigators who have shifted from flood irrigation to pivot systems as examples of improved practice.

Despite the improvements, some stakeholders called for further gains in water use efficiency. It was suggested that efficient water users be rewarded or acknowledged for their efforts. Some stakeholders believe the State Government could play a larger role in facilitating greater water use efficiency in the irrigation sector.

### 4.0 Water Quality

The majority of those interviewed did not raise water quality issues unless prompted to do so by the interviewer. The water quality issues noted included salinity, nutrients, acid sulfate soils and sedimentation via erosion. Among those who identified water quality problems,
many labelled them as relatively minor. Some stakeholders indicated they were unaware of any water quality problems.

For the majority of those interviewed, water quality appeared to be very much a secondary consideration. The volume of surface water in the system and its allocation to various uses were the primary resource management issues of concern.

4.1 Salinity

Several stakeholders indicated that salinity is an occasional problem. The occurrence of leaf drop (from fruit trees) at the end of one summer was cited as evidence of elevated salinity levels.

Typically, winter rains flush the River system removing salt build up. However, during summers, especially in low rainfall summers, salt deposits can accumulate and become a problem by the end of summer or early autumn (Ribbons of Blue 2004). In addition, salinity levels have increased due to run-off from cleared land, much of which is used for agriculture (SWCC 2005).

Several irrigators noted that salinity levels are typically not a problem for their crops, except in low rainfall summers. These irrigators have adjusted their irrigation techniques to accommodate the salt build up. For instance one irrigator cuts back the amount of water used once their trees are harvested.

4.2 Nutrients and Effluent

A number of stakeholders believe that local industrial effluent is causing water quality problems in the Capel River. The Challenge Dairy was identified as the most likely source of high-nutrient effluent. The Dairy has a Department of Environment and Conservation issued licence to discharge effluent, including the disposal of sludge on land and cooling water into the Capel River. Agricultural run-off was identified as a possible secondary source of the nutrients in the River.

One person recalled a 1994 incident when an inversion occurred and the River went black resulting in a fish kill. The Capel River Action Plan (White and Comer 1999) documents the occurrence of fill kills in 1994 and attributes them to algal blooms linked to excessive nutrients.

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9 An inversion occurs when surface water cools becoming denser than the warm water at the bottom of a river. As a result, the cooler surface water sinks to the bottom and the warmer bottom water rises to the surface bringing with it any sediment and organic ooze found at the bottom. This can cause a river to temporarily go black and release gases from the sediments causing fish kills. Inversions are particularly prevalent in rivers that have little or no flow in late summer (White and Comer 1999).
4.3 Acid Sulfate Soils

A few individuals indicated that several acidic sites existed near the River. The stakeholders were concerned that further disturbance of the River’s edge (e.g. stock in the riparian areas) would result in the activation of acid sulfate soils. Acidic run-off could reach the River and degrade the water quality.

When prompted to comment on acid sulfate soils, some stakeholders noted that community awareness of the issue has grown but could not identify any specific occurrences in the vicinity. They attributed the increase in public awareness to the efforts of the Capel Land Conservation District Committee and Landcare officers.

The Western Australian Planning Commission (Western Australian Planning Commission 2003) has mapped the potential for acid sulfate soils to form. The potential risk is determined based on the depth to pyrites in the soil (Map 2). Where pyrites are located closer to the surface, the risk is higher that acid sulfate soils may form. The mouth of the River has a high risk of acid sulfate soils forming. The riparian zone between the Capel townsite and Goodwood Road also has a high risk of acid sulfate soils forming. The north and south branches of the River were not part of the Western Australian Planning Commission mapping exercise.

Map 2 Acid sulfate soils along the Capel River (Western Australian Planning Commission 2003)
Acid Sulfate Soils

Acid sulfate soils are the common name given to soils containing iron sulfides, primarily in the form of pyrites. Under natural conditions acid sulfate soils are covered by water and vegetation and are safe. However, when the soils are exposed to the air, by draining, digging or lowering of the water levels, the soils are oxidized and sulphuric acid is produced.

Sometimes the soils can neutralize the acid, causing no impact other than to the soil. This is common when soils contain a high amount of limestone. When soils cannot neutralize the acid, the sulphuric acid can move out of the soil. As the acid moves it can dissolve metals and other chemicals (e.g. arsenic) in its path and carry these into groundwater and surface water.

The sulphuric acid which moves out of the soil can:
- Cause major damage to aquatic ecosystems (e.g. cause fish kills)
- Contaminate groundwater with arsenic and heavy metals
- Contaminate soils with heavy metals (e.g. reduce agricultural productivity)
- Damage infrastructure through corrosion of concrete and steel pipes.

One stakeholder was concerned that the Department does not have the legislative powers to ‘force’ the clean-up of acidic sites. However, the individual was encouraged by the Department’s efforts in addressing an acidic site near the Capel River. In April 2004, the Department (then the Department of Environment) funded the trial rehabilitation of an acid sulfate soil site approximately 200 metres from the River. The rehabilitation site was the first of its kind in Western Australia (Department of Environment 2004). Iron crusts were removed from the soil and the area was fenced and replanted with salt and acid tolerant rushes and sedges. The fencing helped to prevent further disturbance (e.g. stock). Monitoring occurred until early 2006. It revealed that site rehabilitation was successful with the majority of plants still thriving.

4.4 Erosion and Sedimentation

Several stakeholders were concerned about the increase in river sediment due to erosion. Sediment deposits can disrupt the river’s flow and result in the loss of native riparian vegetation if the streamflow moves from its natural course. Sediments can also fill pools and displace the macroinvertebrates and larger aquatic fauna dependent on the pools for their survival. A SWCC study (2005) found that 73% of the River is suffering from erosion. As discussed in Chapter 5, land use practices are contributing to erosion along the river.
Land Conservation District Committee Monitoring Program

In 1993, the Capel Land Conservation District Committee\textsuperscript{10} set-up two monitoring stations in response to concerns over water quality problems, in particular point source effluent (White and Comer 1999). One station was placed at Yate’s farm and the other at Railway Bridge. The programme monitored flow, conductivty (salinity), pH (acidity), turbidity (suspended solids) and nutrients (nitrogen and phosphorous). Samples were analysed between 1994 and 1998.

The data reflect the seasonal variation in flow. Low flow occurs during summer (January to May) and increases during winter (peaking in July). The conductivity data showed a direct correlation with flow. The River was brackish by the end of summer. The salinity would continue to increase until the first winter rain flushed the system. The pH data was within the acceptable range. Turbidity was typically low to moderate with increasing turbidity during heavy winter rains.

Monitoring occurs every four months at 20 locations along the River and tributaries. The monitoring records pH, salinity, nitrogen and phosphorous levels.

5.0 Land Use

5.1 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 2000b).

Numerous stakeholders commented that the management of riparian areas was inadequate. Much of the concern stems from the issue of what parties have or should have management responsibilities for these areas.

There were numerous references to weeds overrunning some portions of the riparian zone and displacing native species. The *Capel River Action Plan* (White and Comer 1999) also identified the proliferation of weeds along the Capel River as a management issue. Some stakeholders identified the Blackberry (*Rubus* sp.) as a weed of concern. Some commented on past weed management efforts of a limited scale but indicated that insufficient funding has hampered spraying efforts.

The riparian zone, from the mouth of the Capel River to Mallokup Bridge, is the management responsibility of the Water Corporation. Moving eastward, the majority of the riparian zone is vacant crown land. Areas on vacant crown land are not actively managed as the responsibility for their long-term management has yet to be assigned. Stakeholders identified several potential managers for these riparian areas. Some recommended the local government have the responsibility. Others suggested the Department of Environment and Conservation or the

\textsuperscript{10} The Land Conservation District Committee was incorporated in 1993 in response to local resident concerns about the health of the River and catchment.
Department of Water as the State Government agencies with the best knowledge to manage the land. Others indicated that local landholders are best placed to manage these areas, but with some direction from State Government officers.

Some stakeholders identified the need to prevent stock from accessing the River and riparian zone. The movement of stock can lead to a number of problems, including loss of riparian vegetation and bank slumping. Stock can trample and/or consume riparian vegetation, spread weeds, erode the foreshore (White and Comer 1999) and contribute to nutrient loads.

A number of stakeholders identified fencing as a key component of stock management. Fencing prevents stock from entering the river and from accessing riparian vegetation. Stakeholders indicated that some properties had been fenced but others still need fencing.

The Capel Land Conservation District Committee has worked with local landholders to fence properties with stock and raise awareness of the impact of stock on riparian areas. In the lower reaches of the River the majority of riverbank properties with stock are fenced (White and Comer 1999).

Despite the acknowledged value of fencing, several individuals indicated that fencing exacerbates the weed management problem by constraining access to riparian areas. It is difficult to manoeuvre spraying equipment around the fencing to access the riparian zone.

Privately owned land abuts much of the riparian zone. This limits the number of points where resource managers can access the riparian zones without crossing private property.

There is anecdotal evidence that, although the river is not stocked with trout, a small amount of recreational fishing occurs along the river and in private dams. The limited number of public access points restricts opportunities for recreational activities on and along the River (e.g. fishing, marroning, canoeing, swimming). The only public access points identified were Mallokup Bridge, a Capel Townsite bridge, and Goodwood Road.

### 5.2 Future Land Uses

Key land use plans for the catchment include the Greater Bunbury Region Scheme (Western Australian Planning Commission 2000a), the Shire of Capel District Planning Scheme No. 7 (Department for Planning and Infrastructure 2006) and the Shire of Donnybrook-Balingup

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11 Bank slumping is the collapse of a river bank into the river channel. It can occur when the bank becomes heavily saturated, often a result of lost of native deep-rooted vegetation. The best management is stock exclusion and fencing (White and Comer 1999).
Town Planning Scheme No. 4 (Department for Planning and Infrastructure 2005). These suggest little significant change in land use patterns in the catchment. The catchment will continue to be dominated by rural land uses in the lower portion with a mix of State forest and rural land uses in the upper portion (Western Australian Planning Commission 2000b).

Many stakeholders expect a significant increase in the population of the Capel River catchment. State population projections for the Shire to the year 2021 support this perception (Western Australian Planning Commission 2005). The Shire of Capel is projected to experience the greatest growth of any local government in the South West. Much of the growth is likely to occur near the coast. By 2021, the Shire’s population is expected to reach 16,200. The Capel Shire currently has 10,700 residents (Western Australian Planning Commission 2005).

An increase in residential/urban development is planned near the mouth of the River in the Peppermint Grove Beach area (Western Australian Planning Commission 2000a). The bulk of the catchment’s population growth is expected to occur in the Capel townsite. Local groundwater resources provide the drinking water for the Capel townsite and Peppermint Grove Beach.

The majority of the land on either side of the River is designated ‘strategic agricultural land’. Lands with this designation are of State and regional significance and protected for agricultural purposes under the Greater Bunbury Region Scheme. Thus, little change in land use is expected.

6.0 Public Involvement

6.1 Stakeholder Concerns

Stakeholders raised a number of issues with respect to public involvement in the Capel River planning process. Many highlighted the need to engage the public(s) as early as possible in the surface water planning process, not after decisions are made. Some had experienced planning efforts in which public involvement occurred too late in the process for meaningful community input. They do not want to see this repeated.

Other public involvement issues identified by stakeholders were:

- The importance of engaging with Aboriginal stakeholders including both traditional owners and local Aboriginal people
- Local information and local knowledge are under-utilised assets
- The importance of providing feedback to participants on how their inputs were used in decision-making. Some stakeholders commented that too often they received little in return for their inputs to planning efforts.
- Stakeholders value one-on-one communication with the Department and view this as the ideal when working with the local community. However, most recognised that
logistical constraints prevent the use of such an approach to reach the entire community. As an alternative, they recommended that the Department utilise the resources of stakeholder organisations to assist in making the community aware of key information and upcoming opportunities for involvement in the planning process.

In designing its public involvement strategy for the Capel River planning process, the Department of Water is encouraged to address the issues above.

6.2 Principles of Involvement

The Department should also keep the following public involvement principles in mind:

- All members of the community are potential stakeholders. Different sectors of the community will want varying degrees of involvement in the planning process. Some stakeholders may want regular updates on the progress of the planning process or will be happy knowing that others are actively engaged. Others, including the majority of those interviewed for the issue scoping study, are seeking a higher level of involvement. They want greater hands-on involvement in the planning process, beyond the provision of information. For this reason, a strategy typically includes a variety of activities tailored to meet the needs of different interests and levels or degrees of involvement in the planning process.

- A public involvement strategy must be realistic. The strategy should take into account the resources available, including monetary support, time and skilled personnel. 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.

- The issue scoping exercise forms one component of the Department’s public involvement strategy. It is important that the agency build on the momentum of this initial work with stakeholders. 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 look across the various stages of its timeline and seek out meaningful opportunities for dialogue and collaboration with stakeholder interests. The Department’s tentative timeline for the Capel River planning process is shown in Table 1.

- Any public involvement strategy should be periodically reviewed and modified to reflect changes in circumstances and new information. Ongoing monitoring allows adjustments to occur in a timely and effective fashion.

The issue scoping report is effectively a snapshot of a particular point in time. As additional information emerges over the course of the planning process and through interactions with stakeholders, both stakeholder and agency perspectives may change on
some issues and a number of new issues will likely emerge. Additional stakeholders may also make themselves known.

6.3 Options for Providing Information

Providing the community with information is an important component of any public involvement programme. Information needs to be presented in a timely fashion. It should also be prepared in a form (e.g. level of technical language, volume) that complements its intended audiences. The ‘local community’ is defined largely by the boundaries of the Capel River Catchment.

A wide range of information mechanisms can be used to effectively present information to the community. It is often desirable to use a combination of means. Information mechanisms could be put in place by the end of Stage 1 (Table 1) and function over the course of the 4-year water resource planning process. Options include:

- A Department 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. The Department’s already has a website and this could play an important role in communicating with the public regarding the Capel River planning process.

A separate page(s) could be designed for the surface water management projects being undertaken in the South West including the Capel River project. The content of the webpages might include:

- Information on the need for surface water management planning
- The steps in the planning process
- Background on each of the surface water sources highlighting key issues
- 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 a newsletter)
- A mechanism for readers to make comment (e.g. email, comment forms, discussion threads)
- Contact information for the study, including the name of an individual to contact. It is important that this person is knowledgeable about the project and thus able to answer most questions that members of the public may ask.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1</strong>&lt;sup&gt;12&lt;/sup&gt;</td>
<td>Issue scoping</td>
<td>Survey of consumptive use</td>
<td>Gather data on Aboriginal cultural/social values</td>
<td></td>
</tr>
<tr>
<td><strong>Stage 2</strong></td>
<td>Develop hydraulic model</td>
<td>Assess river hydrology</td>
<td>Assess riverine ecology</td>
<td>Develop flow model</td>
</tr>
<tr>
<td><strong>Stage 3</strong></td>
<td>Determine ecological water requirements</td>
<td>Develop alternatives to address water resource management issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage 4</strong></td>
<td>Evaluate alternative allocation scenarios (economic, social, ecological)</td>
<td>Determine water provisions and preferred resource management measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage 5</strong></td>
<td>Prepare draft water resource management plan</td>
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</tbody>
</table>

<sup>12</sup> A refined planning timeline will be developed by the DoW at the end of Stage 1.
An interactive website could both provide and gather information about the study. The website would require periodic updating to provide the most current information about the project. The interactive elements of the website such as discussion threads would require daily administration.

One of the key challenges in making a website effective is creating awareness of its existence. 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 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 for information about the Capel River project. Additional mechanisms (e.g. media) are needed to ensure the community is aware of the planning process, its outputs and the opportunities for their input.

**Media**

Local newspapers and radio provide inexpensive and effective means for reaching the broader community with information about the Capel River study. The Department could provide the local media outlets with media releases and/or feature articles at various stages of the study to keep the general community informed of outcomes, key choices, and the status of the study.

Local media outlets include the ABC Radio Country Hour, South West Times, the Bunbury Herald and the Capes Herald. Additional information sources useful in communicating with farmers and rural community members include the Farm Weekly and Countryman publications.

**Newsletter**

Newsletters can play an important role in keeping the community abreast of the status of a planning process. The Department could periodically publish a project newsletter at key milestones in the project. The initial newsletter might focus on the need for the planning process, the Stage 1 outcomes (Table 1) and provide contact details and a project timeline. It could also reflect on issues raised in the issue scoping exercise.

The first edition of the newsletter could be distributed extensively to households throughout the catchment (e.g. a letter box drop). Community members could then elect to continue receiving the newsletter by joining a mailing list. The newsletter might be published on a quarterly basis.

**Public involvement database**

A mailing list/database of interested parties is a valuable asset. Such a database would contain contact information for people and organisations interested in some level of involvement in the study even if it is simply being kept informed. Once registered on the
database, participants 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 can interact with project staff and provide input to the evaluation through comment sheets or questionnaires.

### 6.4 Opportunities by Stage

Each stage in the surface water planning process has the potential to generate opportunities for consultation and collaboration with stakeholder interests and the broader community.

The following describes the types of opportunities for involvement that could be possible at different stages in the planning process. These are not recommendations but simply examples for consideration.

The exact nature of the opportunities will become clearer as the study progresses and the products of the various planning stages become more defined. For this reason, the potential opportunities should be reviewed at each stage in the planning process.

**Option: Seminar on Stage 1 Findings**

The results of the Stage 1 activities could be presented to stakeholders and the general community through a public seminar and open house. In a two hour session the results of the following Stage 1 activities could be presented: the issue scoping exercise, the water use survey, and the Aboriginal cultural values (Table 1). It would also provide the opportunity to update the community on the status of the project and identify the next steps in the planning process, in particular licensing.

Some individuals like seminar style presentations but others would prefer a more informal atmosphere. For this reason, an open house could be associated with the seminar. This would also give an opportunity to those who cannot make the time of the seminar to speak with Department staff. The seminar component might be held on an afternoon followed by an evening open house session.
Option: Results of Stage 2 Studies

Near the end of Stage 2 is an opportunity to provide stakeholders and interested community members with the results of the studies on the River’s hydrology and ecology, and the projected future demand for consumptive use. This activity could take a number of forms, including a workshop, open house or seminar.

Option: Evaluating alternatives

Stages 3 and 4 involve the development and evaluation of alternative water allocation scenarios and resource management actions. These activities lend themselves well to hands-on evaluation exercises such as workshops. Web-based evaluation exercises might also be conducted.

6.5 Aboriginal Community Engagement

Aboriginal community members are key stakeholders in the Capel River catchment. The South West Aboriginal Land and Sea Council (SWALSC)\(^ {13} \) provides a useful first contact point when identifying the appropriate people to consult in the Aboriginal community.

It was noted during interviews that consultation with Aboriginal groups too often involves the community providing their opinions or local knowledge but receiving little of value in return. Follow-up was identified as a key part of the consultation process.

Consultations should involve Elders and local Aboriginal people. Traditional owners do not always reside on their land; several of interviewees noted the need to talk with local Aboriginal people as well as Traditional owners.

As with other stakeholders, local Aboriginal people should be invited to attend all public involvement opportunities related to the project. However, it may be necessary to provide additional opportunities for their input. Unless a good level of trust has already been established, their attendance at public meetings or similar events may be poor.

Separate meetings can provide a better forum for Aboriginal people to come together to talk about their river management concerns and reach a collective position. Such meetings are often lengthy (e.g. lasting all day) but this enables more in-depth discussion and time to reflect on the views presented at the meeting. Outdoor on-site meetings, especially if talking about specific areas of the River, are often preferred to indoor meetings.

Newspaper articles and advertisements were deemed insufficient to attract Aboriginal community participation. Ringing people directly and encouraging them to attend was recommended to achieve a better turn out.

\(^ {13} \) SWALASC represents traditional owners of the South West and assists in resolving Native Title claims. It is also working with traditional owners on the management of natural resources. This has included the creation of regional consultative working groups. The Capel River is part of the Region 3 working group.
The Department could consider retaining an individual to liaise with the Aboriginal community over the course of the planning process. Ideally this person would be Aboriginal and already have good working relationships within the local Aboriginal community. The resource person could provide guidance to the Department on preferred public engagement techniques, initiate contact with the community to plan public involvement activities and assist in removing barriers to Aboriginal participation in the planning process.

6.6 Collaboration

As the field of natural resource management has matured, acknowledgement of the value of collaborative relationships has grown. Collaborating with other parties can assist the resource manager in building strong working relationships and increasing credibility in the local community. Collaboration can help solve problems that fall under the responsibility of or require the cooperation of more than one organisation.

A number of interviewees commented on the perceived lack of collaboration between state agencies, particularly on issues of a multi-disciplinary nature. Stakeholders recognise the linkages between land use planning and water resource management issues. There were concerns that the relevant agencies are failing to join forces when tackling these multi-disciplinary issues. The future management of the riparian zones is a case in point. Collaboration among the state agencies (e.g. Department, Department for Planning and Infrastructure, Department of Agriculture and Food, Department of Environment and Conservation) and local governments in a riparian zone management workshop is an example of a possible multi-agency undertaking.

Both the Whicher Water Resource Management Committee and the newly formed Capel Water Users Group could play important roles in the public involvement programme. Both groups have a water resources management focus and are conduits to others in the community. Because they are local and their members are well known to the community, members of the public are just as if not more likely to contact representatives of these groups rather than approach the Department with their views or to seek information about surface water issues.

The Whicher Water Resource Management Committee includes representatives of a range of stakeholder interests in water resource management in the Whicher Region. It has already played valuable roles in the Department’s groundwater planning for the Blackwood and Busselton-Capel areas and the Water Corporation’s South West Yarragadee proposal.

The Department is encouraged to seek out opportunities to partner with these and other stakeholder groups (e.g. environment, industry, Aboriginal community, agriculture) on issues of shared interest. For instance, the Department might co-sponsor a particular public involvement event with one or more of the community-based groups in Table 2.
Table 2  Community-based groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>South West Catchments Council</td>
<td>Environment</td>
</tr>
<tr>
<td>Capel Land Conservation District Committee</td>
<td>Environment</td>
</tr>
<tr>
<td>GeoCatch</td>
<td>Environment</td>
</tr>
<tr>
<td>Ribbons of Blue</td>
<td>Environment and youth</td>
</tr>
<tr>
<td>Capel Water Users Group</td>
<td>Water users along the River</td>
</tr>
<tr>
<td>Whicher Water Resource Management Committee</td>
<td>General community</td>
</tr>
<tr>
<td>Western Australian Farmers Federation</td>
<td>Farming community</td>
</tr>
<tr>
<td>WA Fruit Growers Association</td>
<td>Farming community</td>
</tr>
<tr>
<td>Bunbury-Wellington Economic Alliance</td>
<td>Economic development</td>
</tr>
<tr>
<td>South West Aboriginal Land and Sea Council</td>
<td>Aboriginal community</td>
</tr>
</tbody>
</table>

The Department is encouraged to collaborate with recognised stakeholder groups throughout the planning process. Stakeholder groups can also provide a useful outreach mechanism to increase awareness in the local community of the surface water planning process and the opportunities for community input.

However, it is important that the Department not place undue reliance or burden on these groups with respect to broader public involvement. Stakeholders groups have their own mandates and need to maintain legitimacy with their constituents and not be co-opted by the Department’s planning process. In addition, most of these groups consist of volunteers or have limited resources. Thus, the expectations of what these groups can provide in terms of assisting the Department in reaching others in the community should remain realistic.
References

Department for Planning and Infrastructure. 2006. Shire of Capel - District Town Planning Scheme No. 7. Government of Western Australia.

Department for Planning and Infrastructure. 2005. Shire of Donnybrook-Balingup Town Planning Scheme No. 4. Government of Western Australia.


Appendix A: Background Document

Issue Scoping and Environmental Water Provisions for Surface Water Resources in the South West

Background

The lakes, wetlands and river systems of the South West Region provide a variety of uses or values including consumptive uses such as irrigated agriculture, public water supply, and mining; non-consumptive uses such as recreation and 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.

As the State agency responsible for water resource planning, the Department of Water (DoW) has commenced development of management plans for surface water resources in the South West. These plans will establish the sustainable water yield for an area and set limits on abstraction from surface water resources. The planning process 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 plans will guide the DoW’s approval of future licences to take and use water for purposes such as irrigation, industry, mining, and the servicing of rural and urban communities. This will prevent the resource from becoming over allocated and thereby protect individual entitlements and the economic viability of licensed users. The resource planning process is expected to take anywhere between 12 months and 4 years for the priority surface water resources in the south west. The amount of time will depend on planning priorities, demand pressures and the complexity of the issues.

Environmental Water Provisions

A key early step in the water resource management process is the determination of Environmental Water Provisions or EWPs. This is the amount of water needed to maintain ecological and non-consumptive uses (e.g., cultural, recreation, aesthetics) of the surface water resource. Having a EWP ensures that abstraction for consumptive uses does not result in unacceptable changes to ecosystems or non-consumptive uses dependent on the surface water resource. The amount of water available for consumptive use is equivalent to the water yield of the water resource minus the EWP.
The DoW has commenced a research and public consultation programme to provide the information needed to set EWPs and 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
- Ensure issues of concern to stakeholders that are reflected in the EWP determination
- 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 issue scoping exercises in the following catchments: the Brunswick River, Capel River, Willyabrup Brook, Cowaramup Brook, Margaret River, Chapman Brook and Lefroy Brook.

The objectives of the issues scoping studies are to:

- Gain an understanding of and document stakeholder issues and concerns about surface water resource management in the respective catchments with a particular focus on the development of EWPs
- Design a public involvement strategy as an integral component of subsequent stages in the EWP process.

The primary output will be an issues paper for each study catchment. This will discuss stakeholder issues and propose a community involvement strategy for subsequent stages in the EWP process.

Our efforts will initially focus on the Brunswick River and Capel River catchments. We are currently 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, 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.

Following a meeting with a stakeholder representative, he or she will receive a copy of the meeting notes for their review and comment. 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.

Each stakeholder representative will receive a copy of the issue scoping report we submit to the DoW.

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

Sabrina Genter
Project Manager
sgenter@bigpond.net.au

The Department of Water project contact is:
Robert Donohue
Programme Manager
Phone: 08 6364 6500.
robert.donohue@water.wa.gov.au
## Appendix B: Stakeholder Representatives

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td><strong>State Government</strong></td>
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</tr>
<tr>
<td>Dominique Van Gent</td>
<td>Department of Industry and Resources</td>
</tr>
<tr>
<td>Eric Wright</td>
<td>Department of Agriculture and Food</td>
</tr>
<tr>
<td>Richard Harper</td>
<td>Forest Products Commission</td>
</tr>
<tr>
<td>John McGrath</td>
<td>Forest Products Commission</td>
</tr>
<tr>
<td>Peter Buckley</td>
<td>Water Corporation</td>
</tr>
<tr>
<td>Richard Picket</td>
<td>Department of Environment</td>
</tr>
<tr>
<td>Allan Pastega</td>
<td>Department of Environment</td>
</tr>
<tr>
<td>Mathew Cuthbert</td>
<td>Department for Planning and Infrastructure</td>
</tr>
<tr>
<td>Bob Chandler</td>
<td>Department of Conservation and Land Management</td>
</tr>
<tr>
<td>Peter Hanly</td>
<td>Department of Conservation and Land Management</td>
</tr>
<tr>
<td>Roy Stone</td>
<td>Department of Water</td>
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<tr>
<td>Ed Hauk</td>
<td>Department of Water</td>
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<tr>
<td>Catherine Harrison</td>
<td>Department of Water</td>
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<tr>
<td>Ron Colman</td>
<td>Department of Water</td>
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<tr>
<td><strong>Local Government</strong></td>
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<tr>
<td>Rae McPherson</td>
<td>Shire of Capel</td>
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<tr>
<td>John Attwood</td>
<td>Shire of Donnybrook-Balingup</td>
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<tr>
<td><strong>Interest Groups</strong></td>
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<tr>
<td>Graeme Baesjou</td>
<td>Bunbury Wellington Economic Alliance</td>
</tr>
<tr>
<td>Joanna Hugues Dit-Ciles</td>
<td>South West Catchments Council</td>
</tr>
<tr>
<td>James Duggie</td>
<td>WWF - Australia</td>
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<tr>
<td>John Sherwood</td>
<td>SW Environment Centre</td>
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<tr>
<td>Tom Busher</td>
<td>South West Development Commission</td>
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<tr>
<td>Mike Bell</td>
<td>Dardanup Land Conservation District Committee</td>
</tr>
<tr>
<td>Eleanor Chaos</td>
<td>South West Aboriginal Land and Sea Council</td>
</tr>
<tr>
<td>Kane Moyle</td>
<td>Recfishwest [email comment]</td>
</tr>
<tr>
<td><strong>Landholders</strong></td>
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<tr>
<td>Steve Dilley</td>
<td>Landholder/Capel Water Users Group</td>
</tr>
<tr>
<td>Angelo Logiudice</td>
<td>Landholder/ Capel Water Users Group</td>
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<tr>
<td>John Fry</td>
<td>Landholder/ Capel Water Users Group</td>
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<tr>
<td>Neil Yates</td>
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<tr>
<td>Kim Tucker</td>
<td>Landholder</td>
</tr>
<tr>
<td>Greg Norton</td>
<td>Landholder/ WAFF/Whicher Water Resource Management Committee/Capel Water Users Group</td>
</tr>
</tbody>
</table>