

Final Report

Inquiry into Water Resource  
Management and Planning Charges

28 February 2011

Economic Regulation Authority

 WESTERN AUSTRALIA

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## Executive Summary

The Authority is pleased to present its final recommendations for its inquiry into water resource management and planning charges. The inquiry was undertaken in response to a request from the Treasurer in April 2009.

The inquiry is limited to those water resource management and planning activities that are carried out by the Department of Water (**Department**), the State's water resource management agency. The Authority recognises that there are many other agencies, industries and private parties that carry out water resource management activities in Western Australia, but these activities are outside the terms of reference for this inquiry.

This final report includes the Authority's recommended fees and charges to recover a proportion of the Department's water resource management and planning costs that have been assessed as being efficiently incurred on behalf of identifiable private parties.

## Principles for Cost Recovery

The Authority has consulted on and developed principles to guide the recovery of the costs of managing and planning water resources.

- A key principle recommended by the Authority is that the efficient costs of services provided by the Department should be recovered from those for whom the services are provided. Where these services are provided for identifiable private parties, the efficient costs of the services should be recovered from those parties.
- Public funding is appropriate where there is a component of public good to some activities, or where parties benefiting from the services cannot be identified.
- The benefits of cost recovery should outweigh its costs, and any charges levied should be practical to implement, transparent and equitable.

## Estimating Efficient Costs

The Authority has estimated that in 2008-09, the Department incurred a total of \$27.7 million of costs that could be confidently assessed as being efficiently incurred on behalf of the users of its services (out of the Department's total expenditure of \$108.0 million in 2008-09 – all of the Department's major activities are listed in Appendix D).

The Authority used the following process to establish the efficient costs incurred on behalf of private parties and that it would be appropriate to recover from those for whom the Department has provided the services.

- As a first step, the Authority estimated the total efficient costs of the Department's activities related to water resource management and planning (\$41.6 million, compared to the Department's estimate of \$56.0 million).
- Secondly, all or some of the activities and costs were allocated to the nine water resource management and planning services identified as suitable for cost recovery (although some activities and costs contribute to other services that are not considered in this inquiry). The estimated efficient cost of providing these services was \$34.3 million in 2008-09.

- The final step was to exclude from recovery any costs that are incurred on behalf of the wider community (public good component), which resulted in the total efficient costs to be recovered from identifiable private parties of \$27.7 million (compared with the Department’s estimate of \$39.8 million).

In estimating the efficient costs of the Department in carrying out the activities identified for cost recovery, the Authority engaged consultants to examine the accountability, effectiveness and efficiency of the Department. These consultant reports are available on the Authority’s website.

- Marsden Jacob Associates carried out an initial assessment of the Department’s efficiency and processes;
- Quantum Management Consulting & Assurance carried out a more detailed review of the processes used by the Department in carrying out its key water resource management and planning services;
- PricewaterhouseCoopers (PwC) reviewed the effectiveness and efficiency of the Department’s water resource management and planning activities and costs; and
- the Resource Economics Unit conducted a case study on the Warren-Donnelly catchment in the vicinity of Manjimup to determine if the Department is undertaking unnecessary work when determining allocation limits and water availability.

The Department disputed some of the analysis and findings of the PricewaterhouseCoopers report, and submitted that its efficiency in some activities, and efficient costs, are higher than those estimated by PwC. The Authority requested PwC to respond to the matters raised.<sup>1</sup> However, the Authority’s view is that the PwC report does not conclude that the Department is inefficient in its activities, but that only costs where sufficient evidence of efficiency has been provided should be deemed efficient for cost recovery purposes. The Authority has adopted a conservative approach to cost recovery to reduce the risk of recovering inefficient costs from private parties, and therefore does not consider that there is a need to revise the estimated total efficient costs.

**Table 1.1 Summary of Costs to be Recovered (2008-09)**

Department of Water Estimates (\$)			Authority’s Assessment (\$)		
Estimated Total Cost of Activities	Estimated Total Cost of Providing Services	Total Costs to be Recovered	Estimated Efficient Costs of Activities	Estimated Efficient Costs of Providing Services	Total Efficient Costs to be Recovered
55,984,845	46,277,288	39,755,591	41,598,390	34,336,619	27,676,569

## Recovering Efficient Costs from Customers

The efficient total costs (\$27.7 million) provide the basis for establishing service fees and charges. In developing charges to recover these costs, the Authority has sought to apply

<sup>1</sup> The Department’s concerns are listed in their submission on the Second Draft Report, published on the Authority’s website, along with the PwC response to the Department’s comments. See also Appendix E for a summary, and Section 3.4 for discussion.

the principles for cost recovery to ensure that any charges reflect the costs and levels of effort incurred by the Department in providing those services. The approach to setting the final fees and charges is summarised here.

### *Processing and Assessment of Applications for Water Licences and Permits*

The Authority assessed that the annual efficient cost incurred by the Department in processing and assessing applications (including applications for new licences, licence renewals, licence amendments, licence trades or transfers, licences to construct or alter wells and permits to interfere with beds or banks) is \$7.8 million per year. The Second Draft Report recommended a fee structure based on an allocation of these costs according to the amount of effort required by the Department for different licensing instruments (i.e. low risk, medium risk and high risk licences or renewals). These levels of effort were based on data collected by the Department from a three month time-keeping survey by licensing staff.

#### **New Licence Applications**

Comments in response to the Second Draft Report indicated that the draft proposed licence application fees were poorly cost reflective in some circumstances.

- Some applications, such as simple licence amendments, require minimal administrative effort by the Department, and the proposed fees appeared too high.
- The Department has indicated that the risk matrix that it uses to assign a risk rating to different types of licences could be refined to include more levels and to provide for some licences to be assigned to lower risk categories.
- Further, the Authority considers that the Department should collect more information on its licensing activities to be able to further disaggregate the different services provided and to develop a more detailed schedule of charges for future periods. Ideally, licence applicants should be charged according to the specific services they receive (e.g. administrative services, technical assessment, hydrogeological assessment of different degrees of complexity, different levels of operating strategies, site surveys, review and sign-off of their applications).

To improve the cost reflectivity of the initial charges, the Authority has therefore differentiated application fees for basic and complex applications, at each level of licence risk (low, medium or high). Basic applications are those that require only common administrative activities, a water resource impact assessment (required for all applications), review by a senior officer and sign-off. Complex applications are those that require additional services, such as a hydrological or hydrogeological survey, operating strategy, site survey, aerial survey, or dealing with application related enquiries. The Authority estimates that over two thirds of licence applications, including most of those for allocations of less than 50,000 kL per year, would fall into the “basic” category. The average charge across basic and complex charges is unchanged from the Second Draft Report.

#### **Licence Renewals**

The Authority’s view is that one area where the Department may be expending too much effort is in licence renewals. The majority of licence renewals are approved, as new licences are allocated by the Department to ensure as far as possible that the water is available to the user for as long as the user wants to take the water. The *Rights in Water and Irrigation Act 1914* requires the Department to treat licence renewals as if they were new licences. However, if the right amount of allocation planning is carried out, there

would be less of a need for case-by-case assessment of licence renewals, which would be more administrative in nature.

Under proposed new water resources legislation, currently being drafted by the Department and to be considered by the Government, it is likely that licences would be allocated in perpetuity, and licence renewals no longer needed. The costs that are currently associated with assessing licence renewals would then be incorporated into ongoing water allocation planning and management costs.

For these reasons, the Authority in its Second Draft Report allocated 60 per cent of the cost of licence renewals (those not associated with common administrative activities, around \$1.2 million) to the cost of allocation planning. The Authority considers that the remaining 40 per cent of costs is an appropriate level of cost recovery for the current licence renewals activities of the Department.

- The Authority recommends that, in the event that licence renewals are no longer required following the introduction of new legislation, licence holders who have paid for a licence renewal before the new legislation, and are liable for an annual charge (see below), be partially reimbursed in proportion to the number of years left on their renewed licence.

The structures of licence renewals and other licensing charges (amendment of a licence, trade or transfer of a licence, licences to construct or alter a well, or permits to interfere with beds or banks) are unchanged from the Second Draft Report. There was insufficient information provided by the Department to differentiate these charges into “basic” and “complex” charges.

### *Providing Water Allocations and Managing the Ongoing Use of Water*

The Authority identified the efficient costs of the Department of this activity (which involves water allocation planning; environmental water planning; collecting, assessing and managing information on water resources; and developing and enforcing water licensing policy) at \$9.8 million per year.

The Second Draft Report proposed that 70 per cent of these costs be recovered from allocation holders (as the majority of these services are provided for them, with the remainder a public good). The proposed charges were based on a uniform recovery of water licensing policy and enforcement costs across all licence holders (\$149 per year) and an annual charge reflecting the level of effort by the Department for different types of licence holders. The annual charge varied from \$97 per year for a licence in a C1 area (in which less than 30 per cent of available water resources have been allocated) to \$1,520 per year for a high risk licence in a C3 or C4 area (in which 70-100 per cent of available water resources have been allocated (C3) or water resources are over-allocated (C4)).

Responses to the Second Draft Report indicated that the proposed charges did not fully reflect the different levels of effort by the Department in its allocation planning and management activities for different licence holders.

- The Department indicated that the risk matrix used to assess the risk of different licences does not fully capture the disproportionate impact that very large licence holders (e.g. public water service providers or large mining companies) have on the level of allocation planning effort by the Department.

- Stakeholders also submitted that it was inequitable for small licence holders to pay the same annual charge as large licence holders (e.g. an irrigation cooperative, which holds a single water licence).

In addition, the Department has advised that, while it does have the heads of power under its current legislation to charge for allocation management and planning activities, this would require the establishment of a Water Resources Council to approve any statutory allocation plans. The Department therefore recommends that cost recovery of these activities be deferred until the introduction of the new water resources legislation (see Sections 2.3.5 and 4.3.5 for a full explanation).

In view of these submissions, the Authority recommends that the efficient costs of providing water allocations and managing the ongoing use of water not be recovered until the new legislation is in place. Once the new legislation is in place, the Authority recommends that:

- the development of the initial allocation plan for each area be funded by government (as some licence holders will already have had allocation plans developed and paid for by public funds);
- once the new legislation and statutory water allocation plans are in place, annual charges for water allocation planning and the ongoing management of water be set on a regional basis, for each water allocation plan area. Charges within each plan should reflect the impact of different licence holders on water resource management and planning activities (including the effects of the size of individual allocations as a share of the total catchment allocation, differences in risk between sub-catchments, and the costs incurred by the Department in the management of activities such as mine dewatering). Cost shares would need to be determined in consultation with the licence holders in that area; and
- over the next three years the Department collect information on its water planning and management activities that would allow for efficient costs to be recovered on a regional basis once statutory water allocation plans are in place.

The Department will still be incurring ongoing water allocation management costs for licence holders who are awaiting the finalisation of their water allocation plans. The Authority therefore recommends that interim annual charges be levied on these licence holders, once the new legislation is in place, until annual charges based on their allocation plans can be implemented. The interim charges would:

- recover the ongoing costs of water allocation management in areas that do not have final allocation plans;
- exclude the cost of allocation planning and environmental water planning (in line with the recommendation that the first allocation plan be publicly funded) and recover only ongoing water resource management costs;<sup>2</sup> and
- be differentiated according to the level of management effort by the Department in different regions.

The Authority has developed some indicative estimates for interim annual charges based on average costs across the State (see Table 4.10 in the report), but recommends that

<sup>2</sup> Specifically, the following activities carried out in the ongoing management of water allocations: surface water assessment; groundwater assessment, investigation and review; groundwater information collection; surface water information collection; and water information management.

these be reviewed once the new legislation is introduced and has consequently not published them as part of the table of recommended fees and charges.

Setting annual charges on a regional basis and taking into account volume impacts would result in annual charges that are significantly different from those proposed in the Second Draft Report. For example, if allocation size is a key cost driver, then large licence holders would pay more and small licence holders less. Licence holders in areas that require more intensive management and planning by the Department (such as those regions or sub-catchments where water resources are close to or above full allocation) would pay more than those where less management is needed. The impacts of any annual charges on individual licence holders' capacity to pay would need to be re-examined prior to their implementation.

Another issue raised in the inquiry was that of the treatment of the work carried out by large licence holders (such as mining companies and water service providers) as part of their licence applications. Some of these stakeholders maintain that the public benefit component of information provided to the Department through these applications (for example, through large hydrological (surface water) and hydrogeological (groundwater) studies carried out by the licence holders) should be acknowledged by the Department through a partial waiver of water resource management fees.

The Authority remains of the view that the work carried out by licence holders in meeting the requirements of their licence application is primarily for their private benefit and should not be publicly funded. However, if the licence holders are asked by the Department to carry out work additional to what is required for the purpose of their application, then this should be funded by the Department. The sharing of water resource management costs between licence holders and government for each plan area would be determined through consultation with licence holders.

### *Licensing of the Water Corporation for the Integrated Water Supply Scheme (IWSS)*

In line with the cost principles, the Authority recommends that the direct licensing costs for the Integrated Water Supply Scheme (**IWSS**) that are incurred efficiently each year by the Department be recovered from the Water Corporation through an annual charge. The Authority assessed that in 2008-09, the efficient cost of IWSS licensing was \$0.27 million, although this cost will vary from year to year. The Authority recommends that any cost recovery from the Water Corporation for IWSS licensing services be accompanied by defined service standards agreed between the Department and the Water Corporation.

### *Water Metering*

The Department runs a metering program for specific licence holders in two areas, the Gngangara Mound and the Carnarvon Groundwater Area. These licence holders are required as part of their licence conditions to monitor their water usage, and have meters that are owned, installed and maintained by the Department. The Authority recommends that the efficient costs incurred by the Department on behalf of these metered licence holders be recovered from those licence holders. Currently, the metering program is limited to these two groups of licence holders, although the metering program may be extended to other users as water resource impacts become critical in other areas.

Meetings with stakeholders indicated that there was some confusion over which licence holders would be subject to metering charges. It is important to note that the recommended charges would only apply to those licence holders who are metered as part of the Department's metering program, which currently only applies to certain licence



holders on the Gngangara Mound and in the Carnarvon Groundwater Area, and not to any other licence holders.

The efficient cost of the Department's water metering activities was assessed by the Authority at \$2.84 million per year in the Second Draft Report. The Authority recommended recovery of these costs from metered users through an upfront charge per meter to recover the costs of meter supply and installation for new customers (and existing customers when meters are replaced) and an annual charge per meter to recover the average costs of meter reading and maintenance for both existing and new customers. The proposed charges were based on the Department's metering costs for its Gngangara customers in 2008-09.

In response to the Second Draft Report, the Department submitted that the (annual) charge for meter maintenance and reading should be combined with the up-front installation charge, as meters are often cheaper to replace than to repair. Licence holders submitted that they would be able to provide some of the metering services themselves (such as meter reading, and in some cases the supply, installation and maintenance of meters).

The Authority has revised the metering charges to set an up-front fee of \$3,705 to recover the costs of meter provision, installation and maintenance; a fee of \$20 per meter reading (with an average of two meter readings per year); and an annual charge of \$90 to recover the costs of data management and administration.

- The \$90 annual charge for data management is much lower than the annual charge based on the 2008-09 estimated costs (which was \$835), as the Authority considers that the data management costs in that year, which included additional setup costs for the metering program, are likely to have been higher than the ongoing cost for that service. The Authority has based its revised estimate on 2010-11 budget data and meter numbers, which provide a better estimate of future efficient annual costs. The Authority also deducted 30 per cent from the cost of metering data services, as there is likely to be a public good element to this activity, as there is in the case of allocation planning activities.

The Authority expects that some metered users will choose to do their own meter reading and forego the meter reading charge. It is also possible that some metered users would be able to provide, install and maintain their own meters, subject to defined technical and service standards to be met by the users and occasional monitoring by the Department. A small audit fee (to be determined) would apply to any monitoring service provided by the Department.

### *Protecting Public Drinking Water Sources*

Protection of public drinking water sources by the Department involves activities such as the development and implementation of water source protection plans, investigation and assessment of groundwater sources, preparation of guidance notes, and acquisition and management of P1 land (protected for public drinking water supply). The Authority recommends that the efficient actual costs incurred by the Department on behalf of water service providers in protecting public drinking water sources be recovered from the service providers each year. In 2008-09, the efficient cost incurred by the Department in this activity was \$4.4 million.

The Authority recommends that the efficient costs of planning and implementation of water source protection plans be recovered from the public water service providers for whom these services are provided. Indicative charges (based on 2008-09 costs) were

\$1.58 million for the Water Corporation, \$27,000 for Aqwest and \$9,000 for Busselton Water in 2008-09, although these charges would vary from year to year, depending on the water source protection activities required.

The efficient costs of purchasing and managing P1 land would be recovered directly from the water services providers on a case-by-case basis. The efficient costs of P1 land management for the Water Corporation were estimated at \$56,000 in 2008-09.

The Department submitted that under the current legislation a Memorandum of Understanding (MOU) between the Department and water service providers would be required in order to enable the Department to recover the costs of public water source protection. The Authority recommends that such MOUs be established.

The Department also recommended that, for cash-flow reasons, annual charges for water source protection be recovered at the start of the year, accompanied by agreement with the water service providers on the services to be provided by the Department, with an end-of-year reconciliation based on actual expenditure by the Department. The Authority agrees with this approach.

### *Other Services Provided by the Department*

The Authority considered that there was a case for recovering costs for a number of other services, which are provided by the Department to identifiable private parties (including land developers, local councils, private businesses or individuals):

- the assessment of statutory referrals from other government agencies, including those relating to sub-division and development applications, clearing of sub-division conditions and planning proposals;
- advice on arterial drainage studies, carried out as part of urban water and drainage management;
- providing advice on floodplain management; and
- providing water information.

The Authority does not consider cost recovery for these activities to be feasible at this stage, for a number of reasons.

- Under the current legislation, the Department would require agreement with other government agencies (e.g. Western Australian Planning Commission or local councils) to levy charges for these services. These agencies are opposed to cost recovery for the services listed above.
- The cost and complexity of the Department's work in these activities is highly variable between projects, and there is insufficient information to determine unit costs for the services provided. Due to the variation in costs between projects, charging on an average cost basis would result in inequity for proponents requiring simple assessments.
- The costs to be recovered are relatively small, and the administrative cost of establishing and maintaining a charging scheme to recover costs, often from a wide range of different proponents, are likely to outweigh any benefits.
- The projects also vary in their mix of public and private benefit (e.g. some projects cover a wider area, and/or benefit parties who cannot be identified).

The Authority therefore recommends that cost recovery for these activities be reviewed following the introduction of new water resources legislation. In the meantime, the Department should continue to collect information on the costs of these activities.

With regard to the provision of water information, the water advice provided by the Department (e.g. to developers, real estate agents, local councils) is likely to be made available free of charge from the Bureau of Meteorology. In this event, the Department should cut back its water information provision service and refer any enquiries from private parties to the Bureau of Meteorology.

### *Summary of Efficient Costs to be Recovered*

Table 1.2 shows that of the \$27.7 million (per year) of efficient costs incurred by the Department that the Authority considers should be recovered from the private parties who use those services, the Authority has proposed a total of \$14.1 million per year for initial cost recovery.

Cost recovery for the remaining activities should be deferred until new water resources legislation is in place and the Department has collected more detailed information on the costs of providing the services under each activity.

**Table 1.2 Summary of Efficient Costs of Water Resource Management and Planning Costs Proposed for Initial Cost Recovery**

Water Resource Management and Planning Activity	Efficient Costs Incurred for Private Parties (per Year)*	Efficient Costs Proposed for Cost Recovery (per Year) Following 3-Year Phase-in*
Processing and assessment of applications for water licences and permits	\$7.8 million	\$7.8 million
Providing water allocations and managing the ongoing use of water	\$9.8 million	Cost recovery deferred until new legislation in place.
Licensing of the Water Corporation for the IWSS (indicative only)	\$0.3 million	\$0.3 million
Water metering	\$1.6 million	\$1.6 million
Protecting public drinking water sources (indicative only)	\$4.4 million	\$4.4 million
Providing advice on statutory referrals	\$1.7 million	Cost recovery deferred until new legislation in place and more information available to determine the costs of different services.
Guiding urban drainage and water management	\$1.3 million	
Providing advice on floodplain management	\$0.6 million	
Providing water information	\$0.2 million	No cost recovery as costs would not outweigh benefits.
<b>Total Efficient Costs to be Recovered</b>	<b>\$27.7 million</b>	<b>\$14.1 million</b>

\* Note: Figures are rounded to one decimal place.

## Recommended Charges

The Authority's recommended water resource management and planning charges are based on the recovery of the efficient costs as shown in Table 1.3 and in line with the principles discussed above for each activity.

The Authority recommends that the fees and charges be phased in over a three-year period and that another review be undertaken at that time. Fees are based on 2008-09 cost figures, but would be indexed for inflation at the time of implementation.

It is anticipated that the majority of licences with allocation volumes of less than 50,000 kL would be processed as "Basic" applications.

**Table 1.3 Authority's Recommended Fees and Charges Based on Recovery of 2008-09 Efficient Cost Estimates (Rounded Down to the Nearest \$5)**

Services	Year 1 – 25 Per Cent of Efficient Costs <sup>(a)</sup> Recovered (\$)	Year 2 – 50 Per Cent of Efficient Costs <sup>(a)</sup> Recovered (\$)	Year 3 – 100 Per Cent of Efficient Costs <sup>(a)</sup> Recovered (\$)
<b>A. Processing and assessment of applications for water licences and permits (per application)</b>			
<b><i>New 5C licence<sup>(b)</sup></i></b>			
Low risk			
Basic	415	835	1,670
Complex	1,210	2,425	4,850
Medium risk			
Basic	685	1,370	2,740
Complex	1,550	3,100	6,200
High risk			
Basic	710	1,425	2,850
Complex	1,320	2,645	5,290
<b><i>5C licence renewals<sup>(b)</sup></i></b>			
Low risk	205	410	825
Medium risk	260	525	1,055
High risk <sup>(c)</sup>	245	495	990
<b><i>Other licence application fees</i></b>			
Amendment of a licence	595	1,190	2,380
Trade or transfer of a licence	730	1,465	2,930
Licence to construct or alter a well	455	915	1,835
Permit to interfere with bed or banks	415	835	1,670
<b>B. Licensing of the Water Corporation for the IWSS – Indicative Only (per year)</b>	68,105	136,215	272,430

Continued...

Services	Year 1 – 25 Per Cent of Efficient Costs Recovered (\$)	Year 2 – 50 Per Cent of Efficient Costs Recovered (\$)	Year 3 – 100 Per Cent of Efficient Costs Recovered (\$)
<b>C. Water Metering</b>			
<i>Meter supply, installation and maintenance (per meter)</i>	925	1,850	3,705
<i>Meter reading (per meter reading)</i>	5	10	20
<i>Metering data services (per year)</i>	20	45	90 <sup>(d)</sup>
<b>D. Protecting public drinking water sources (annually)</b>			
<b><i>Planning and Implementation – Indicative</i></b>			
Water Corporation	394,650	789,300	1,578,600
Aqwest	6,755	13,515	27,030
Busselton Water	2,365	4,730	9,460
<b><i>P1 Land Management - Indicative</i></b>			
Water Corporation	13,965	27,930	55,865
<b><i>Purchase of P1 Land - Indicative</i></b>			
Service providers			Case-by-case

Notes:

- (a) Fees and charges are based on 2008-09 cost estimates, but would be indexed for inflation at the time of implementation. For example, charges for the 2011-12 financial year would be calculated by multiplying the charges in this table by the March 2011 quarter figure of the Perth Consumer Price Index (CPI), the latest available before the new financial year, and dividing by the 2008-09 average of the Perth CPI (166.6).
- (b) The Department assigns low, medium and high risk ratings to different licence and permit applications in accordance with its *Operational Policy No.3 – Principles and Guidelines for Assessing Water Licence and Permit Applications in Western Australia (2007)*. The risk categories are explained in Section 4.2.1 in this report. Within each risk category:
- **Basic applications** are those that require only common administrative activities, a water resource impact assessment (required for all applications), review by senior officer and sign-off;
  - **Complex applications** are those that require additional services, such as a hydrological or hydrogeological survey, operating strategy, site survey, aerial survey, or dealing with application related enquiries.
- (c) For high risk applications, applicants generally provide more documentation themselves than medium risk applicants, including hydrological or hydrogeological reports, which reduces the level of effort that is required by the Department when assessing licence applications.
- (d) The recovery of metering data service costs is based on 2010-11 budget data and meter numbers as the costs for 2008-09 included additional setup costs for the metering program and do not provide an appropriate basis for the future annual costs of this service.

## Equity of Charges

### Capacity to Pay

The Authority received considerable anecdotal evidence at the individual level regarding concerns about the capacity of some licence holders to pay the recommended charges, but received no firm data to justify these concerns.

The impacts on customers of the final recommended charges will be considerably less than those of the proposed charges in the Second Draft Report. This is because the Authority has recommended, for the introduction of cost recovery:

- that only \$14.1 million of efficient costs be recovered, out of the \$27.7 million total efficient costs incurred by the Department each year in activities identified by the Authority as suitable for cost recovery;
- differentiation between basic and complex licence applications, with the majority of licence applicants paying only the basic fees;
- the differentiation of metering charges into services that could be provided by the metered customers themselves, and a reduction in the charge for metering data services by the Department;
- the deferral of annual charges to recover the efficient costs of water allocation planning and management and the development of the first water allocation plan for each region to be publicly funded;
- deferring the recovery of the efficient costs of provision of advice on statutory referrals, arterial drainage studies and providing advice on floodplain management;
- the cost of providing water information be excluded from cost recovery; and
- phasing in the charges over three years.

However, while application fees for simple licences will be lower than the charges proposed in the Second Draft Report, application fees for complex licences will be higher.

Examples of what impact the recommended fees and charges will have on various licence holders is provided in Appendix I. As an example, once the charges have been fully phased in, a small horticulture business applying for an allocation volume of 18,500 kilolitres per year would generally pay a licence application fee of \$1,670. Once the new legislation is introduced, an annual charge of \$145 for water licensing policy and enforcement services would be payable, as well as annual charges based on the ongoing water allocation management costs for each statutory water allocation plan (once developed).

Another example is that of a small agricultural business, applying for an allocation volume of 72,000 kilolitres per year that takes groundwater from a source that is largely allocated. In this case, the application fee could be \$4,850, if additional surveys are needed for the application. The licence holder would pay an annual charge of \$145 per year for water licensing policy and enforcement services once the new legislation is in place, and an annual charge to recover a share of the ongoing water allocation management costs of the statutory water allocation plan for that area.

The view of the Authority is that where there are capacity-to-pay issues, these should not influence the design of water resource management charges. It is important that water resource management charges send clear signals to water users regarding the costs of water resource management in different areas.

A further matter raised during the inquiry was that of food security, with stakeholders from the agricultural sector submitting that the level of water resource management fees should be reduced to reflect the benefits to Western Australia of locally produced foods. The Authority's view is that, if food security is a Government priority, then any subsidy to encourage local produce should be through a separate mechanism, so that the costs of such policies are explicit, and not through a distortion of water resource management charges.

## Garden Bores

The issue of garden bores was raised in many submissions throughout the inquiry. Small licence holders in particular view it as inequitable that the 177,000 garden bores in Perth, which collectively use around 120 GL of groundwater per year, are not licensed and would not be subject to licence fees. The view is that urban garden bore owners impose water resource management costs that will not be recovered from the bore owners, while small licence holders in the agricultural or horticultural sector will be subject to fees.

The issue of the treatment of garden bores is a complex one, with previous water management policies aimed at encouraging bore ownership in order to reduce the impacts associated with additional scheme water use. However, bore use can also have negative environmental impacts in some sensitive areas.

The view of the Authority is that garden bore owners in Perth would ideally be charged for the costs that they cause to be incurred in monitoring and managing Perth's groundwater resources, if these costs exceed the cost of recovering them. However, the Authority does not consider that this is currently the case, and therefore does not recommend cost recovery at this stage.

However, the Department should continue to monitor the water resource management costs associated with garden bores, as it is likely that these costs will continue to increase. The Department should also establish a register of garden bores to facilitate cost recovery when there are net benefits of doing so.

## Implementation of Fees and Charges

The Authority recommends that those fees and charges that can be implemented immediately (i.e. for assessing and processing applications for licences and permits, licensing of the Water Corporation for the IWSS, water metering and protecting public drinking water sources) be phased in over three years.

It is important that any fees and charges that are implemented are accompanied by clear and meaningful service standards developed in consultation with stakeholders. The Authority supports the establishment of a water industry committee to represent licence holders and to work with the Department to develop performance indicators and service standards for the relevant water resource management activities.

The Authority also recommends that the fees and charges be independently reviewed in three years or when the new water resource management legislation is in place, whichever occurs first, and then every three years after that. Future reviews should take into account the Department's performance in the delivery of its services, and the scope for future efficiency gains.

The Authority recommends another review of annual charges for water allocation planning and management once the new legislation is in place. It is likely that the new legislation would result in more areas and activities being proclaimed so that there would be new licence holders that would be affected by annual charges who have not been consulted as part of this inquiry.

## Process and Consultation

In conducting this inquiry, the Authority published an Issues Paper, a Discussion Paper, two Draft Reports, held two public round tables to obtain feedback and met with individual stakeholders.

The Final Report for the inquiry was delivered to the Treasurer on 28 February 2011, following which the Treasurer, in accordance with the Act, has 28 days to table the report in Parliament.

The Authority wishes to thank those who provided submissions in response to the Issues Paper, Discussion Paper and the two Draft Reports. Those submissions, along with the discussions held at the round tables and in meetings with stakeholders, have helped to formulate the final recommendations.

## Summary of Final Recommendations

### **Principles for the Recovery of Water Resource Management and Planning Costs**

- 1) The Authority recommends that the following principles be applied to the recovery of water resource management and planning costs:
  - a) The costs of activities to address impacts, or potential impacts, arising from the use of water resources, be recovered from those who cause the costs to be incurred, if the parties can be identified.
  - b) If the parties who cause costs to be incurred cannot be identified, costs be recovered from public funds.
  - c) The costs of activities that produce outputs in the nature of public goods be borne by the public.
  - d) If costs are incurred on behalf of private parties for activities that also produce outputs in the nature of public goods, the costs be shared between the private parties and the public.
  - e) Only efficiently incurred costs be recovered from licence holders and other private parties.
  - f) Water licensing and the recovery of costs from licence holders be implemented in such a way that benefits exceed costs.
  - g) Any charges to licence holders be:
    - i) practical to implement;
    - ii) clear and transparent; and
    - iii) equitable, with licence holders in similar situations facing similar charges.

### **Allocation of Costs to Private and Public Users**

- 2) The allocation of costs between private and public users be determined for each individual water resource management and planning activity, based on who is causing the costs to be incurred.
- 3) The costs of water used as an input into commercial operations, including farming enterprises, should include the associated costs of water resource management and planning.



- 4) Work carried out by licence holders:
  - that is required for their licence applications be funded by the licence holders; and
  - that is additional to the requirements for their licence applications, and by agreement with the Department, be funded by the Department.
- 5) For public open spaces, water resource management and planning costs be recovered from public funds.

#### **Nexus between Costs and Charges**

- 6) Charges should reflect as closely as practicable the efficient costs incurred by the Department.
- 7) Where practicable, charges to licence holders should vary by region to reflect the costs of water resource management in each region.
- 8) The nature of services being provided and the service standards to be met should be clearly specified and agreed in consultation with customers.

#### **Ability to Pay for Different Users**

- 9) Ability to pay concerns should not influence the design of water resource management and planning charges.

#### **Domestic Garden Bores**

- 10) Garden bore owners in Perth should be charged for the costs that they cause to be incurred in monitoring and managing Perth's groundwater resources, if the administrative costs do not outweigh the costs to be recovered.
- 11) The Authority does not recommend charges for garden bores at this stage, as the administrative costs are likely to exceed the costs to be recovered. However, the Department should continue to monitor the water resource management costs associated with bore ownership, which are likely to increase as the number of bores grows. The Department should also establish a register of garden bores to facilitate future cost recovery.

#### **Allocation of Costs to Private Parties**

- 12) The Authority considers that the proportions of efficient costs that can be attributed to identifiable private parties is:
  - 100 per cent for the activities of:
    - assessing and processing licence and permit applications;
    - water licensing policy and enforcement;
    - licensing of the Water Corporation for the IWSS;
    - meter licensing (for customers on the Department metering program), except for 30 per cent of the costs of metering data services, which contribute to allocation planning in those areas;
    - protecting public drinking water sources; and
    - arterial drainage studies and floodplain management, where these are not part of strategic, regional or district planning;
  - 70 per cent for the activities of water allocation planning and management (i.e. water allocation planning, environmental water planning and supporting activities)

of surface water assessment, groundwater assessment, investigation and review, groundwater information collection and water information management);

- 85 per cent for statutory referrals; and
- 50 per cent for water information provision.

### **Accountability, Effectiveness and Efficiency in Water Resource Management and Planning Activities**

13) The Authority estimates that in 2008-09 the Department incurred a total of \$27.7 million of costs that is considered to be efficiently incurred on behalf of identifiable private parties and provides an appropriate basis for service fees and charges.

### **Processing and Assessment of Applications for Licences and Permits**

14) The upfront application fees for new 5C licences and 5C licence renewals be differentiated based on the proportion of effort applied to applications of different risk categories (low, medium or high).

15) The upfront application fees for new 5C licences further differentiate between:

- “basic” licences, which require only common administrative activities, a water resource impact assessment, review by a senior officer and sign-off; and
- “complex” licences, which require additional services, such as operating strategies, aerial surveys, site surveys and dealing with enquiries related to the application.

16) Other licence fees be based on the average efficient cost incurred by the Department in assessing and processing each type of instrument.

17) The Department continue to collect and analyse data to establish the levels of effort required to assess and process different types of licensing instruments, in order to develop a more disaggregated fee structure reflecting the costs of specific licensing activities and their complexity.

### **Providing Water Allocations and Managing the Ongoing Use of Water**

18) The efficient costs of water allocation planning and environmental water planning (including the efficient costs of their supporting activities) that can be attributed to identifiable private parties be recovered annually from these parties in a way that reflects the proportion of effort involved in undertaking the activities.

19) The cost of developing the initial water allocation plan in each area be funded by government.

20) Annual charges for providing water allocations and managing the ongoing use of water be set for each statutory water allocation plan:

- on the basis of the level of management effort required by the Department for different types of licence holders; and
- in consultation with the licence holders in the plan area.

21) The Department collect information on the costs and cost drivers of water allocation planning and the ongoing management of water use for each statutory water allocation plan, with a view to implementing charges to recover these costs once new legislation is introduced.

### **Licensing of Water Corporation in the IWSS**

- 22) The direct licensing costs for the Integrated Water Supply Scheme (IWSS) that are incurred each year by the Department be recovered from the Water Corporation through an annual charge.
- 23) The option of individual billing be extended to other large customers, provided administrative costs are not prohibitive.
- 24) Any separate billing arrangements be accompanied by a set of service standards agreed between the Department and customer.

### **Water Metering**

- 25) The costs incurred by the Department on behalf of metered customers (currently only particular licence holders on the Gnamangara Mound and in the Carnarvon Groundwater Area) be recovered from those customers, in the form of:
  - an up-front charge per meter to recover the costs of meter supply, installation and maintenance for new customers (and existing customers when meters are replaced);
  - a charge per meter reading to recover the costs of meter reading for existing and new customers; and
  - an annual charge per meter to recover the average costs of metering data services, such as data management and administration, where these are provided for the private benefit of the existing and new metered customers.
- 26) The metered customers on the Gnamangara Mound and in the Carnarvon Groundwater Area should have the option to read their own meters and forego the meter reading fee. A small audit fee (to be determined) would apply for occasional audits of meter readings by the Department.
- 27) The metered users should be able to provide, install and maintain their own meters, subject to defined technical and services standards to be met by the users. Where this is the case, the up-front charge per meter should not apply. A small audit fee (to be determined) would apply for occasional monitoring of metering standards by the Department.

### **Water Source Protection**

- 28) The estimated efficient costs incurred by the Department in providing water source protection services be recovered from the service providers (Water Corporation, Aqwest and Busselton Water) at the start of each financial year, with an adjustment at the end of the financial year to reflect any changes in the efficient actual costs that were incurred.

### **Cost Recovery for Other Services**

- 29) In principle, the efficient costs incurred by the Department in:
  - assessing statutory referrals in relation to sub-division and development applications, clearing of sub-division conditions and local planning proposals;
  - providing advice on arterial drainage studies as part of urban drainage planning;
  - providing advice on floodplain management; and
  - providing water advice
 be recovered from the parties who cause the costs to be incurred, if the administrative costs of charging for these services do not outweigh the revenue collected. In the

case of providing advice on floodplain management, or providing water advice, the costs of charging are likely to outweigh the benefits.

- 30) The Authority has not recommended charges for these services due to the lack of information available on the costs of the services provided, which are highly variable in their nature, complexity and effort involved.
- 31) The fees and charges for the other services listed above, and the powers available to the Department to levy the charges, be reviewed following the introduction of new water resources legislation.
- 32) The Department continue to collect information on the different services provided in these activities, taking into account the differences in complexity.
- 33) The efficient costs incurred by the Department in providing information for district planning proposals and regional planning proposals be publicly funded.
- 34) If the provision of water information becomes available for free from the Bureau of Meteorology, the Department should wind back its water information provision.

#### **Implementation of Fees and Charges**

- 35) Fees and charges for processing and assessment of applications for water licences and permits, licensing of the Water Corporation for the IWSS, water metering and protecting public drinking water sources be phased in over three years.

#### **Regulatory Arrangements and Delivery of Service Standards**

- 36) A water industry committee be established to represent licence holders and work with the Department to develop service standards and performance indicators for relevant water resource management and planning activities.
- 37) Water resource management and planning charges be independently set and reviewed when the new water resource management legislation is in place or in three years' time, whichever occurs sooner, and then every three years by the Authority.
  - The Department to record the actual annual costs incurred in providing the services that have been identified as suitable for immediate and future cost recovery in this report, to allow the Authority to review the historical costs incurred by the Department.

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# 1 Introduction

The Treasurer of Western Australia gave written notice to the Authority, on 2 April 2009, to undertake an inquiry into water resource management and planning charges in Western Australia.

The inquiry was referred to the Authority under section 32 of the *Economic Regulation Authority Act 2003 (Act)*, which provides for the Treasurer to refer to the Authority inquiries on matters related to regulated industries (gas, electricity, rail and water).

## 1.1 Terms of Reference

The Terms of Reference for the inquiry are provided in **Appendix A**.

In accordance with the Terms of Reference, the Authority is to provide the Government with a range of options and recommendations for:

- the recovery of the water resource planning and management expenses incurred by the Department of Water (**Department**); and
- the most appropriate regulatory arrangements for the setting of service standards for the water resource manager, the setting of the charges and the subsequent recovery of those charges from water users.

In considering the options, the Authority is to consider and develop findings on:

- the tasks or activities undertaken in the efficient management of the State's water resources by the Department, that would appropriately be recovered from water users;
- the most appropriate level of cost recovery from water users; and
- the most appropriate allocation of costs between licence holders and other water users.

The options recommended to the Government are to include:

- the implementation impacts for various types of users, including a sensitivity analysis on capacity to pay assumptions; and
- opportunities for implementation under both the existing legislative responsibilities of the Department as well as those specified by the National Water Initiative.

The Authority is also required to have regard to:

- the Government's social, economic and environmental policy objectives;
- the Government's obligations as a signatory to the National Water Initiative Intergovernmental Agreement; and
- any relevant pricing principles arising from the 1994 Council of Australian Governments water reform agreement and the National Water Initiative.

In undertaking the inquiry, the Authority recognises section 26 of the Act, which requires the Authority to have regard to:

- the need to promote regulatory outcomes that are in the public interest;
- the long-term interests of consumers in relation to the price, quality and reliability of goods and services provided in relevant markets;
- the need to encourage investment in relevant markets;
- the legitimate business interests of investors and service providers in relevant markets;
- the need to promote competitive and fair market conduct;
- the need to prevent abuse of monopoly or market power; and
- the need to promote transparent decision making processes that involve public consultation.

## 1.2 Background to the Inquiry

Attempts to introduce licence fees for water resource management and planning activities in Western Australia go back to 1991 when the Government endorsed, but subsequently withdrew, a proposal by the then Water Authority to introduce fees to licensees abstracting groundwater. In 2003, the State Water Strategy included a commitment to investigate the applicability of water resource management charges and the Department of Environment subsequently developed a proposal for the Minister for the Environment to introduce fees to recover 86 per cent of administration costs. However, the Government did not endorse the proposal. In 2007, the Government gazetted regulations to apply water administration licence fees to recover administration costs. These regulations were subsequently disallowed by Parliament and a revised fee structure was gazetted. However, the revised fee structure was also disallowed.

### 1.2.1 National Water Initiative

The Government has had an obligation to recover the costs, at least partially, of water resource management and planning activities since signing the Council of Australian Governments (**CoAG**) Water Reform Agreement in February 1994. An important principle of the 1994 agreement was to signal to users the costs associated with managing water resources and any environmental costs caused through extractive use.

The 1994 CoAG Agreement was followed in 2004 by the National Water Initiative (**NWI**). Western Australia became a signatory to the NWI in 2006. Section 67 of the NWI states:<sup>3</sup>

The States and Territories agree to bring into effect consistent approaches to pricing and attributing costs of water planning and management by 2006 involving:

- (i) the identification of all costs associated with water planning and management, including the costs of underpinning water markets such as the provision of registers, accounting and measurement frameworks and performance monitoring and benchmarking;
- (ii) the identification of the proportion of costs that can be attributed to water access entitlement holders consistent with the principles below;

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<sup>3</sup> Intergovernmental Agreement on a National Water Initiative, between the Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, 25 June 2004.

- (a) charges exclude activities undertaken for the Government (such as policy development and Ministerial or Parliamentary services);
- (b) charges are linked as closely as possible to the costs of activities or products.

Section 67 of the NWI also states:

The States and Territories agree to report publicly on cost recovery for water planning and management as part of annual reporting requirements, including:

- (i) the total cost of water planning and management; and
- (ii) the proportion of the total cost of water planning and management attributed to water access entitlement holders and the basis upon which this proportion is determined.

The National Water Commission (**NWC**) is responsible for auditing the implementation of the NWI, which involves monitoring each jurisdiction's progress in fulfilling their NWI commitments. Western Australia, along with other States and Territories, is responsible for implementing the NWI. In its second biennial report to CoAG in 2009 assessing progress on implementation of the NWI, the NWC noted that:

Progress in meeting NWI commitments for cost recovery for water planning and management for both surface and groundwater has been very limited. Progress in this area is long overdue in Queensland, Western Australia, Victoria, South Australia and the Northern Territory.<sup>4</sup>

With regard to Western Australia's progress on recovering the costs of water resource management and planning from water licence holders, the NWC supported the referral of this inquiry to the Authority, but noted that:

The Commission...is concerned about the continued delay in the introduction of these charges, and notes this as a failure of Western Australia to meet its NWI commitments in this area.<sup>5</sup>

The NWC established an inter-jurisdictional working group to develop a consistent set of pricing principles for the recovery of water resource management and planning costs.<sup>6</sup> The final NWI pricing principles were released on 23 April 2010. The pricing principles include a framework for classifying water resource management and planning activities as a guide to which costs should be wholly or partially recovered from water users. The final NWI pricing principles and the NWI framework for classifying water resource management and planning activities are provided in **Appendix B**.

## 1.2.2 Department of Water's Activities

The Department of Water is Western Australia's water resource management and planning agency. The Department assists the Minister for Water in administering 13 acts relating to the management and planning of the State's water resources (the legislative framework for the Department is set out in **Appendix C**). One of the main pieces of legislation administered by the Department is the *Rights in Water and Irrigation Act 1914*

<sup>4</sup> National Water Commission (2009), *Australian Water Reform 2009: Second Biennial Assessment of Progress in Implementation of the National Water Initiative*, p180.

<sup>5</sup> Ibid, p178.

<sup>6</sup> The Steering Group on Water Charges (**SGWC**), which reports to the NRM Ministers' NWI Committee, is progressing implementation of various parts of the best practice pricing element of the NWI, including the pricing of water resource management and planning charges. The SGWC is chaired by the Commission and consists of representatives of the NWI parties (State governments and the Australian Government) and economic regulators.

**(RiWI Act)**, which provides the legislative framework for the allocation and management of water resources.

The Department, in administering its legislation, carries out a wide range of water resource management and planning activities across the State (see **Appendix D** for a full list of activities). The Department employs around 660 full time equivalent staff and in 2008-09 its total costs were \$108 million. However, many of its activities are outside the Terms of Reference for this inquiry, as they are not suitable for cost recovery. Section 2 sets out the principles that have been applied by the Authority to identify the activities of the Department suitable for cost recovery, and Section 3.3.1 provides a description of these activities.

## 1.3 Review Process

As part of this inquiry, the Authority has:

- Published an Issues Paper on 30 April 2009 and called for submissions from stakeholder groups, industry, government and the general community on the matters in the Terms of Reference. Thirty two submissions were received in response to the Issues Paper.
- Published a Discussion Paper on 6 August 2009, which called for submissions from interested parties to provide feedback on the principles the Authority should use in developing the draft recommendations. Eight submissions were received in response to the Discussion Paper.
- Held a round table on 10 August 2009, where interested parties discussed issues of relevance to the inquiry.
- Published a Draft Report on 3 December 2009, which called for submissions from interested parties on the draft recommendations developed by the Authority. Fourteen submissions were received in response to the Draft Report. The Authority did not propose any indicative fees or charges to recover water resource management and planning costs in the Draft Report, as further information was needed from the Department. However, in that report the Authority:
  - developed draft principles to guide the recovery of the costs of managing and planning water resources;
  - developed a preferred approach for recovery of water resource management and planning costs which could be adopted by the Authority once the relevant information becomes available, subject to any concerns raised in submissions;
  - suggested that the Department develop more appropriate service standards and performance indicators to allow analysis over time and benchmarking with other relevant agencies. The development of service standards and performance indicators would ideally be undertaken in conjunction with stakeholders, such as through a water industry committee representing different stakeholder groups; and
  - suggested a preferred approach for the regulatory arrangements for water resource management and planning, where the Authority would have an ongoing role to undertake efficiency reviews of the Department and independently determine water resource management and planning charges, while a water industry committee would work with the Department to ensure

that service standards and performance measures are appropriate and achieved.

- Published a Second Draft Report on 2 November 2010, which focussed on the development of indicative fees and charges to recover the Department's water resource management and planning costs. In determining the appropriate level of cost recovery for the Department's water resource management and planning activities, from whom those costs should be recovered, and how they should be recovered, the Authority:
  - considered a submission provided by the Department in May 2010, which listed the activities that are suitable for cost recovery from private parties and provided the Department's estimates of the costs incurred in carrying out those activities;
  - reviewed the effectiveness with which the Department carries out its activities, and the Department's cost efficiency, to determine the efficient costs of carrying out the cost recoverable activities. This included consideration of input from PricewaterhouseCoopers, Quantum Management Consulting & Assurance and the Resource Economics Unit. The final reports prepared by these consultants are available on the Authority's website;
  - reviewed the efficient costs to assess whether there are public good elements, taking into account the Department's views on an appropriate private/public split in costs, and determined the proportion of efficient costs that it considers appropriate to be recovered from particular private parties;
  - developed charges to recover the efficient costs of the activities from the parties for which the costs have been incurred, taking into account that some activities may be carried out for a range of different services; and
  - examined the impacts of the charges on different parties, taking these impact assessments into account in developing its draft recommendations for charges.
- The Authority received 84 submissions in response to the Second Draft Report. The Authority has sought permission to publish from all those who made submissions, and those submissions for which permission has been provided have been published on the Authority's website (40 out of the 84 submissions).
- In developing the final recommendations in this report, the Authority:
  - held a round table on 26 November 2010, where interested parties discussed the indicative water resource management and planning fees and charges proposed in the Second Draft Report;
  - considered the views raised in submissions received in response to the Second Draft Report regarding the cost-reflectivity and equity of the proposed charges; and
  - met with stakeholders in Manjimup to discuss their view and concerns on the proposed charges.

The Authority has consulted with its Consumer Consultative Committee during the course of the inquiry.

In accordance with Section 45 of the *Economic Regulation Authority Act 2003*, the Authority has acted through the Chairman and members in conducting this inquiry.

The final report for the inquiry was delivered to the Treasurer on 28 February 2011. In accordance with the *Economic Regulation Authority Act 2003*, the Treasurer then has 28 days to table the final report in Parliament.

The Authority wishes to thank all those who provided submissions and information to the inquiry.

## 1.4 Structure of the Final Report

The structure of the final report is as follows.

- Section 2 sets out the principles that the Authority has developed, through consultation, and applied to the approach to costs recovery for different services provided by the Department. The principles are then applied to several key issues in this inquiry.
- Section 3 describes the process of investigation, consultation and assessment by the Authority to determine the level of efficient costs incurred by the Department in the activities identified as being suitable for cost recovery, and the proportion of those costs that can be attributed to private parties, as a basis for fees and charges.
- The next four sections describe how the proposed fees and charges have been determined, to recover the efficient costs identified in Section 3, for the activities of:
  - processing and assessing applications for licences and permits; water allocation planning and the ongoing management of water use; and licensing of the Water Corporation for the IWSS (Section 4);
  - water metering fees and charges, for those customers on the Gngangara Mound and the Carnarvon Groundwater Area who are part of the Department's metering program (Section 5);
  - the protection of public drinking water sources (Section 6); and
  - other services provided by the Department – advice on statutory referrals, arterial drainage studies and floodplain management, and provision of water information (Section 7).
- Section 8 examines the impact of the recommended fees and charges on different types of customers.
- Section 9 sets out the proposed implementation of fees and charges, including the arrangements for regulation of fees and charges and the development and delivery of service standards.



## 2 Principles for Cost Recovery

### 2.1 Background

The nature of water resources is that they are shared between water users and water dependent ecosystems and that the use of water by one party can impact on the amount and quality of water available to other users and water dependent ecosystems. For this reason, regulation (such as licensing) is required in many instances to manage and plan the use of water resources to ensure that impacts are acceptable.

In Western Australia, the responsibility for the allocation, management and planning of water resources lies with the Department. The costs of water resource management and planning activities undertaken by the Department are currently funded by the Western Australian Government (and ultimately the wider Western Australian community).

The Terms of Reference for this inquiry required the Authority to provide the Government with a range of options and recommendations for the recovery of the water resource management and planning expenses incurred by the Department. It is acknowledged that water resource management and planning expenses are incurred by other parties as well, but this inquiry does not extend to the recovery of the costs incurred by parties other than the Department.

In considering the options for cost recovery, the Authority was required to take into account and develop findings on:

- the tasks or activities undertaken in the efficient management of the State's water resources by the Department, that would appropriately be recovered from water users;
- the most appropriate level of cost recovery from water users; and
- the most appropriate allocation of costs between licence holders and other water users.

### 2.2 Principles for the Recovery of Water Resource Management and Planning Costs

There have been a number of attempts to introduce licence fees for water resource management and planning activities in Western Australia. Most recently, in 2007, two proposals to recover licence administration costs were unsuccessful. Some key concerns about these attempts to introduce licensing fees became evident during the Economics and Industry Standing Committee Inquiry into Water Licensing and Services, which was undertaken between October 2007 and February 2008. These concerns indicated that any proposal to introduce water resource management and planning charges would need to incorporate the following:

- transparency and clarity around how the charges were developed, what they were intended to cover, and how they were attributed to licence classes;
- confidence that the activities being charged for were being undertaken efficiently (for example, through an independent assessment of the efficiency of the Department's activities);
- users in similar circumstances be treated similarly; and

- the funds generated through charges be used for water resource management and planning activities, not for other activities of the State Government.

The Authority published an Issues Paper, a Discussion Paper and held a round table to obtain feedback on the principles that should be applied in recovering the costs of water resource management and planning. The consultation indicated general support for the principles referred to above and also support for the following principles:

- charges would be cost-reflective, which means that costs would be recovered from those who cause the costs to be incurred;
- charges would not be levied for activities that benefit the general community; and
- the extent of cost-reflective charges would be limited by the practicality and administrative costs associated with achieving cost-reflective charging.

On the basis of this consultation, the Authority developed a set of principles to be applied to the recovery of water resource management and planning costs (see Recommendation 1 below).

The principles recommended by the Authority are consistent with NWI pricing principles for recovering the costs of water planning and management activities that were released on 23 April 2010 (provided in **Appendix B**). The NWI pricing principles were developed by the Australian Government and State and Territory governments to provide guidelines for rural and urban pricing practices, and to assist jurisdictions to implement the water pricing commitments in a consistent way.

Submissions following the publication of the principles in the first Draft Report were supportive of the principles, although there were differences in views between stakeholders as to how the principles should be applied. These issues are discussed in the following section.

## Final Findings and Recommendations

### Principles for the Recovery of Water Resource Management and Planning Costs

- 1) The Authority recommends that the following principles be applied to the recovery of water resource management and planning costs:
  - a) The costs of activities to address impacts, or potential impacts, arising from the use of water resources, be recovered from those who cause the costs to be incurred, if the parties can be identified.
  - b) If the parties who cause costs to be incurred cannot be identified, costs be recovered from public funds.
  - c) The costs of activities that produce outputs in the nature of public goods be borne by the public.
  - d) If costs are incurred on behalf of private parties for activities that also produce outputs in the nature of public goods, the costs be shared between the private parties and the public.
  - e) Only efficiently incurred costs be recovered from licence holders and other private parties.
  - f) Water licensing and the recovery of costs from licence holders be implemented in such a way that benefits exceed costs.
  - g) Any charges to licence holders be:
    - i) practical to implement;
    - ii) clear and transparent; and
    - iii) equitable, with licence holders in similar situations facing similar charges.

## 2.3 Application of Principles to Water Resource Management and Planning Charges

During the various rounds of consultation undertaken by the Authority, stakeholders indicated that it is in the application of the principles to recover water resource management and planning costs that issues arise. Parties who made submissions differed in their views on:

- which costs should be paid for by licence holders and which should be paid for by the general community;
- how to establish a nexus between costs and charges;

- whether charges should be adjusted to recognise work undertaken by licence holders as part of their licence applications, if that work also benefits other or future users and/or the general community;
- who should require a licence, and therefore be subject to charges; and
- the ability of different users to pay for the proposed fees and charges, and how such capacity to pay concerns should be addressed.

### **2.3.1 Allocation of Costs to Private and Public Users**

The State's water resource management and planning regime has primarily been put in place to protect the community from the unintended consequences of unfettered water resource use (such as to the security of supply for existing water users, to environmental flows and to land use development that may compromise the quality of the water resource). It is appropriate, therefore, that as a general principle any costs efficiently incurred by the Department in preventing these unintended consequences are paid for by those who cause the costs to be incurred, where these parties can be identified (including water service providers, such as the Water Corporation and the water boards). At the same time, some water resource management and planning activities can also produce outputs in the nature of public goods, which benefit the wider community.

#### **2.3.1.1 Private/Public Split for Particular Water Resource Management and Planning Activities**

In the first Draft Report, the Authority provided a framework, based on the cost allocation principles, that can be used to assess whether costs should be recovered from private individuals or groups, or the general public (**Box 1**).

**Box 1. Framework for Guiding Allocation of Costs Between Private and Public Users**

- Some water resource management and planning activities produce outputs in the nature of public goods. The nature of public goods is that it is not possible to exclude individuals from the consumption of these goods, and the use of those goods by one person does not prevent others from using them. Examples include information on the State's water resources provided by the Department that is of general benefit to the State. The costs of these activities should be recovered from the public.
- Other activities are carried out by the Department to address impacts, or potential impacts, associated with the use of water resources. Regulation, such as licensing, is needed to ensure that the use of water resources complies with the standards (such as environmental and health standards) demanded by society. Costs are incurred by the Department, or by private parties, to ensure those standards are met.
  - For costs incurred by the Department, where it is possible to identify those who caused the costs to be incurred, the costs should be recovered from these parties. Costs may be caused by individuals (for example assessment and monitoring of individual licences) or groups (for example allocation planning for groups of licence holders).
  - If those who caused the costs to be incurred cannot be identified, the costs should be recovered from public funds.
  - Some activities may be carried out to address impacts resulting from past actions, activities, or government decisions. These are legacy costs, and should be recovered from public funds.
  - Some activities may be to address impacts, but may also have public good elements. The costs of these activities should be shared between those who cause the costs to be incurred, and the public. For example, allocation plans developed primarily to establish allocation limits for licence holders, may also benefit the wider community through the better understanding of water resources, which can be applied outside the allocation plan area.
  - If the standards applied to water use activities change (e.g. due to changes in community expectations, climate, technology), the costs of meeting the new standards should be borne by those who are required to comply with them. This is consistent with other regulatory frameworks (e.g. in water, electricity or gas supply, where the costs of meeting higher service standards are borne by the service provider and passed on to the consumer through tariffs). However, changes to service standards would need to be justified on cost/benefit grounds, and based on the community's willingness to pay for the changes to service standards.

The Authority identified the following activities as being water resource management and planning services that are provided exclusively for identifiable private parties, with the efficient costs incurred by the Department potentially recoverable from those parties:

- the processing and assessment of applications for licences or permits for licence or permit applicants;
- the development and enforcement of water licensing policy for licence holders;
- the licensing of the Water Corporation for the Integrated Water Supply Scheme (IWSS);
- water metering services for those water users required to have Department-owned meters (including the purchase, installation, maintenance and reading of meters);
- the protection of public drinking water supplies for public drinking water suppliers;

- the provision of advice to the Western Australian Planning Commission (**WAPC**) and local governments on statutory referrals (specific planning and development proposals which have water management implications);
- the provision of advice on arterial drainage studies for planning agencies and developers as part of urban water management activities; and
- the provision of advice on floodplain management, mostly to local governments.

The Authority also identified some activities that have a public good component, so that some proportion of these costs should be recovered from the public. These activities include:

- the provision of water allocations and management of the ongoing use of water (including the activities of allocation planning, environmental water planning, groundwater and surface water assessment, and water information collection and management). The Authority considered that the majority of these services are carried out for licence holders, and that 70 per cent of the costs should be recovered from licence holders, in the form of an annual charge;
- some activities involved in guiding urban drainage and water management (drainage and water management planning and groundwater assessment, investigation and review). The Authority considered that these activities were of a high level, regional or strategic nature and should be recovered from public funds; and
- the provision of water information, where only half of the information requests are from the private sector.

## Submissions

Submissions in response to the Second Draft Report raised various comments regarding the private and public good components of particular activities.

### **Water allocation planning**

The Department submitted that many of its activities (such as licence allocation and monitoring, water source protection, metering and allocation planning) are carried out primarily for the private benefit of licence holders, in order to provide them with secure water entitlements. The Department, in response to the Second Draft Report, supported the Authority's recommendation that 70 per cent of water allocation planning and management costs be recovered through an annual charge to licence holders.

- However, many submissions proposed that most of the water resource management and planning activities that are undertaken by the Department are public goods that should be recovered from public funds, not through charges on licence holders.
- The Manjimup and Pemberton Landowners (Landowners) submitted that in general, water is "owned by the Crown", it is "vital to life" and that "management of water resources should be a core function of government" as reasons for claiming that the Government should fund resource management and planning from public funds.<sup>7</sup> The Landowners maintain that 100 per cent of water allocation planning

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<sup>7</sup> Manjimup and Pemberton Landowners submission on the Issues Paper.

and management is for the public good and should be paid for out of consolidated funds.<sup>8</sup>

- Harvey Water submitted that the actual water users in agriculture are those who consume the final food product, not the farmers. They claimed that taxation is therefore an appropriate mechanism to recover the costs of water resource management and planning as they apply to agriculture.<sup>9</sup>
- WAFarmers submitted that the need to ensure security of food supply should be factored into this analysis, which implies that WAFarmers considers that water used for agriculture has public good characteristics.<sup>10</sup>
- The Pastoralists and Graziers Association of WA submitted that all policy and planning costs, and all costs associated with environmental water management and provision, should be funded by government.
- The Shire of Nannup submitted that the beneficiaries of environmental planning and management services are the general public.<sup>11</sup>

### ***Protection of public drinking water supplies***

- Rio Tinto submitted that costs associated with the protection of public drinking water sources are in the nature of public goods and should be funded out of consolidated revenue.

### ***Statutory referrals, urban drainage and water management, floodplain management***

- The Western Australian Local Government Association (**WALGA**) submitted that the services provided by the Department for sub-division and development applications, clearance of sub-division conditions, and local planning proposals should be seen as public goods and funded accordingly.
- The Department of Planning and Western Australian Planning Commission (WAPC) submitted that the functions of the Department of Water that support integrated land and water planning do not fall within the categories of water services for which costs should be recovered. The Department of Planning submitted that:
  - cost recovery for activities associated with statutory referrals is inconsistent with NWI principles for the recovery of water resource management and planning costs, which do not apply to statutory referrals relating to land use planning;
  - the purpose of the statutory referral process is to ensure that planning proposals comply with State policies such as the Better Urban Water Management framework for integration of land and water planning; and
  - urban water management activities do not meet the criteria of private goods.
- The Shire of Nannup submitted that it is counter-productive to set charges for cross-agency co-operation in meeting state planning objectives.

<sup>8</sup> Manjimup and Pemberton Landowners submission on the Second Draft Report.

<sup>9</sup> Harvey Water submission on the Issues Paper.

<sup>10</sup> Western Australian Farmers Federation submission on the Discussion Paper.

<sup>11</sup> Shire of Nannup submission on the Second Draft Report.

- The Water Corporation and WALGA submitted that drainage management activities are in the nature of a public good and should be funded by consolidated revenue.
- WALGA submitted that floodplain management activities are in the nature of public goods.

### *Authority Assessment*

The Authority's assessment of the appropriate allocation of costs between private parties and the public for each activity has been based on the consideration of *who is causing the costs to be incurred*.

#### **Water allocation planning**

The Authority has considered all the views from submissions, and those raised in public forums and meetings with stakeholders, regarding the public benefit component of activities carried out by the Department in water allocation planning and management. The view that many of the ongoing activities of the Department, such as those carried out when developing water allocation plans for different regions, are in the nature of public goods is widely held, particularly in the agricultural and horticultural sectors. It is also the case that allocation plans are developed in accordance with standards that are set by the broader community (e.g. environmental, health, social).

However, there are strong arguments for considering the Department's work in relation to the preparation of allocation plans, including environmental water planning, to be primarily for the benefit of the holders of water entitlements:

- Allocation planning activities, including the assessment of environmental water requirements and impacts, and the measurement and monitoring of water resources, are carried out mainly due to the presence of licensed water users, and in order to ensure that those licence holders are provided with secure water entitlements now and in the future. Thus, the majority of these costs are incurred due to, and on behalf of, licence holders, and would not be incurred if licence holders were not present.
- There are some activities that would be carried out by the Department if licence holders were not present. These include water resource management and planning activities on behalf of non-licensed users (allocation plans include estimates of unlicensed water use), or for users of water-dependent recreational activities, or for the reservation of water for future users. However, the relative proportion of these activities is small, compared with licensed water use.

It is possible that there are some differences between regions in the split between private and public goods. For example, in some water management areas, available water resources may be fully allocated – or even over-allocated – to licensed users (private parties). However, in other water management areas, a large proportion of available water resources may be allocated to meet the needs of unlicensed users, or recreational users, or to address environmental impacts originating in past land-use decisions (e.g. salinity management). These differences between regions support the case for determining allocation planning costs and any associated cost recovery mechanisms on a regional basis.

Another view in submissions is that the benefits of agricultural production to society, in terms of ensuring food security and the diversity of food production in Western Australia, justify the public funding of water resource management and planning services. However,



the Authority considers that it is appropriate for all licence holders to pay for the costs of services carried out to provide them with water entitlements.

- Agricultural and horticultural businesses are commercial enterprises and the provision of secure water entitlements involves costs while improving the profitability of those enterprises. It is therefore reasonable to treat the costs associated with obtaining those water rights (including the costs of water resource management and planning) in the same way as any other costs incurred by the business in undertaking its commercial activity.
- The cost of providing secure water entitlements should be reflected in the prices paid by consumers. In this way, the choices made by consumers and by producers will result in a better allocation of water resources over the long term. For example, if the high costs associated with providing secure water entitlements in regions where water resources are almost fully allocated (or over-allocated) are reflected in the prices of outputs, this should have the effect in the long term of shifting production in those areas towards activities that are less water-intensive.

If it is the case that food security is a Government priority, then any subsidy to encourage local produce, if one is required, should be through a separate mechanism, so that the costs of such policies can be clearly identified, and not through a distortion of water resource management charges.

### ***Protection of public drinking water supplies***

It is appropriate to recover any costs incurred by the Department in the protection of public drinking water supplies from the public drinking water suppliers for whom those services are provided. The recipients of these services are identifiable private parties, who can then pass these costs on to their customers (who are ultimately the users of the Department's services). The submission by Rio Tinto indicates that there may be other public drinking water suppliers apart from the Water Corporation, Aqwest and Busselton Water (e.g. mining companies) for whom the Department provides such services. In these cases, those companies could also be charged directly by the Department.

### ***Statutory referrals, urban drainage and water management, floodplain management***

The Department carries out a range of activities in which it provides advice to developers, development planning agencies, local government and private parties on the management of water resources related to land development, urban drainage and water management, and floodplain management. In many cases, the party to which the advice is provided is clearly identifiable, so recovery of costs from that party would be consistent with the principles.

However, as indicated by the submissions, the public good component of these activities is highly variable, as they are often carried out as part of broader or regional development policies and plans. They are also highly variable in their complexity and cost and the Department has been unable to identify a standard set of services provided or the unit costs for such services.

While the principle holds that the costs of services provided for private parties should be recovered from those parties, cost recovery for these activities is likely to be complex, due to the difficulty in defining the private goods that are being provided, and the number of parties from which costs would need to be recovered.

Regarding the point raised by the Department of Planning, that cost recovery for water resource management costs associated with land use planning is not consistent with the

NWI principles for cost recovery, which relate to activities that involve the consumptive use of water, the Authority notes that it has been guided by the principles set out in Recommendation 1 in developing recommended fees and charges. In applying these principles, the activities for which it is appropriate to recover costs include, but are not limited to, those covered by the NWI principles and relating to consumptive use of water. If water resource management and planning costs are being incurred on behalf of identifiable private parties, and there are net benefits to recovering the costs of those activities from those parties, then cost recovery is recommended.

### *2.3.1.2 Recognising the Contribution of Licence Holders to Water Resource Management and Planning Activities*

A further matter raised in the inquiry was in the treatment of the costs incurred by large licence holders in the provision of information to the Department as part of their licence applications. Some of the information provided by licence holders could potentially provide wider benefits to parties other than the licence applicant (e.g. other users, future users or the wider community). If so, there is a case for recognising the public good elements of such information.

In the first Draft Report, the Authority suggested that the Department could partially reimburse licence holders for work carried out that contributes significantly to the development of water allocation plans or broader water resource assessment processes. This reimbursement could be in the form of a waiver of some or the entire allocation planning component of the annual charge for eligible applicants.

However, the Department submitted that most of the work carried out by licence holders is for their private benefit and that very little of the information obtained from licence applicants is utilised in the development of allocation plans. The Authority accepted this view, and in the Second Draft Report recommended that licence holders not be reimbursed for information provided to the Department as part of their licence applications. The recommended charges did, however, include lower licence application and renewal fees for high risk licences, relative to medium risk licences, to reflect the lower level of effort incurred by the Department for high risk licence applicants (often large licence holders, such as mining companies or public water suppliers, who carry out many of their own hydrogeological and hydrological studies as part of their licence applications).

### *Submissions*

A number of submissions were received throughout the inquiry which maintained that there were public benefits to the work carried out by licence holders.

- In response to the First Draft Report, several submissions noted the extensive contribution of other parties to water resource management and planning in Western Australia and submitted that any charges should exclude the costs of these activities (WALGA, Chamber of Minerals and Energy (CME), Rio Tinto). WALGA provided an extensive list of water resource management activities undertaken by local governments in relation to public open spaces, drainage, urban water management and planning, subdivision development and metering, and expressed concern that charges would be imposed for activities that are collaborative in nature. The CME, Rio Tinto and the Water Corporation supported the principle that licence holders who carry out work that contributes to allocation plans should be entitled to a reduction in their licence fees.

- In response to the Second Draft Report, a number of stakeholders disagreed with the recommendation that licence holders should not be reimbursed for the costs of information provided as part of their licence applications.
  - The Water Corporation submitted several examples in which it has carried out significant modelling and hydrological research that has benefited the Department and other users by providing substantial information on water sources (e.g. the south west Yarragadee aquifer and in the Lower Great Southern and Perth regions). The Corporation submitted that in such cases there should be scope for a waiver of fees or charges on a case-by-case basis, through individual service level agreements.
  - WALGA submitted that activities undertaken by local government, including the monitoring of water extractions, water tables, salinity and water quality, and the provision of direct recharge through drainage systems, are of a wider public benefit, and should be recognised through reduced licence fees.
  - Rio Tinto submitted that licence holders who provide information that benefits other users or the wider community (for example, first users in isolated catchments) should be credited for this information against their charges. Rio Tinto does not consider that the slightly lower annual charge for high risk licences adequately reflects the value of the information.
  - The CME also supported the reimbursement of licence holders for information that they provide that is of benefit to other users, future users and the wider community.
  - The Department of Agriculture and Food WA submitted that the information provided by licence holders should be developed by the Department into better quality information on water resources that can be made publicly available to current users, future users and the general community.
  - The Pastoralists and Graziers Association of WA (PGA) submitted that the Authority should reconsider the reimbursement of licence holders. The PGA's view is that information provided by licence holders, such as water availability, suitability and flows, should be seen as intellectual property and would reduce the costs to the Department in assessing overall water availability.

### *Authority Assessment*

Following consideration of the submissions, as well as the cost recovery principles, the view of the Authority is that any work carried out by licence holders that is a necessary requirement for the approval of their licence application is carried out in the private interests of the licence holder and should not be subsidised by public funds.

There is scope, however, for negotiation between the Department and large customers, in cases where large customers carry out work in addition to what is required for the approval of their licence applications. In some cases it may be cost-effective for the Department to outsource some of its investigative work to large customers, who may have the appropriate expertise and equipment in place for such work. In this case, if the work carried out is over and above what is needed for the licence application, and subject to an agreed work program with the Department, the work should be funded by the Department.

### 2.3.1.3 *Public Open Spaces*

Another area where the distinction between private and public goods was raised was in the treatment of water resource management and planning costs associated with public open spaces.

In the first Draft Report, the Authority suggested that there could be a case for sharing the costs of water resource management of public open spaces between public and private beneficiaries, and asked for comments.

Submissions that addressed this issue were of the view that parks and public open spaces are primarily in the nature of public goods and their costs should be recovered from public funds (Western Australian Local Government Association (WALGA), Department of Water, Water Corporation). The Department noted the impracticability of recovering such costs from local councils.

The Water Corporation questioned the merits of charging organisations that predominantly service communities, citing “environmental flows, scheme water services, public open spaces and many farming and agricultural activities”. The Corporation submitted that there is no basis, on efficiency or equity grounds, for recovering some of the costs from private parties (the local rate payers).

The Authority agrees that to the extent that there is a private cost element to water resource management and planning activities for local parks, the complexity and cost of recovering these costs would outweigh any benefits. The Authority therefore recommends that the water resource management and planning costs associated with public open spaces be recovered from public funds, as the costs of recovering costs from private beneficiaries would outweigh the benefits of cost recovery.

#### **Allocation of Costs to Private and Public Users**

- 2) The allocation of costs between private and public users be determined for each individual water resource management and planning activity, based on who is causing the costs to be incurred.
- 3) The costs of water used as an input into commercial operations, including farming enterprises, should include the associated costs of water resource management and planning.
- 4) Work carried out by licence holders:
  - that is required for their licence applications be funded by the licence holders; and
  - that is additional to the requirements for their licence applications, and by agreement with the Department, be funded by the Department.
- 5) For public open spaces, water resource management and planning costs be recovered from public funds.

### 2.3.2 Nexus Between Costs and Charges

It is important, for efficiency and equity reasons, that charges reflect as closely as practicable the costs of the services being provided. Any averaging of costs across different customer categories will result in some customers paying more than their cost of service (and, conversely, some customers paying less). However, there is a trade-off between highly cost-reflective charges and having simpler charges that are easy to understand and administer.

Further, it is appropriate for the prices of different outputs to reflect the costs of water resource management incurred in their production, so that producers can make better informed decisions about the best use of water resources over the long term.

#### Submissions

- The Manjimup and Pemberton Landowners generally opposed the averaging of fees across users, which they maintained does not sufficiently reflect costs.<sup>12</sup> They and WAFarmers recommended itemised fees for specific services, with quotes to be provided by the Department on the basis of an hourly rate for each service required, and with a provision for licence holders to appeal their fees to a senior officer of the Department.<sup>13</sup>
- The Landowners dispute the scale of the indicative charges in the Second Draft Report, on the basis that they do not consider that they reflect the level of effort by the Department; in particular, the level of charges for simple licence renewals, amendments or trades, which the Landowners regard as simple “rubber stamping” exercises. The Landowners assess each of the charges on the basis of a suggested hourly fee and number of hours for a single licensing officer, to substantiate their claim that the proposed fees are too high. The Landowners also object to the level of fees (per ML of water allocation) for small licence holders compared to large licence holders, such as irrigation co-operatives and mining companies.
- The Landowners submitted that the Department does not provide any services that benefit the businesses in their area and that there is no evidence that licensing services are necessary in what they consider to be a water abundant region. Furthermore, the Landowners suggested that there is no obvious water management service provided by the Department, as the licence holders manage the water on their property and accept all risks associated with dam construction and maintenance. The Landowners believe that funding provided by water resource management charges would not result in improved services provided by the Department to self-supply water users and would not improve security of water entitlements.<sup>14</sup>
- Rio Tinto and the Chamber of Minerals and Energy submitted that licence application fees should not increase with the size of the water allocation, as this did not correlate with the amount of work required by the Department to assess large licences.<sup>15</sup> Large licence holders often carry out their own technical assessments, hydrological or hydrogeological surveys and develop their own operating strategies, so that the amount of effort by the Department in assessing these applications is less than for smaller applicants.

<sup>12</sup> Manjimup and Pemberton Landowners submission on the Issues Paper and the Second Draft Report.

<sup>13</sup> Manjimup and Pemberton Landowners and WAFarmers submissions on the Second Draft Report.

<sup>14</sup> Manjimup and Pemberton Landowners submission on the Issues Paper.

<sup>15</sup> Submissions by Rio Tinto Iron Ore and the Chamber of Minerals and Energy on the first Draft Report.

- The Department submitted that the best indicator of the amount of effort involved in processing different licence applications was the risk assessment applied to each licence or permit application. The risk matrix applied in these risk assessments is based on the criteria that the Department is required by its legislation to apply to each application that it receives (one of which is the size of the water allocation).<sup>16</sup> However, the Department acknowledged that there is scope for refining the risk matrix to improve the cost-reflectivity of charges, by considering the number of volumetric bands, the number of risk categories, and the scope for lowering the risk assessment of some applications.<sup>17</sup> The Department also acknowledged that, while it is required by its legislation to assess licence amendments by the same criteria as new licence applications, in the case of simple amendments (such as a simple name change) a minimum charge should apply.<sup>18</sup>
- The Water Corporation submitted that in order to appropriately allocate the costs to licence holders causing the costs to be incurred, licence holders should pay a charge based on the costs associated with the specific resource they are drawing from. The Water Corporation was concerned that charges based on state-wide costs would introduce the possibility of some licence holders paying for services they do not use and others paying twice for the same service.<sup>19</sup>

### Authority Assessment

The Authority is generally supportive of the proposals to have charges set as cost reflectively as possible and has considered in detail the option of setting fees based more closely on the services provided to licence holders, as suggested by the Manjimup and Pemberton Landowners.

#### Cost reflectivity in licence application fees

In the first Draft Report, the Authority proposed a schedule of applications fees for licences and permits which varied with the degree of complexity of the licence application. Under this approach, a licence application that required a simple technical assessment, simple hydrological or hydrogeological assessment and simple operating strategy would have a lower application fee than a licence application that required a complex technical assessment, complex hydrological or hydrogeological assessment and complex operating strategy. If fees can be set in a way that reflects the costs incurred by the Department for different types of assessment, then such an approach would approximate to the “quotation” type of approach recommended by the Manjimup and Pemberton Landowners, without being overly complex to administer or verify.

However, the Department was not able to provide supporting cost information to the level of detail required for such a disaggregation of charges. The Department proposed a charging structure based on licence risk assessment, and provided estimates of the degree of effort involved in processing licences with different risk assessments, based on a time-keeping survey by licensing officers.

Charges should reflect, as closely as possible, the amount of effort (or cost) incurred by the Department for different activities. The derivation of the proposed licence application

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<sup>16</sup> These criteria are set out in the *Rights in Water and Irrigation Act 1914*, Schedule 1, Division 2, Section 7.2.

<sup>17</sup> Department of Water submission on Second Draft Report.

<sup>18</sup> Ibid.

<sup>19</sup> Water Corporation submission on the Discussion Paper.

fees, in line with this principle, is described in detail in Section 4.2. However, in response to submissions, the Authority notes the following.

- It is incorrect to compare charges on the basis of “per ML of entitlement” and claim that small licence holders are being over-charged, when charges are set to reflect the amount of effort involved in processing each licence.
- It is also incorrect to calculate costs of service by using an hourly rate for a licensing officer. In estimating the costs of service, the Authority has allocated the costs of all activities involved in processing licence applications (including licensing support services, regional hydrogeological advice services and surface water assessment activities). The processing time taken for different applications was used as a proxy to allocate these costs; i.e. as a measure of the relative amount of effort. However, the processing and assessment of licences involves more than a single licensing officer.
- The Authority accepts that large licences do not necessarily require more work to process than small licences (for example, it is often medium-risk licences that require the most work by the Department, as these applicants do not carry out as much of the analysis required to support their applications, compared to high risk licence applicants).
- However, the Department has indicated that there is a correlation between licence size and the risk assessment of a licence. This is reflected in the weight that is given to allocation size (among other criteria) in the initial risk assessment, with large licences more likely to be in higher risk categories. The Department has also cited an example where a very large user (public water supplier) can have a disproportionate impact on the risk categorisation of other (small) licence holders in an area.
- The cost of licence renewals should be lower, given that the Department applies a conservative approach to the allocation of licences, to reduce the risk that allocation limits will need to be reduced in the future. In this case, licence renewals should indeed be straight-forward. If it is the legislation that is driving the level of effort that the Department is required to put into licence renewals and amendments, when such procedures could be simplified, then customers should not be required to pay for the additional effort.

### **Cost reflectivity in water allocation planning charges**

Another activity where costs can vary between different licence holders is that of water allocation planning (including environmental water planning and supporting services). Allocation plans are developed by the Department in order to determine the amount of water that can be taken by licence holders in a given area, taking into account environmental water requirements and the potential impacts of water use on the environment and other water users. The costs of allocation planning are much higher in areas where most, if not all, of the water resources have been allocated.

Cost-reflective charges would therefore involve differentiating charges for allocation planning on the basis of costs per region. The most cost-reflective approach to recovering the costs of water allocation planning would be to set charges to recover the costs of each groundwater or surface water allocation plan from the licence holders in that plan area. This is the approach adopted in New South Wales, where different water resource management and planning charges are set for each catchment or valley. Another option is to find a reliable measure of the level of allocation planning management effort in different areas (e.g. incorporating criteria such as the degree of water resource allocation, level of environmental risk and other risks, or the potential for future risks).

The Second Draft Report proposed a charging structure for allocation planning charges which varied according to the level of water resource management response by the Department in each region (with the lowest level of management in low risk regions, with relatively low levels of use or risk to the environment, and the highest level of management in high risk areas, where water resources are close to or above full allocation of available water resources).

However, submissions and meetings with stakeholders (such as the Manjimup and Pemberton Landowners) suggested that the proposed structure did not fully reflect the differences in costs of water allocation plans in different areas. For example, a small licence holder in a high risk area taking less than 100,000 kL could incur the same annual charge as an irrigation co-operative (as a single licence holder) taking hundreds of ML. The Department also acknowledged that the proposed charges did not sufficiently reflect the additional management costs associated with very large volume users.

The Authority's recommendation is therefore that annual charges should be set on a regional basis, to reflect the costs of water resource management for each water management area. The appropriate definition of "water management area" is each water allocation plan, since these plans define the available water, water use impacts and stakeholders, relevant to the management of water resources for that local area. Within each area, there will also be particular water uses, licence holders or impacts that require more management by the Department and it is appropriate that any cost recovery reflect the relative balance of effort.

Another consideration is that allocation planning in some areas is highly developed, and the work that has been carried out in developing these plans has been publicly funded. Therefore, it would be unfair for licence holders in areas without allocation plans to incur the full costs of the initial implementation of their plans. These issues can be overcome by allowing the development of the initial allocation plans in all areas to be publicly funded, with cost recovery of ongoing water resource management and planning costs to commence once the allocation plans are implemented.

The Authority's recommended approach for cost-reflective charges for water allocation planning and the ongoing management of water use is set out in Section 4.3.5.

### **2.3.3 Level of Service and Charges**

The Authority noted from the submissions received that there is at times a poor understanding of the services provided by the Department, particularly in the ongoing activities of water resource management and planning. The Manjimup and Pemberton Landowners in particular do not recognise the services provided to them by the Department, or consider that they have been sufficiently consulted.

In response to the question "What services does the Department provide?", the Authority commissioned Quantum Management Consulting & Assurance to map the processes and steps used by the Department in each of the services identified as suitable for cost recovery. The Authority also engaged the Resource Economics Unit to look in detail at the Department's water allocation planning activities in the Manjimup (Warren and Donnelly Rivers) area. Both reports are published on the Authority website.

The Authority acknowledges that the services provided by the Department are often less tangible than other government services (e.g. rubbish bin collection by shire councils, or potable water supply by public water suppliers). Also, it is possible that the Department's communication of its activities and consultation and engagement with stakeholders could be improved in some areas. However, the Authority also notes that there is wide public



documentation of the Department's processes and decision-making as part of its development of water management and allocation plans, involving several stages of public consultation.

Any levying of charges on customers must be accompanied by a clear understanding of the services that are being provided. There should also be general agreement between customers and the service provider on the service standards to be met, and procedures in the event that they are not. The setting and monitoring of service standards associated with cost recovery is discussed in detail in Section 9.2, which recommends the establishment of a water industry committee to represent stakeholders and work with the Department to develop service standards for the Department's services.

### Nexus between Costs and Charges

- 6) Charges should reflect as closely as practicable the efficient costs incurred by the Department.
- 7) Where practicable, charges to licence holders should vary by region to reflect the costs of water resource management in each region.
- 8) The nature of services being provided and the service standards to be met should be clearly specified and agreed in consultation with customers.

### 2.3.4 Equity Issues

Other issues raised throughout the inquiry related to the equity of charges; i.e. the principle that users in similar situations should pay similar charges. Two key areas of debate were:

- the ability to pay for different users; and
- the treatment of domestic garden bores in Perth.

#### *Ability to Pay for Different Users*

Section 8 discusses in detail the impacts of the proposed charges on different types of customers. However, the issue here is the principle of whether charges should be adjusted to take into account the capacity to pay.

A number of submissions from the agricultural sector raised concerns about the capacity to pay for some customers in the agricultural sector.<sup>20</sup> Submissions included the views that charging agricultural and horticultural producers is inequitable because:<sup>21</sup>

- food producers are price takers and are unable to pass their costs on to consumers, so would bear the full cost of the charges, unlike others who would face charges;

<sup>20</sup> See submissions by WAFarmers, vegetablesWA and the Potato Growers Association, the Manjimup and Pemberton Landowners, and the Department of Agriculture and Food WA.

<sup>21</sup> See Sections 8.3 and 8.4 for more discussion of the views in submissions regarding capacity to pay.

- the agricultural sector is facing considerable cost pressures due to rising input costs (e.g. for electricity, labour, fertilisers and chemicals) and falling exports, due to the strong Australian dollar; and
- the local production of high quality food should be valued by the State and not hampered due to additional cost burdens.

On the other hand, the Water Corporation submitted that cost recovery based on the size of the customer's client base and/or perceived ability to pay may result in a distortion of water trading markets and result in an inefficient allocation of water resources. While ability to pay is an important factor when considering cost allocation between customer groups, the Water Corporation indicated that the Authority should ensure equal treatment of customers who are using the same service.<sup>22</sup> Rio Tinto also submitted that any cross-subsidies (e.g. related to inability to pay) should be funded through a separate mechanism and not reflected in the structure of water resource management fees and charges.<sup>23</sup>

The Authority remains of the view, set out in the first Draft Report, that ability to pay matters should not influence the design of a cost-reflective charging regime. It is important for the costs of water resource management and planning to be signalled to those who cause those costs to be incurred. Water resource management costs are one part of the cost of providing water, to those who use it as an input to commercial activities (as with any other input), or to those who use it for private consumption. The licences created through the allocation planning process are a substantial asset for their owners. Cost-reflective pricing helps to promote the use of water resources in their highest value use and discourage water use for activities where it is not valued.

### Ability to Pay for Different Users

- 9) Ability to pay concerns should not influence the design of water resource management and planning charges.

### Domestic Garden Bores

The issue of the licensing of domestic garden bores in Perth remains contentious. Garden bores are not licensed, so would not be subject to water resource management and planning charges. However, many submissions considered that there is an inconsistency between the approaches applied to garden bore owners and to licence holders and that this is inequitable (e.g. WAFarmers, Manjimup and Pemberton Landowners, Shire of Nannup, Pastoralists and Graziers Association of WA, Conservation Council of WA).

Bores in Perth collectively use 120 GL per year (775 kL per bore per year), with 60 GL coming from the Gnamptarra Mound.<sup>24</sup> This calls for consideration of whether or not bore owners should contribute towards the costs incurred in the modelling and monitoring of groundwater levels on the mound.

In principle, the Authority supports charging those who cause costs to be incurred, if this can be done cost effectively. One approach would be to license bore owners, although

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<sup>22</sup> Water Corporation submission on the Issues Paper.

<sup>23</sup> Rio Tinto Iron Ore submission on Second Draft Report.

<sup>24</sup> Gnamptarra Sustainability Strategy, Situation Statement, January 2009, p69.

ACIL Tasman has calculated that the cost of licensing domestic bore owners in Perth would amount to \$3.7 million assuming no assessment is required.<sup>25</sup> An alternative means of charging garden bore owners could be through the Water Corporation's billing system.

In the first Draft Report, the Authority recommended that garden bore owners in Perth would ideally be charged for the costs that they cause to be incurred in monitoring and managing Perth's groundwater resources.

However, the Department and Water Corporation were strongly opposed to this view.

- The Department submitted that it would be difficult to identify bore owners and that the administrative costs would outweigh the benefits of charging bore owners. Although the Department's cost to manage garden bores has not been established, it is only likely to be in the order of \$2 million at most. This would result in an annual charge of about \$11 per bore averaged over 177,000 bores. The Department believes that the costs of administering such a scheme are likely to greatly exceed this.
- In assessing cost recovery options for unlicensed water users (and garden bores in the Perth region in particular), the Department submitted that it is important that the benefits of garden bores should be considered. The water sourced by garden bores would generally not be used otherwise and provides a fit for purpose water source that reduces the amount of water that needs to be sourced for the Integrated Water Supply Scheme. The costs to the community of managing, sourcing and supplying that water would be substantially greater than the Department's management costs associated with garden bores.<sup>26</sup>
- The Water Corporation submitted that it does not have a record of all bore owners, so additional work would be required to establish a register of bore owners.

In view of these submissions, the Authority reviewed its recommendation on garden bores, and proposed in the Second Draft Report that garden bore owners should not be licensed, on the basis that the costs of recovering any water resource management costs associated with the use of domestic garden bores in Perth would outweigh any benefits. However, this recommendation was strongly opposed by stakeholders in the agricultural sector, primarily on equity grounds.

- The Manjimup and Pemberton Landowners strongly objected to the Authority's recommendation that garden bore owners not be charged. They and the Pastoralist and Graziers Association of WA both submitted that the rationale used to justify not licensing garden bores (i.e. that they reduce demand on scheme water supplies and that the water would not be used otherwise) can be equally applied to farm dam owners.
- Several submissions did not accept the argument that the costs of licensing bore owners would outweigh the benefits (Manjimup and Pemberton Landowners, Shire of Nannup, Pastoralists and Graziers Association of WA). The Landowners submitted that the administrative costs did not deter the Department of Fisheries from imposing a \$30 licence fee for recreational fishers, who are more difficult to identify than bore owners. The Pastoralists and Graziers Association of WA submitted that a register could be established from existing information maintained by Landgate.

<sup>25</sup> Source: ACIL Tasman, Options for Cost Recovery in Water Licensing, June 2009, p49.

<sup>26</sup> Department of Water submission on the Draft Report.

- The Pastoralists and Graziers Association of WA noted the recent actions taken by the Department against some bore owners regarding overuse of water, and submitted that this indicated that there were environmental impacts from borewater use.
- The Department of Agriculture and Food WA (**DAFWA**) acknowledged that there is an inconsistency in approach between the treatment of garden bore owners and licensed water users, but that the costs of introducing charges for garden bore owners would outweigh the benefits. However, DAFWA recommended ongoing monitoring of the costs of managing the impacts of garden bore use.

### *Authority Assessment*

The issue of the treatment of garden bores is a complex one. Previous water management policies have been aimed at encouraging bore ownership, in order to reduce demand on scheme water (of which 30-55 per cent is drawn from groundwater reserves) and the associated impacts on the environment. However, garden bore water use can also have detrimental impacts in some sensitive local areas: the Department publishes a map showing large areas of the Perth metropolitan area that are deemed unsuitable for additional garden bores.

It is consistent with the cost recovery principles for the water resource management and planning costs associated with garden bore use to be recovered from bore owners, if it is cost effective to do so. Implementation of charges would require a complete register of the location of garden bores (information on which is incomplete and would require considerable effort to compile, as it would not be in the interests of garden bore owners to self-identify if they face the prospect of charges), as well as the costs of establishing and maintaining a billing system. The Authority's conclusion is that, at present, the administrative costs of implementing charges for garden bore owners would exceed the water resource management costs caused by bore ownership. Therefore, the Authority does not recommend charges for bore owners at this stage.

The Authority's assessment is that recent actions taken by the Department in fining garden bore owners is not an indication of the environmental impact of garden bores. Most fines for garden bore owners are for violating the three day per week sprinkler restrictions on garden bores. These restrictions are imposed primarily for reasons of equity (with scheme water users, who are on two day per week restrictions) and for secondary impacts on scheme water use, rather than to address the environmental impacts associated with garden bores.

However, it is likely that further growth in the number of bores in Perth will add to the pressures on urban groundwater reserves and increase the need for and cost of monitoring and managing the impacts of urban garden bore use. The Department should therefore continue to monitor the water resource management costs associated with garden bores, and commence establishing a register of garden bores to facilitate cost recovery when this becomes necessary.

## Domestic Garden Bores

- 10) Garden bore owners in Perth should be charged for the costs that they cause to be incurred in monitoring and managing Perth's groundwater resources, if the administrative costs do not outweigh the costs to be recovered.
- 11) The Authority does not recommend charges for garden bores at this stage, as the administrative costs are likely to exceed the costs to be recovered. However, the Department should continue to monitor the water resource management costs associated with bore ownership, which are likely to increase as the number of bores grows. The Department should also establish a register of garden bores to facilitate future cost recovery.

### 2.3.5 Implementation Issues and New Water Resource Management Legislation

This inquiry has been carried out against a backdrop of considerable uncertainty regarding the future legislation of water resources management in Western Australia. The Department is currently drafting a Water Resources Management Bill for consideration by Government as part of its water management reform agenda. It is anticipated that the drafting of the bill will be finalised in 2011. The Department produced a discussion paper, *Water Resources Management Options*, in November 2009, with public consultation ending in May 2010, to provide information on and guide the development of the legislation. The discussion paper indicated that the aim of the new legislation is to consolidate the seven different Acts governing water resource management and planning in Western Australia and to introduce reforms that are consistent with the National Water Initiative. Options for reform include (among others):

- the development of more transparent allocation plans (including defining environmental water management objectives);
- consumptive pool arrangements for each water allocation area, with tradeable perpetual water access entitlements as shares of the consumptive pool and a framework for assigning risks arising from reduced water allocations;
- the separation of land and water entitlements and an improved water registry to facilitate trading; and
- cost recovery for water planning; water management, monitoring and assessment; licensing; and operation of the water register.

The Authority's recommendations have been developed primarily on the basis of the cost recovery principles. However, the implementation of some charges may require additional powers by the Department than are currently available.

- Under its current legislation, the Department has powers to recover costs for:
  - processing and assessment of licences and permits;
  - licensing of the Water Corporation for the IWSS; and
  - water metering.

- The Department also has powers to levy ongoing charges for water licensing policy and enforcement and water allocation planning and management. However, this would require it to establish a Water Resources Council, which is required under the current legislation in order to approve statutory water allocation plans, for which the costs of water allocation planning activities could be recovered. Currently, the Department's water allocation plans are non-statutory.
- The Department also has the powers to recover costs associated with the protection of public drinking water sources, although this would require a Memorandum of Understanding between the Department and water service providers.
- Further, the Department could implement charges for water resource management costs associated with subdivision applications, development proposals from local government, and floodplain management, although this would require agreement with the parties to be charged.

Against this background, the Department has therefore proposed:

- cost recovery in the short term of the costs of the activities for which it currently has heads of power, and for protection of public drinking water services via MOUs with water service providers; and
- recovery at a later stage (subject to additional powers) of costs associated with water allocation planning and management; subdivision applications; development proposals from local government; and floodplain management.

The Authority's approach to this inquiry has been to determine those activities for which costs should be recovered, and to develop fees and charges consistent with the cost recovery principles. Some fees and charges will be straight-forward to implement under the current legislation, while others are more difficult, and would ideally require additional powers on the part of the Department. The proposed implementation of fees and charges is discussed in Section 9. The development of new water resource management legislation should take into account the Authority's recommendations on the approach to cost recovery for the services considered in this report.

## 3 Accountability, Effectiveness and Efficiency in Water Resource Management and Planning Activities

### 3.1 Terms of Reference

The Authority is requested in the Terms of Reference to consider and develop findings on:

- the tasks or activities undertaken in the efficient management of the State's water resources, by the Department of Water, that would appropriately be recovered from water users; [and]
- the most appropriate level (or percentage) of cost recovery from water users.

### 3.2 Background

The Department carries out a wide range of activities, which are listed in **Appendix D**. However, only some of these activities will be suitable for cost recovery in accordance with the principles discussed in Section 2. Many activities are in the nature of public goods (for example, development of strategic water policy and legislation). Other activities are carried out on behalf of private parties, but those parties cannot be identified (for example, non-licensed water users who benefit from activities to establish the availability of water resources). However, for a number of activities it would be possible to recover the costs from the parties for which those costs have been incurred.

The cost information submission from the Department provided information on the level of effort and costs involved in undertaking water resource management and planning activities identified by the Authority as suitable for cost recovery in the first Draft Report.

In assessing the appropriateness of cost recovery for each activity, the Authority considered the following questions.

- What does the Department do? If costs are to be recovered from private parties, there is a need for the Department to be transparent and accountable for its activities – customers need to be able to see what they are paying for.
- How effective is the Department in carrying out its activities? Customers need to be assured that the Department is carrying out the right activities in meeting its obligations under the legislation.
- How efficient is the Department in carrying out its activities? Customers should pay no more than the efficient level of costs of providing services.

This section deals with the estimation of the efficient costs of carrying out water resource management and planning activities. To determine this, the Authority considered the Department's submission on its costs, and engaged consultants to examine the Department's processes, effectiveness and efficiency in carrying out its activities. The reports by the consultants are available on the Authority's website.

Section 3.3 summarises the Department's submission on the activities proposed for cost recovery and provides the Department's cost estimates of carrying out these activities.

Section 3.4 outlines the Authority's assessment of the Department's accountability, effectiveness and cost efficiency and presents the Authority's conclusions on the efficient costs of the Department's activities.

A further consideration is whether there is an element of public good to any of the activities, in line with the principles set out in Section 2. The Department outlined in its submission its assessment of the proportion of costs for each activity that need not be recovered from private parties. The Authority considered this assessment as part of the analysis on cost recovery and indicative charges for each of the services (Section 3.5.2).

In determining how much customers should pay for the Department's services, the Authority has adopted a conservative approach to ensure that no inefficient costs are passed on. This is not to say that the Department is inefficient in particular activities, but simply that the information provided by the Department is not complete, and the Department would need to collect data over a longer period of time to enable the Authority to establish with greater certainty that the costs incurred are efficient.

### **3.3 Department of Water's Submission on its Services, Activities and Costs**

In its submission, the Department identified nine services as being suitable for cost recovery, either immediately or sometime in the future. They are:

- processing and assessing applications for water licences and permits;
- providing water allocations and managing the ongoing use of water;
- licensing of the Water Corporation for the Integrated Water Supply Scheme;
- water metering;
- protecting public drinking water sources;
- providing advice on statutory referrals;
- guiding urban drainage and water management;
- providing floodplain management advice; and
- providing water information.

To provide these services the Department carries out a range of different activities. Some activities are exclusive to a particular service, but other activities may be carried out for a number of different services. For example, groundwater assessment, investigation and review contributes mainly to the provision of water allocations and managing the ongoing use of water, but may also be carried out for the protection of public drinking water sources and to guide urban drainage and water management. The relationship between the services provided and the activities carried out to provide those services is shown in the Department's cost summary in Table 3.2.



### 3.3.1 Department of Water's Activities

This section, drawn from the Department's submission on the costs of its activities, provides a brief description of the activities carried out by the Department in providing the nine services proposed for potential cost recovery.

#### Water licensing and compliance

- The water licensing and compliance activity, which is largely undertaken by people in the Department's regional offices, involves the issuing of licences and permits associated with the taking of water for commercial use and public water supply. This includes assessing applications for licences to take water, permits to interfere with bed and banks, and licences to construct or alter wells. As part of this activity, the Department also undertakes compliance work in the form of water use surveys, compliance checks, assessing monitoring reports and responding to complaints. The Department submitted that water licensing and compliance activities contribute exclusively to the service of processing and assessing licence applications.

#### Water licensing support

- The water licensing support team in the head office provides support to the licensing process to ensure that the licensing function operates smoothly and efficiently. It maintains the licensing systems, provides training, offers guidance on complex licensing issues, and manages the appeals process against licensing decisions.<sup>27</sup> The Department submitted that water licensing support activities contribute exclusively to the service of processing and assessing licence applications.

#### Regional hydrogeological advice

- This activity involves the provision of advice from regionally specialised hydrogeologists to support assessments of groundwater licence applications. Hydrogeological advice is provided for complex groundwater licence applications that have significant potential to affect other users, the water resource or the environment. The Department submitted that regional hydrogeological advice contributes exclusively to the service of processing and assessing licence applications.

#### Water licensing policy

- The Department develops water licensing policies at the operational level to determine rules and approaches to licence allocation and management. The Department submitted that the activity of water licensing policy contributes exclusively to the service of providing water allocations and managing the ongoing use of water.

#### Enforcement

- The Department carries out investigations into breaches of statutes and licence terms and conditions and collates information needed to enforce actions. The Department submitted that the activity of enforcement contributes exclusively to the service of providing water allocations and managing the ongoing use of water.

<sup>27</sup> This is done through liaison with the State Administrative Tribunal.

### **Water allocation planning**

- The Department develops water allocation plans to determine the amount of water that can be allocated to users in surface water or groundwater controlled areas. Allocation plans identify water management objectives, environmental water requirements, water use impacts, water allocation limits, licensing policy and rules, and management responses. The Department submitted that water allocation planning contributes exclusively to the service of providing water allocations and managing the ongoing use of water.

### **Environmental water planning**

- In this activity, the Department identifies the amount of water required by the environment in a given area to preserve specified environmental values. The Department submitted that environmental planning activities contribute exclusively to the service of providing water allocations and managing the ongoing use of water, on the grounds that the licence holders in a catchment cause this work to be undertaken.

### **Surface water assessment**

- The surface water assessment activity involves the Department undertaking analysis and hydrological studies. The Department's view is that these activities contribute largely (80 per cent) to the service of providing water allocations and managing the ongoing use of water, while some (10 per cent) are carried out as part of processing and assessing water licence applications. The remaining 10 per cent of surface water assessment activities are carried out to support functions that cannot be attributed to private parties, such as assessing the impact of climate change on surface water sources, or providing advice on surface water licence applications in areas that are not covered by an allocation plan.

### **Groundwater assessment, investigation and review**

- This activity involves investigation of the State's groundwater systems, through groundwater drilling, measurement and modelling to assess the availability, distribution and quality of groundwater resources and their response to groundwater use and land use. The Department submitted that the majority of this activity (90 per cent) contributes to the service of providing water allocations and managing the ongoing use of water, with the remainder of the activity supporting the services of protecting public drinking water supplies (5 per cent), and guiding urban drainage and water management (5 per cent).

### **Water information collection**

- This activity involves the operation and maintenance of over 300 surface water gauging stations and 3,000 groundwater monitoring bores to collect information on surface water and groundwater resources across the State. The Department estimates that around 15 per cent of surface water information collection costs and 70 per cent of groundwater information collection costs are associated with the provision of water allocations.

## Water information management

- The Department manages all the water information it collects in central databases. This activity involves collating all data, assuring data quality, storing and retrieving data, and reporting data for water accounting purposes. The Department estimates that 30 per cent of the water information management activity contributes to the service of providing water allocations and managing the ongoing use of water.

## IWSS licensing

- IWSS licensing covers the activities carried out by the Department to provide licences to the Water Corporation to provide public drinking water supplies to the Integrated Water Supply Scheme (IWSS). The IWSS covers a wide area, including Perth, Mandurah, many towns in the wheatbelt and eastwards as far as Kalgoorlie and Norseman. Water for the IWSS is drawn from a complex range of groundwater and surface water sources. The costs associated with the IWSS are identified separately as a service to a major customer, and the Department submitted that the activity of IWSS licensing contributes exclusively to the service of providing licences to the Water Corporation for the IWSS.

## Water metering

- The water metering activity involves the installation, maintenance and reading of State-owned water meters for bores in the high use and high risk groundwater areas on the Gngalara Mound and in the Carnarvon Groundwater Area.

## Water source protection planning

- Water source protection planning by the Department involves the preparation of water source protection plans for water services providers (primarily the Water Corporation, but also Aqwest (Bunbury Water Board) and Busselton Water. These plans are to ensure the availability of safe, reliable and good quality supplies of public drinking water by guiding land use and management activities in the vicinity of drinking water sources. The Department submitted that water source protection planning activities contribute exclusively to the service of protecting public drinking water supplies.

## Preparation of guidance notes

- The Department prepares guidance notes on water resource management impacts and issues relating to land use planning and development. The guidance notes are for land use planning agencies, local councils and developers. The Department submitted that the activity of preparing guidance notes contributes equally to two services: the protection of public drinking water supplies and the provision of advice on statutory referrals.

## Implementation of water source protection plans

- Implementation of water source protection plans is carried out by the Department's regional offices and involves providing advice on land use planning and development in drinking water catchments and other activities, such as providing signage. The Department estimates that some of this activity (20 per cent) is carried out to support the service of protecting public drinking water supplies.

However, the majority of water source protection plan implementation (80 per cent) is carried out as part of the service of providing advice on statutory referrals.

### **Acquisition of P1 land**

- The Department negotiates with landowners to purchase land required for the protection of public drinking water supplies (Priority One, or P1, land). The Department submitted that all of this activity contributes to the service of protecting public drinking water supplies.

### **Land asset management**

- The Department owns and controls over 713,000 hectares of land, including P1 land and reserves vested in the Department. The Department estimates that 20 per cent of the costs of the activity of land management contribute to the service of protecting the public drinking water supplies.

### **Statutory referrals**

- The Department provides advice to the Western Australian Planning Commission (**WAPC**), local governments and developers on the water resource management implications of planning and development proposals. These proposals may range from local sub-divisions and development applications, to district or regional level planning proposals. The Department submitted that all of this activity contributes to the service of providing advice on statutory referrals.

### **Drainage and water management planning**

- The Department carries out technical assessments and develops drainage and water management plans on urban areas proposed for future development to provide guidance to planning organisations (such as the WAPC) and developers on water management issues associated with development. The Department submitted that all of the costs of drainage and water management planning activities can be attributed to the service of guiding urban drainage and water management.

### **Arterial drainage studies**

- The Department carries out arterial drainage studies in order to implement the better urban water management framework.<sup>28</sup> This activity involves developing better management practices and governance for drainage, planning drainage research and development, carrying out studies on drainage management (including nutrient discharge), and addressing ways to improve or maintain drainage infrastructure. The Department submitted that all of the costs of arterial drainage studies can be attributed to the service of guiding urban drainage and water management.

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<sup>28</sup> See Western Australian Planning Commission (October 2008), *Planning Bulletin 92: Urban Water Management*. The Better Urban Water Management framework has been developed jointly by the Department for Planning and Infrastructure, the Department of Water, the Western Australian Local Government Association and the Australian Government Department of Environment, Water, Heritage and the Arts.

### Floodplain management advice

- The Department provides advice, primarily to local governments, on floodplain areas and flood levels. The advice is generally related to specific developments and is aimed at ensuring that there are no unacceptable risks of flood. The Department submitted that all of this activity contributes to the service of providing floodplain management advice.

### Water information provision

- The Department receives around 2,800 requests each year for information on water resources. The Department provides this information by extracting information from its systems and developing tools, maps and models to access and display the information. The Department estimates that all of the water information provision activity contributes to the service of providing water information.

### 3.3.2 The Department's Estimates of Costs of its Activities

The Department's submission to the Authority on the costing of its activities ("**cost submission**") is available on the Authority's website.<sup>29</sup> The Authority received a draft of the Department's cost submission in May 2010 and the final cost submission on 6 September 2010.

In its cost submission, the Department estimated that the total cost to undertake all of its activities was just under \$108 million in 2008-09. Cost information at an activity level was provided for three full years, 2006-07, 2007-08 and 2008-09 and for the first eight months of 2009-10 (July to February). The Department allocated activity costs, either wholly or partially, to the services to which they contribute. In its submission, the Department considered that 51 per cent, or \$56.0 million, of the total cost reflects the cost of activities which wholly or partly contribute to services that may be suitable for cost recovery.<sup>30</sup>

The Department's cost estimates include an allocated amount of the following overhead costs (or "on costs" as they are called in the Department's submission):

- corporate overheads (including finance and administration, human resources, information technology and the corporate executive);
- regional administration overheads (the costs of operating each regional office: Kimberley, Kwinana Peel, Mid West Gascoyne, Perth, Pilbara, South Coast, South West and Swan Avon); and
- divisional executive costs (the costs of the executive for the Water Resource Use, Water Resource Management and Regional Management and Water Information divisions).

The Department's estimated costs of activities are outlined in Table 3.1.

<sup>29</sup> Department of Water (2010), *Economic Regulation Authority Inquiry into Water Resources Management and Planning Charges: Costing of Water Activities*.

<sup>30</sup> The total cited by the Department in its cost submission (page v) was \$55.5 million, which excludes the costs of regional hydrological surveys of \$441,160. However, these costs are included in later parts of the submission, so the Authority has included them in the Department's total estimate.

**Table 3.1 Department of Water Estimates of Costs of Activities (2008-09)**

Activity to be Costed	Department of Water Cost Estimates		
	Direct Costs (\$)	Overheads (\$)	Total Costs (\$)
Drainage and water management planning	1,541,744	126,521	1,668,265
Arterial drainage studies	1,237,649	270,494	1,508,143
Statutory referrals	985,021	439,180	1,424,201
Floodplain management advice	580,409	147,891	728,300
Water source protection planning	849,024	257,412	1,106,436
Implementation of water source protection plans	447,096	246,914	694,010
Preparation of guidance notes	657,067	194,409	851,476
Water allocation planning	2,795,917	749,919	3,545,836
Environmental water planning	2,524,990	597,325	3,122,315
Water licensing policy	1,695,837	191,558	1,887,395
Water licensing and compliance	5,047,313	2,784,235	7,831,548
Water licensing support	878,658	334,784	1,213,442
IWSS licensing	237,139	87,072	324,211
Enforcement	482,004	139,315	621,319
Metering	2,573,092	381,877	2,954,969
Groundwater assessment, investigation and review	9,021,978	681,828	9,703,806
Regional hydrogeological advice (2009/10 est)			441,160
Surface water assessment	621,357	149,286	770,643
Water information collection	7,760,884	2,533,315	10,294,199
Water information management	1,175,926	504,567	1,680,493
Water information provision	393,022	160,132	553,154
Acquisition of P1 land	2,721,700		2,721,700
Land assessment management	277,397	60,427	337,824
<b>Total</b>	<b>44,505,224</b>	<b>11,038,461</b>	<b>55,984,845</b>

Source: Department of Water "Costing of Water Activities"

Table 3.2 on the next page shows how the Department has allocated the estimated costs of its activities (totalling \$56.0 million) to its water resource management and planning services that have been identified as suitable for cost recovery.

**Table 3.2 Department of Water's Estimated Costs of Providing Water Resource Management and Planning Services**

Service	Contributing Activities	Department of Water Estimates					
		Estimated Total Cost of Activity (\$)	Per Cent Contribution of Activity to Service	Estimated Total Cost of Service (\$)	Per Cent Private Benefit	Per Cent Costs to be Recovered (rounded)	Costs to be Recovered (\$)
Processing and assessment of applications for licences and permits	Water licensing and compliance	7,831,548	100%	7,831,548	100%	100%	7,831,548
	Water licensing support	1,213,442	100%	1,213,442	100%	100%	1,213,442
	Regional hydrogeological advice	441,160	100%	441,160	100%	100%	441,160
	Surface water assessment	770,643	10%	77,064	100%	10%	77,064
	<b>Sub-total:</b>			<b>9,563,214</b>			<b>9,563,214</b>
Providing water allocations and managing the ongoing use of water	Water licensing policy	1,887,395	100%	1,887,395	100%	100%	1,887,395
	Enforcement	621,319	100%	621,319	100%	100%	621,319
	Water allocation planning	3,545,836	100%	3,545,836	80%	80%	2,836,669
	Environmental water planning	3,122,315	100%	3,122,315	80%	80%	2,497,852
	Surface water assessment	770,643	80%	616,514	80%	65%	500,918
	Groundwater assessment, investigation and review	9,703,806	90%	8,733,425	80%	70%	6,792,664
	Surface water information collection	9,264,779	15%	1,389,717	80%	10%	926,478
	Groundwater information collection	1,029,420	70%	720,594	80%	55%	566,181
	Water information management	1,680,493	30%	504,148	80%	25%	420,123
<b>Sub-total:</b>			<b>21,141,263</b>			<b>17,049,599</b>	
Licensing of the Water Corporation for the IWSS	IWSS licensing	324,211	100%	324,211	100%	100%	324,211
	<b>Sub-total:</b>			<b>324,211</b>			<b>324,211</b>
Water metering	Water metering	2,954,969	100%	2,954,969	100%	100%	2,954,969
	<b>Sub-total:</b>			<b>2,954,969</b>			<b>2,954,969</b>
Protecting public drinking water sources	Water source protection planning	1,106,436	100%	1,106,436	100%	100%	1,106,436
	Groundwater assessment, investigation and review	9,703,806	5%	485,190	100%	5%	485,190
	Preparation of guidance notes	851,476	50%	425,738	100%	50%	425,738
	Implementation of water source protection plans	694,010	20%	138,802	100%	20%	138,802
	Acquisition of P1 land	2,721,700	100%	2,721,700	100%	100%	2,721,700
	Land management	337,824	20%	67,565	100%	20%	67,565
<b>Sub-total:</b>			<b>4,945,431</b>			<b>4,945,431</b>	
Providing advice on statutory referrals	Statutory referrals	1,424,201	100%	1,424,201	100%	100%	1,424,201
	Implementation of water source protection plans	694,010	80%	555,208	100%	80%	555,208
	Preparation of guidance notes	851,476	50%	425,738	100%	50%	425,738
<b>Sub-total:</b>			<b>2,405,147</b>			<b>2,405,147</b>	
Guiding urban drainage and water management	Drainage and water management planning	1,668,265	100%	1,668,265	0%	0%	
	Arterial drainage studies	1,508,143	100%	1,508,143	100%	100%	1,508,143
	Groundwater assessment, investigation and review	9,703,806	5%	485,190	0%	0%	
<b>Sub-total:</b>			<b>3,661,598</b>			<b>1,508,143</b>	
Providing floodplain management advice	Floodplain management advice	728,300	100%	728,300	100%	100%	728,300
	<b>Sub-total:</b>			<b>728,300</b>			<b>728,300</b>
Providing water information	Water information provision	553,154	100%	553,154	50%	50%	276,577
	<b>Sub-total:</b>			<b>553,154</b>			<b>276,577</b>
<b>Total Costs of Providing Services =</b>				<b>46,277,288</b>	<b>Total Costs to be Recovered =</b>		<b>39,755,591</b>

Source: Department of Water "Costing of Water Activities"

Of the \$56.0 million total cost of activities that the Department considers are suitable for cost recovery, only \$46.3 million has been allocated by the Department to the nine services listed in Table 3.2. The \$46.3 million is the Department's total cost of providing the water resource management and planning services that are suitable for cost recovery.

The remaining activity costs (\$9.7 million) that do not contribute to these nine services contribute to other services undertaken by the Department, which have not been identified as suitable for cost recovery and are therefore excluded from consideration in this report.

Of the \$46.3 million total cost of providing the services listed in Table 3.2, the Department has suggested that approximately \$39.8 million was incurred in providing services to private parties and could be recovered through fees and charges. For some activities, while the Department believes that there is a component that can be attributed to private parties, it is unable to identify these private parties at this stage. In accordance with the Authority's principles, these costs should therefore be recovered from public funds.

The Department's costs are partly funded by the Federal Government. Much of this funding has been for capital projects, such as the National Water Commission's Watersmart Australia funding for the Department to undertake additional groundwater assessment activities. This is not included in the costs to be recovered.

## 3.4 Authority Assessment of Activities and Costs

### 3.4.1 Accountability

It is important for those who are paying for a service to be able to see what they are paying for. Transparency about the nature of the Department's activities, the reasons why they are carried out, and the way in which they are carried out can provide support and justification for different types of charges and the levels of charges. Such transparency can improve the accountability of the Department for its costs and activities, by making it easier for those being charged for a service, as well as regulators, to scrutinise the amount that is being charged.

The Authority has sought to clarify and document the way in which the Department carries out its activities in order to provide stakeholders with a clear understanding of the basis for any proposed charges.

### *Process Review*

In the preparation of the first Draft Report, the Authority engaged consultants Marsden Jacob Associates (**MJA**) to carry out an initial assessment of the cost efficiency of the Department's water resource management and planning activities, focusing on the activities for which the Department is seeking cost recovery within the next one to two years, and to examine the effectiveness of the processes used by the Department to control its expenditure and align it with priorities.

The consultants also reviewed a previous water licence fees model, which was developed in 2009 by the Department and ACIL Tasman. They concluded that while the model that was developed could provide a good basis for the consideration of licence fees,



considerable work would be needed to substantiate the estimates of costs and effort which underpin the model.<sup>31</sup>

MJA was unable to conclude whether or not the Department was undertaking its water resource management and planning activities in an efficient manner. Due to the mergers and demergers with the Department of Environment and Conservation, coupled with internal reorganisations, it was difficult for MJA to review and assess the Department's expenditure levels over time. Furthermore, the Department's key efficiency indicators that are published in the State Budget have changed three times in the last three years.<sup>32</sup>

MJA also found that it was difficult to benchmark the Department's costs against other resource managers in Australia to determine whether or not they are efficient.<sup>33</sup> This is partly due to some of the different water resource management activities undertaken in other jurisdictions, as well as the different frameworks that are in place. MJA therefore recommended that there is a need to collect more detailed key performance indicators (**KPIs**) than what is currently available to enable some level of benchmarking with other jurisdictions.<sup>34</sup>

Given the difficulties that have been experienced to date with measuring the efficiency of the Department's costs and its performance more widely, the Authority agreed with MJA's other finding that changes to the relevant areas and the more detailed KPIs that will be adopted should be kept frozen for a period of time.<sup>35</sup>

In order to better understand the nature of the activities carried out by the Department, the Authority engaged consultants Quantum Management Consulting & Assurance (**Quantum**) to carry out a review of the processes used by the Department in the following services:

- processing and assessing applications for water licences and permits;
- providing water allocations and managing the ongoing use of water;
- protecting public drinking water sources;
- providing advice on statutory referrals; and
- water metering.

For each service, the consultants:

- provided a detailed process map and description of the activities and tasks undertaken by the Department;
- identified the number of full time equivalents (FTEs) allocated to undertake each activity; and
- provided case studies to illustrate the processes used.

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<sup>31</sup> Marsden Jacob Associates, October 2009, *Advice on the Department of Water's Cost Efficiency and Water Resource Management and Planning Charges: A report prepared for the Economic Regulation Authority*, p6.

<sup>32</sup> Ibid, p22.

<sup>33</sup> Ibid, pp22-23.

<sup>34</sup> Ibid, p32.

<sup>35</sup> Ibid, p33.

Quantum was unable to provide information on the process used to allocate overhead costs to the different activities, as the Department had at that stage not allocated overheads to activities.

The final report by Quantum to the Authority is available on the Authority's website. The report sets out the processes and systems used by the Department in the following activities:

- validating and assessing licence applications (including both low risk applications and medium/high risk applications), renewing licences, transferring a licence or water agreement and amending, cancelling, suspending, surrendering or terminating a licence;
- licence compliance and enforcement, including the processes for dealing with complaints and investigations (low risk, medium risk and high risk);
- allocation planning, including initial planning and assessment, and the development of low risk and medium-to-high risk allocation plans;
- groundwater assessment, investigation and review for allocation planning, and groundwater assessment advice for other branches in the Department (e.g. drainage and waterways branch, or water recycling, public drinking water supply) or external stakeholders (e.g. National Water Commission, local government, state and federal government agencies);
- surface water assessments, for allocation planning or for licensing;
- metering, including assessing sites for meter installation, meter reading, and management of contractors;
- the assessment of statutory referrals, assessment of technical reports by developers, and clearance of sub-division condition requests as part of the Department's urban water and land use co-ordination; and
- the development of water source protection plans.

In addition to documenting how the Department carries out its activities, the Quantum report indicated that much of the Department's work is driven by its legislative responsibilities. For example, licence application processes are aimed at checking off each of the legislative requirements in the relevant sections of the RiWI Act. However, the consultants recommended that any review of efficiency could consider the number and complexity of activities involved in licensing, to determine whether some tasks could be eliminated or streamlined to reduce the time needed to approve licences (e.g. fast-tracking low-risk licences).

### **3.4.2 Effectiveness and Efficiency**

Once the nature of the activities carried out by the Department is understood, further questions are whether the Department is effective ("Is the Department doing the right things?") and efficient ("Is the Department carrying out its activities in a cost-effective manner?"). Once the efficient costs of carrying out each activity can be determined, those costs can then be allocated to the services that they support and the private parties to whom each service is provided.

To answer these questions, and to determine the efficient level of costs for each activity, the Authority engaged consultants PricewaterhouseCoopers (**PwC**) to carry out an effectiveness and efficiency review. The final PwC report is available from the Authority's website. PwC had conducted a review of the New South Wales Office of Water (**NOW**) in

2009-10, and so was well placed to benchmark the Department's efficiency against that of the NOW.

The Authority also asked the Resource Economics Unit (**REU**) to undertake a case study on the Warren-Donnelly catchment in the vicinity of Manjimup to determine whether or not the Department is undertaking unnecessary work when determining allocation limits and water availability. This case study is also available from the Authority's website.

### ***PwC Review of Effectiveness and Efficiency***

PwC was engaged by the Authority in May 2010 to carry out a review of the effectiveness and efficiency of the Department in the activities which have been identified as being potentially suitable for cost recovery.

The PwC review was carried out at the detailed activity level, which best reflects the structure and organisation of the Department. A sub-set of eight of the Department's activities were examined, representing around 67 per cent of the Department's estimated cost of \$56.0 million for the activities identified for potential cost recovery. These activities were:

- water licensing and compliance;
- water allocation planning;
- groundwater assessment, investigation and review;
- water information collection (groundwater and surface water);
- IWSS licensing;
- metering;
- water source protection planning; and
- statutory referrals.

To determine effectiveness and efficiency in each of the activities, PwC examined, among other things:

- cost drivers, operating expenditure, capital expenditure, overheads and external funding;
- past budgets versus actual expenditure;
- business plans, where available, and decision-making processes for capital investments and prioritisation of expenditure; and
- performance monitoring and evidence of efficiency improvements.

In assessing the Department's efficiency, PwC was also able to benchmark the costs of some activities against costs incurred by the NOW for the same activities.

PwC's key findings on each of the activities are summarised in **Appendix E**. In its review, PwC found that, overall, activities undertaken by the Department are worthwhile, delivering value to customers and assisting in delivering water management objectives. PwC was generally satisfied that the capital projects undertaken were necessary to enable the Department to meet its strategic objectives. PwC also found the Department's level of overheads to be comparable to those of the NOW and acceptable for an agency of that size. However, PwC identified a number of areas where, due to a lack of available information, it was unable to confirm that expenditure was efficient.

PwC therefore recommended that the following adjustments be made to the Department's costs to ensure that no inefficient costs are included in the costs that will be recovered:

- for operating costs, a 20 per cent downward adjustment on 2008-09 operating expenditure to reflect shortcomings in business planning, budgeting and performance tracking;
- for overheads, a 5 per cent downward adjustment on 2008-09 to reflect ongoing efficiency gains; and
- for capital expenditure, a downward adjustment of \$7.57 million to capital expenditure over the period 2006-07 to 2009-10 to reflect a 25 per cent adjustment each for the State Groundwater Investigation Program and the water monitoring network maintenance program.

### *Department of Water Comments on PwC Review*

In its submission on the Second Draft Report, the Department responded to the findings of the PwC Review. The Department disputed some of the findings and conclusions in the PwC report. The summary of the Department's comments, and PwC's response to the Department's comments, is presented in **Appendix E**. The PwC report, the Department's comments, and PwC's response are published on the Authority's website.

### *Case Study on the Warren-Donnelly Catchments*

As a further test of whether the Department's level of effort in allocation planning and managing ongoing water use is appropriate, the Authority asked the REU to undertake a case study of the Department's allocation planning work in the Warren-Donnelly river basins (Manjimup area).<sup>36</sup> This involved an examination of the procedures, practices and costs incurred by the Department in its allocation planning function for the Manjimup area, and a review of past studies conducted by and for the Department.

The case study concluded that, in the case of the Warren-Donnelly surface water area, the level of management response in allocation planning by the Department appears to have been appropriate and justified. In particular, the case study noted that:

- while the annual rainfall and run-off levels in the Warren-Donnelly catchments are high relative to other parts of the state, there are local sub-areas within the catchments where farm dam densities are very high by comparison to other parts of Australia. In these sub-areas, the interception of surface water by farm dams can significantly reduce stream flows in the summer and autumn months;
- hydrological studies by the Department have focussed on those parts of the catchment where surface water issues are most critical; and
- the development of a water allocation plan for the area has required a high level of engagement by the Department with water users in the area, and the collection of scientific evidence to support and justify any decisions on water allocations.

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<sup>36</sup> Resource Economics Unit, May 2010, *Report to the Economic Regulation Authority on the Department of Water's Approach to Determining Allocation Limits in the Manjimup Area for the ERA Inquiry into Water Resource Management and Planning Charges*.

### 3.4.3 Submissions

#### Accountability

A number of stakeholders expressed concern regarding the Department's accountability for its costs since the Department was unable to provide sufficient information on its efficient costs prior to the first Draft Report (WAFarmers, Water Corporation, Rio Tinto, Manjimup and Pemberton Landowners and associated submissions). Turf Growers Association WA supported transparency and accountability in fee setting.

Manjimup and Pemberton Landowners were concerned about the recovery from licence holders of up to \$30 million of the Department's costs (as proposed by the Department in its submission on the Issues Paper). The Landowners submitted that they could not see any value to the services provided by the Department in the Manjimup area.

The Department submitted that it accepts the need for accountability and cost efficiency and worked with consultants to establish the efficient costs of its services for its submission. The Department reviewed the level of effort required for different activities, based on the number of staff involved, and in some cases, such as licence application processing, recording the actual time involved in different types of licence applications.

#### Efficiency and Effectiveness

There was general support amongst other stakeholders for the view that any charges should be based only on efficiently incurred costs (Chamber of Minerals and Energy, Water Corporation, Manjimup and Pemberton Landowners, Turf Growers Association WA, Rio Tinto Iron Ore).

WAFarmers questioned the capacity of the Department to manage water resources, noting that groundwater resources in 84 sub-areas are close to or above full allocation. WAFarmers expressed concern that future charges would include the costs of addressing past allocation decisions.

WALGA identified a potential for efficiency savings in the handing over of licences from developers to local authorities, when a second application for the same licence is required.

The Department asked that the Authority reconsider the proposed reductions to the State Groundwater Investigation Program (**SGIP**) and the water monitoring network maintenance program, as it rejects the findings of the PwC report that these areas of expenditure are inefficient. The Department maintains that:

- the SGIP is of fundamental importance to the Department's activities, is properly planned and delivered at least cost, and that past cost overruns have been due to factors outside the control of the Department (including increased drilling costs and delays during the mining boom);
- maintenance of the state groundwater and surface water monitoring network is fully warranted, properly planned and prudent. Expenditure is overseen by a steering committee and is carefully targeted to improve efficiency in data collection.

The Department does not agree that cost-benefit analysis should be applied routinely to operational decisions, but does apply it for projects involving high expenditure or risk.

Rio Tinto queried whether the costs of the Department's new responsibilities (including introduction of perpetual water access entitlements, entitlement registers, water trading) had been factored into the proposed fees and charges. Rio Tinto submitted that the proposed Water Resources Management Bill is progressed sufficiently for the impact on charges of such increased administrative functions to be considered, or a process to address the issue to be proposed.

The Chamber of Minerals and Energy also submitted that the fees and charges should take into account any additional costs to the Department associated with additional responsibilities under the forthcoming legislation.

The Manjimup and Pemberton Landowners:

- object to the level of total costs identified for cost recovery, which they note is over five times the total of \$5.8 million of cost recovery sought in the previously disallowed fees;
- disagree with the conclusions of the case study by the REU, which reviewed and generally endorsed the Department's approach to water allocation planning and management in the Warren-Donnelly area;
- do not support the Warren-Donnelly Surface Water Allocation Plan, published by the Department in August 2010, because they do not consider that it provides sufficient water for agriculture in the area, and submit that for most rivers in the area the average annual flow allocated to agriculture be double that of those in the plan. The Manjimup and Pemberton Landowners submit that the plan is based on poor scientific analysis and erroneous (too high) rainfall assumptions, overestimates the negative impacts of farm dams on the environment and underestimates the positive impacts (such as providing refuge habitats for native birds) and that there was insufficient consultation with licence holders and the local community.<sup>37</sup> The Manjimup and Pemberton Landowners' submission in response to the Warren-Donnelly draft plan is included as an attachment to its submission to the Authority; and
- submitted that the costs of water resource management could be greatly reduced if carried out by regional management committees (such as the Warren Donnelly water advisory committee) on behalf of the Department. This was supported by vegetablesWA and the Potato Growers Association of WA.

DAFWA submitted that the efficient costs estimated by the Authority suggest that the Department cannot justify its level of expenditure or allocation of overheads, and demonstrates the need for independent review of the Department's costs. DAFWA express concern about the effectiveness of the Department's work, particularly in relation to the level of effort in the Warren-Donnelly area, issues that DAFWA did not feel were adequately addressed by the report by the REU (the scientific validity of water allocations; the lack of a defined process for considering economic, social and cultural values; and the effectiveness of community consultation). DAFWA also submitted that the evidence of the Department's inherent risk aversion, noted in the PwC report, suggested an endemic issue of inefficient levels of effort in licence applications.

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<sup>37</sup> See also the Manjimup and Pemberton Landowners' submission on the Discussion Paper.

The Shire of Nannup submitted that the network of gauging stations is inadequate for the accurate modelling of water flows in streams throughout the catchments in the Nannup area.

### **3.4.4 Authority Assessment**

#### **Accountability**

In general, the Authority notes that Quantum was not able to determine any steps undertaken by the Department in any of the activities that cannot be justified, either in terms of fulfilling the legislative requirements, collecting and assessing information, providing sufficient checks and balances on Departmental decisions, or providing an audit trail.

However, the absence of clear processes for allocating overheads to activities is of concern.

The Authority notes from the Quantum analysis that the process for dealing with licence applications that are classified as “low risk” are considerably simpler than ones for medium or high risk applications (which have similar processes). This means that, if licence application charges are set to reflect the level of effort involved, the criteria used to determine whether a licence application is low risk or medium-high risk becomes very important.

The Authority encourages the Department to publish information on what is involved in providing its services and the processes by which activities are carried out, in a format that is user-friendly for any customers being charged for a service.

#### **Efficiency and Effectiveness**

The Authority acknowledges that any examination of the effectiveness and efficiency of the Department as a water resource manager is likely to be difficult. Firstly, it is hard to make comparisons between different agencies, as the nature of water resource management activities is that they are often specific to local conditions, with costs driven by local water resource conditions and constraints. Secondly, the Department has never been required to scrutinise the costs of its activities to the degree necessary to support cost recovery. This has meant that systems to monitor costs of specific activities have had to be established to provide information for this inquiry and will need to be further developed to provide ongoing monitoring of costs. These factors have made it difficult to draw many firm conclusions on the effectiveness and efficiency of the Department.

The Authority also notes significant progress by the Department in recent years towards addressing shortfalls identified in earlier reviews (such as the Auditor General’s report in 2003), including the increased effort in developing allocation plans and reducing the backlog in processing of licence applications. The Authority also notes that the level of corporate overheads incurred by the Department appear reasonable.

However, the PwC review identified some broad areas in which there appears to be scope for further efficiency improvements. The Authority notes that planning of expenditure (particularly capital expenditure), in relation to achieving defined strategic objectives, could be improved. The adjustments to capital expenditure and operating expenditure recommended by PwC are significant. However, the Authority considers that it is appropriate for any new fees and charges to be based on costs where there is a high degree of confidence that they have been efficiently incurred. There is a chance that this

approach could result in an under-recovery of efficient costs from private parties, with the remainder of actual costs incurred being recovered from public funds. However, this could be seen as a precautionary approach to cost recovery until the Department has improved its systems of cost information management and collection to improve the certainty about the efficient cost base of its activities.

The case study of allocation planning in the Warren-Donnelly surface water area has provided the Authority with a further check on the level of activity by the Department with regard to allocation planning. This area was chosen as a case study since the Manjimup and Pemberton Landowners had submitted that the Department does not provide any services that benefit the businesses in their area and that there is no evidence that licensing services are necessary in what they consider to be a water abundant region.<sup>38</sup>

The case study undertaken by the REU concluded that, in the case of the Warren-Donnelly surface water area, the level of management response in allocation planning by the Department appears to have been appropriate and justified.

The Authority is not in a position to query the validity of the Department's decisions on water allocation limits (which are disputed by the Manjimup and Pemberton Landowners), or the science on which they are based.<sup>39</sup> The Authority notes that the development of water allocation plans is carried out by the Department in accordance with a public process, involving several stages of public consultation, including by written submissions, meetings stakeholders and public forums. The consultant reports on which the Department bases its decisions on water allocation management plans and allocation limits are also generally publicly available.

A further issue is the treatment of external revenues. The Department received \$6.4 million in external revenues across the 24 activities, with the majority of this in the activities of groundwater assessment, investigation and review (\$4.2 million), water information collection (\$1.1 million) and allocation planning (\$0.97 million). The PwC review concluded that much of this funding was deployed as capital expenditure.

The Department in its submission included costs funded by external revenues on the grounds that the services provided by the external funds would continue to be provided under a regime of cost recovery and would therefore need to be paid for. However, the Authority considers that when setting fees and charges, the costs of actuals funded by external revenues should be removed. The PwC study found that there is a weak link between the use of external funds and pre-determined policy objectives. Further, the evidence of efficiency in the use of external funds is relatively weak, such as in the case of significant budget overruns in groundwater investigation projects. The Authority's position is therefore that any fees and charges that are imposed should recover only those costs the Department incurs in providing services, and not those funded from external sources. If additional costs are incurred in the future once external funding is exhausted, the Department can submit to the Authority at the appropriate time should it wish to continue with a particular activity.

There is an issue regarding the service of providing water information, in which the Department provides data to private and public parties upon request. The Department is compelled under the *Commonwealth Water Act 2007* to provide water information to the

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<sup>38</sup> Manjimup and Pemberton Landowners submission on the Issues Paper.

<sup>39</sup> For example, in response to the Landowners' comments on the benefits of farm dams, the Authority's view is that all impacts on the environment – positive or negative – need to be taken into account when assessing environmental costs. However, the Department has informed the Authority that any positive impacts associated with water use are taken into account in the development of allocation plans and the setting of allocation limits in each region, and that stakeholders are consulted as part of this process.



Bureau of Meteorology (**BOM**) promptly (the costs of this information collection and transfer are captured under the activity of Water Information Management). The Department notes in its cost submission that in future, the BOM intends to publish this information free of charge through its Australian Water Resource Information System. In this event, it would not be feasible for the Department to impose fees for water information requests, where the same information is available elsewhere at no cost.

Equally, it would not be efficient for the Department to be engaged in the activities of answering queries if the provision of such information is duplicated by BOM. The Authority therefore recommends that, where water information is provided by BOM, the Department should stop providing information to private and public parties and instead direct them to publicly available sources. Accordingly, the resourcing of this service should be reduced to reflect the reduction in the costs of providing the service.

### **Conclusion on Efficient Costs of Activities**

The Authority has considered the PwC review, the comments on it by the Department, and PwC's response to the Department's comments (see **Appendix E**). However, the Authority does not consider that there are sufficient grounds to warrant a change in its recommendations, set out in the Second Draft Report, on the efficient levels of expenditure for the activities being considered. This is because the Authority's assumptions on efficient expenditure are intentionally conservative, to reduce the risk of recovering inefficient expenditure from private parties.

It is acknowledged that there is a some uncertainty regarding the level of expenditure in some activities (as estimates are based on those for 2008-09), that cost estimates do not take into account forward estimates of anticipated costs, and that the conclusions drawn by PwC do not necessarily indicate inefficiency in any activity, but rather a lack of firm evidence of efficiency. The Authority would expect the information would be available for the next review by the Authority.

To determine the cost base for cost recovery, the Authority has had regard to the advice provided by its consultants in reviewing the processes, effectiveness and efficiency of the Department and the Department's comments on those reviews, as well as the principles for cost recovery outlined in the first report. In deriving an estimate of the efficient costs of the Department's activities, to provide a basis for cost recovery, the Authority has made the following adjustments to the Department's 2008-09 costs:

- External revenues spent in 2008-09 have been deducted from the recoverable costs. As external revenues have tended to fund capital expenditure programs, the Authority has deducted external revenues for each activity first from capital expenditure, where there is a capital expenditure component, and then from operating expenditure.
- Operating expenditures have been reduced by 20 per cent on the 2008-09 operating costs for each activity.
- Capital expenditure in the activities of groundwater assessment, investigation and review, and water information collection has been reduced by 25 per cent each on the 2008-09 capital expenditure costs. Capital expenditure for metering has not been reduced, as these costs appear to be efficient.
- Overhead costs have been reduced by 5 per cent on the 2008-09 figures. Although PwC's review concluded that the Department's overhead costs appeared to have been incurred efficiently, it suggested that overhead costs should be reduced by 5 per cent per annum to achieve ongoing efficiency gains.

In adopting PwC's recommended adjustments, the Authority is not suggesting that the Department is necessarily operating inefficiently or that it should reduce its number of full time equivalents. However, the Authority believes that a margin of error is required so that no inefficient costs are being passed on to customers.

The Authority's estimated efficient costs that should be recovered, based on the adjustments to the Department's cost estimates that were discussed before, are summarised in Table 3.3. The Department's cost estimates that were provided in its cost submission are also summarised to show the adjustments that have been made to the different activity costs.

**Table 3.3 Department of Water's Cost Estimates and Authority's Estimate of Efficient Cost Base**

Activity to be Costed	Department of Water Estimates (\$)			Authority Assessment (\$)		
	Direct Cost	Overheads	Total Cost	Efficient Direct Costs	Efficient Overheads	Efficient Total Costs
Water licensing and compliance	5,047,313	2,784,235	7,831,548	4,037,850	2,645,023	6,682,874
Water licensing support	878,658	334,784	1,213,442	702,926	318,045	1,020,971
Regional hydrogeological advice (2009/10 est)			441,160			
Surface water assessment	621,357	149,286	770,643	497,086	141,822	638,907
Water allocation planning	2,795,917	749,919	3,545,836	1,481,241	712,423	2,193,664
Environmental water planning	2,524,990	597,325	3,122,315	1,936,786	567,459	2,504,244
Water licensing policy	1,695,837	191,558	1,887,395	1,356,670	181,980	1,538,650
Enforcement	482,004	139,315	621,319	385,603	132,349	517,952
Groundwater assessment, investigation and review	9,021,978	681,828	9,703,806	3,706,565	647,737	4,354,301
Water information collection **	7,760,884	2,533,315	10,294,199	5,203,432	2,406,649	7,610,082
Water information management	1,175,926	504,567	1,680,493	841,243	479,339	1,320,582
IWSS licensing	237,139	87,072	324,211	189,711	82,718	272,430
Metering	2,573,092	381,877	2,954,969	2,478,074	362,783	2,840,857
Water source protection planning	849,024	257,412	1,106,436	679,219	244,541	923,761
Acquisition of P1 land	2,721,700		2,721,700	2,721,700		2,721,700
Land assessment management	277,397	60,427	337,824	221,918	57,406	279,323
Preparation of guidance notes	657,067	194,409	851,476	525,654	184,689	710,342
Implementation of water source protection plans	447,096	246,914	694,010	357,677	234,568	592,245
Statutory referrals	985,021	439,180	1,424,201	788,017	417,221	1,205,238
Drainage and water management planning	1,541,744	126,521	1,668,265	1,233,395	120,195	1,353,590
Arterial drainage studies	1,237,649	270,494	1,508,143	990,119	256,969	1,247,089
Floodplain management advice	580,409	147,891	728,300	462,550	140,496	603,046
Water information provision	393,022	160,132	553,154	314,418	152,125	466,543
<b>Total</b>	<b>44,505,224</b>	<b>11,038,461</b>	<b>55,984,845</b>	<b>31,111,852</b>	<b>10,486,538</b>	<b>41,598,390</b>

\*\*90 per cent of water information collection costs are for surface water information collection (\$9,264,779 in 2008/09) and 10 per cent are for groundwater collection (\$1,029,420 in 2008/09).

Source: Department of Water cost submission and Authority analysis.

## 3.5 Allocation of Activity Costs to Services and Private Parties

In the previous section, the Authority assessed the accountability, effectiveness and efficiency of the Department's activities and costs. This section is concerned with the next two steps in determining the costs that can be recovered from private parties.

Firstly, the costs of each of the services provided by the Department (the activities and associated efficient costs that were assessed in Section 3.4 contribute to nine services) have to be determined by allocating the costs of the activities across the services which they support.

Secondly, the costs of each service that can be recovered from private parties should be reduced by any costs associated with the provision of public goods, or services to private parties who cannot be identified.

The Authority's assessment of recoverable costs differs from the Department's estimates, firstly due to the initial cost base as shown in Table 3.3 (\$41.6 million versus \$56.0 million as outlined in the previous section), and secondly due to the assumptions made regarding the allocation of those costs to services and private parties.

### 3.5.1 Department of Water's Allocation of Activity Costs to Services and Private Parties

The Department's allocation of costs to services and assumptions about private versus public goods can be seen in Table 3.2 in Section 3.3.2. This table shows that, of the Department's estimated total cost of activities of \$56.0 million:

- \$46.3 million could be allocated to the services identified for potential cost recovery; and of this amount
- \$39.8 million could be allocated to private parties who could be identified.

In terms of allocating activity costs to services, the Department identified many of the activities as being carried out exclusively for the provision of a single service (e.g. 100 per cent of the costs incurred for the activities of water licensing and compliance, water licensing and support and regional hydrological assessment are incurred as part of the service of processing and assessment of licence applications). However, a few activities are carried out more generally across the Department and are used to support a number of services. The Department's estimated allocations of activities to services are illustrated in Table 3.4.

**Table 3.4 Department of Water's Allocation of Activities to Services**

Activity	Processing and Assessment of Applications for Water Licences and Permits (Upfront Payment) (%)	Providing Water Allocations and Managing the Ongoing Use of Water (Annual Payment) (%)	Licensing of the Water Corporation for the IWSS (%)	Protecting Public Drinking Water Sources (%)	Providing Advice on Statutory Referrals (%)	Guiding Urban Drainage and Water Management (%)	Providing Floodplain Management Advice (%)	Providing Water Information (%)	Water Metering (%)	Total (%)
Water licensing & compliance	100									100
Water licensing support	100									100
Regional hydrogeological advice	100									100
Surface water assessment	10	80								90
Water allocation planning		100								100
Environmental allocation planning		100								100
Water licensing policy		100								100
Enforcement		100								100
Groundwater assessment, investigation & review		90		5		5				100
Groundwater information collection		70								70
Surface water information collection		15								15
Water information management		30								30
IWSS licensing			100							100
Water source protection planning				100						100
Acquisition of P1 land				100						100
Land assessment management				100						100
Preparation of guidance notes				50	50					100
Implementation of water source protection plans				20	80					100
Statutory referrals					100					100
Drainage and water management planning						100				100
Arterial drainage studies						100				100
Floodplain management advice							100			100
Water information provision								100		100
Metering									100	100

In terms of private versus public goods or services, the Department submitted that for six of the nine services listed below, all (100 per cent) of the costs could be recovered from private parties that can be identified:

- processing and assessment of licences (from licence applicants);
- IWSS licensing (from the Water Corporation);
- water metering (from metered users on the Gngangara Mound and Carnarvon Groundwater Area);
- protecting public drinking water sources (from water service providers);
- providing advice on statutory referrals (from WAPC or local government agencies seeking this advice); and
- providing floodplain management advice (from WAPC or local government agencies seeking this advice).

For the other three services, the Department's view was that there were public good elements that would reduce the costs to be recovered from private parties. The Department submitted that:

- In providing water allocations and managing the ongoing use of water, the costs of water licensing policy and enforcement should be fully recovered from water allocation holders, as these costs were incurred exclusively for these private parties. However, for the other activities involved in this service (water allocation planning, environmental water planning, assessment and information collection on water resources, and water information management), while the majority of costs could be attributed to water allocation holders (80 per cent), a small proportion could be viewed as being provided for parties that could not be identified (e.g. recreational users, non-licensed water users, future water users, and a small amount of work carried out in non-proclaimed areas).
- In guiding urban drainage and water management, all the costs associated with arterial drainage studies could be attributed to identifiable private users (land holders and developers in existing urban areas). However, the activities of drainage and water management planning, and the assessment of groundwater resources as part of drainage and water management, are often associated with future urban planning at the strategic level so the parties cannot be identified.
- Half of the users of the service of water information provision are from the private sector (consultants and companies), while the remainder are from federal, state and local governments, universities and non-government organisations. The Department has therefore identified half of the costs as suitable for recovery.

### 3.5.2 Authority Assessment

In the Second Draft Report, the Authority accepted the Department's recommended allocation of the costs of the 24 activities to each of the nine services (as shown in Table 3.4).

- For those activities which relate directly and exclusively to the provision of a particular service, it is evident from the description of these services, and the Authority's understanding of the nature of these activities from discussions with the Department, that there is a clear link to those services.

- For other activities, which are shared across services (e.g. surface water assessment, groundwater assessment, investigation and review, water information collection), it is more difficult to assess the precise allocation of activity costs to services without carrying out a detailed and comprehensive cost audit, especially as the Department's cost information is categorised by activity and not by service.
- However, the process review carried out for the Authority by Quantum confirmed that the activities identified contributed to the services to which they have been allocated. The shares of costs allocated to different services appear consistent with the Authority's understanding of the nature of the services provided.

In assessing, for each service, whether there is a component of public good costs that should not be recovered from private parties, the Authority drew on the principles for distinguishing between private and public goods (see Section 2.3.1). It should be noted that there are a range of activities carried out by the Department which have been previously identified as being entirely in the nature of public goods that have not been considered for cost recovery in this inquiry (for example, strategic policy development, indigenous and remote community services and support, salinity recovery and engineering – see **Appendix D** for a full listing of the Department's activities).

Of the services identified as having some component of private good, the Authority accepted the Department's view that particular services are provided exclusively for private parties who can be identified (i.e. processing and assessment of licences; water licensing policy and enforcement; IWSS licensing; water metering; protecting public drinking water sources; providing advice on statutory referrals; arterial drainage studies; and providing floodplain management advice). These services would not be, and are not, provided for parties other than the recipients of those services. Further, those requesting or requiring the services can be identified, and fees and charges can be levied.

The Authority also accepted the view that the activities of drainage and water management planning and groundwater assessment as part of the Department's service of guiding urban drainage and water management are of a high level, regional and strategic nature. These activities are often aligned with planning for future urban development and it is difficult to identify the parties for whom the service is being provided. It is therefore not appropriate or feasible to recover the costs of these activities from private parties.

The Authority's view regarding the public good component of a number of allocation planning activities<sup>40</sup> was that the private good component of the activities may be slightly less than the 80 per cent share suggested by the Department.

- As part of allocation planning, the Department undertakes assessments to determine environmental water use requirements and environmental or social impacts of water use. The consideration of environmental and/or social impacts benefits parties other than the water allocation holders (who are the private parties that can be identified).<sup>41</sup> These activities would not be carried out if not for the environmental values and standards imposed by these parties and the broader community.

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<sup>40</sup> These are water allocation planning, environmental water planning, surface water assessment, groundwater assessment, investigation and review, water information collection, and water information management.

<sup>41</sup> Other parties which may benefit from allocation planning include current and future residents and recreational users in allocation plan areas.

- Several submissions have noted the public good aspects to allocation planning activities. Rio Tinto agreed with the Authority's assessment that there is an element of public benefit in water allocation planning which needs to be allocated accordingly. The Manjimup and Pemberton Landowners submitted that the water resource management activities undertaken by the Department, including planning, are essential services that should be undertaken and funded by the government (that is, all of these activity costs are considered to be of benefit to the wider community).
- The NSW regulatory agency, the Independent Pricing and Regulatory Tribunal (**IPART**), used a public/private cost share ratio of 30/70 for the activities of water sharing plan development and water use plans. This ratio reflects the principle that these activities are principally directed at monitoring, evaluation and planning driven by extraction quantities or extractive use, but that a lesser component of costs is associated with maintaining standards demanded by the community.

While it is still the case that the majority of allocation planning activities are carried out for, and because of, water allocation holders, the Authority's view was that a private good cost share of 70 per cent would better reflect the degree to which allocation planning activities are carried out to meet broader community standards (e.g. environmental, social, health).

### *Submissions on the Second Draft Report*

The Department supported the Authority's recommendation in the Second Draft Report that the public good component for allocation planning activities should be increased from 20 to 30 per cent.

WALGA submitted that there is a public good component to these activities, but did not propose what proportion of costs should be recovered from public funds.

Manjimup and Pemberton Landowners maintained that 100 per cent of water allocation planning and management is for the public good and should be paid for out of consolidated funds.

Rio Tinto submitted that costs associated with the protection of public drinking water sources are in the nature of public goods and should be funded out of consolidated revenue.

The Shire of Nannup submitted that the beneficiaries of environmental planning and management services are the general public. The Shire also submitted it is counter-productive to set charges for cross-agency co-operation in meeting state planning objectives.

The Pastoralists and Graziers Association submitted that all policy and planning costs, and all costs associated with environmental water management and provision, should be funded by government.

WALGA submitted that the services provided by the Department for sub-division and development applications, clearance of sub-division conditions, and local planning proposals should be seen as public goods and funded accordingly.

The Water Corporation and WALGA submitted that drainage management activities are in the nature of a public good and should be funded by consolidated revenue. WALGA also considers that floodplain management activities are in the nature of public goods.

## Authority Assessment

The Authority does not accept the view by Manjimup and Pemberton Landowners that all water allocation planning and management activities are a public good and should be publicly funded. These activities are clearly driven to a large extent by the presence of water allocation holders, and are services provided to these identifiable private parties to provide them with these entitlements to use water, while ensuring that their use of the water resources does not cause impacts that are unacceptable to society.

Likewise, public drinking water source protection is carried out, ultimately, on behalf of water customers, from whom the costs should be recovered.

The Authority also considers that environmental planning work is another service carried out mainly for allocation holders. While environmental standards are set by the wider community, the environmental planning activities carried out as part of the development of water allocation and management plans are driven by a need to determine the sustainable allocation limits available to water users. While a small component of these activities could be considered as being for the wider community, the majority of them would not be carried out at all if there were no allocation holders present.

Licensing policy activities are another activity that are clearly carried out for licence holders (e.g. policies on the procedures for processing different types of licence applications). Such policy work is not to be confused with strategic policy work (e.g. broad State or regional policies on water resource management objectives), which are not for cost recovery.

However, as discussed in Section 2.3.1.1, it is likely that the component of public good in water allocation planning and the ongoing management of water use varies between regions. For example, in some regions a larger proportion of effort by the Department may be caused by the need to maintain environmental values in sites of particular importance to recreational users, or to restore damage resulting from historical land-use decisions. Therefore, while the Authority considers that 30 per cent is a reasonable approximation of the public good component of allocation planning costs, it is possible that this ratio may be higher, or lower, in some regions, depending on the types of water users, environmental issues, water use impacts and other considerations. It is recommended that the Department's development of allocation plans for each area incorporate an assessment of the proportions of costs being incurred for different parties (public and private). A case can be made as to why the public good component should differ from 30 per cent. The Department should also collect more information in the development of its allocation plans for each area to determine the cost of each plan.

Several stakeholders submitted that the activities where the Department provides advice to other parties (on statutory referrals, floodplain management and arterial drainage studies) had a high degree of public good. However, the advice provided by the Department in these three activities is generally provided to specific private parties (such as local councils or developers) and costs should be recoverable from the end customer (e.g. councils can recover costs from their rate payers, developers can pass on the costs to their land buyers).

- However, the Authority accepts that advice that is provided by the Department as part of broader strategic, regional or district planning should not be considered for cost recovery. These activities account for around 15 per cent of the Department's costs for statutory referrals (see Section 7.2 for further discussion). The Authority recommends cost recovery of 85 per cent of the costs of statutory referrals.



For the service of water information provision, the Authority considers that a 50 per cent recovery of these costs is reasonable, based on the description of the service.

Based on the Authority's assessments (on the allocation of activity costs to services and to private parties), the efficient costs of each activities result in an overall total cost of \$27.7 million to be recovered from private parties (see below).

**Table 3.5 Summary of Service Costs to be Recovered (2008-09)**

Department of Water Estimates (\$)			Authority's Assessment (\$)		
Estimated Total Cost of Activities	Estimated Total Cost of Providing Services	Total Costs to be Recovered (Excluding Public Good)	Estimated Efficient Costs of Activities	Estimated Efficient Costs of Providing Services	Total Efficient Costs to be Recovered (Excluding Public Good)
55,984,845	46,277,288	39,755,591	41,598,390	34,336,619	27,676,569

Table 3.6 sets out the full calculation of costs for each activity and service. For consistency with the conservative approach adopted by the Authority, these costs do not include the administrative costs of billing that the Department might incur if fees and charges are implemented. As the indicated fees and charges are based on historical costs, the Department has not incurred any billing costs yet, and it has not provided any estimates to the Authority for consideration.

If fees and charges for water resource management and planning services are implemented, and another review of the Department's activities and costs is undertaken, any efficient costs that are incurred by the Department that are associated with billing customers would need to be considered for inclusion at that time.

**Table 3.6 Estimated Service Costs for Recovery**

Service	Contributing activities	Department of Water Estimates					Authority Assessment				
		Estimated Total Cost of Activity	Per Cent Contribution of Activity to Service	Estimated Total Cost of Service	Per Cent Private Benefit	Costs to be Recovered	Estimated Efficient Cost of Activity	Per Cent Contribution of Activity to Service	Estimated Efficient Costs of Services	Per Cent Private Benefit	Efficient Costs to be Recovered
Processing and assessment of applications for water licences and permits	Water licensing and compliance	7,831,548	100%	7,831,548	100%	7,831,548	6,682,874	100%	6,682,874	100%	6,682,874
	Water licensing support	1,213,442	100%	1,213,442	100%	1,213,442	1,020,971	100%	1,020,971	100%	1,020,971
	Regional hydrogeological advice	441,160	100%	441,160	100%	441,160		100%		100%	
	Surface water assessment	770,643	10%	77,064	100%	77,064	638,907	10%	63,891	100%	63,891
	<b>Sub-total:</b>			<b>9,563,214</b>		<b>9,563,214</b>			<b>7,767,736</b>		<b>7,767,736</b>
Providing water allocations and managing the ongoing use of water	Water licensing policy	1,887,395	100%	1,887,395	100%	1,887,395	1,538,650	100%	1,538,650	100%	1,538,650
	Enforcement	621,319	100%	621,319	100%	621,319	517,952	100%	517,952	100%	517,952
	Water allocation planning	3,545,836	100%	3,545,836	80%	2,836,669	2,193,664	100%	2,193,664	70%	1,535,565
	Environmental water planning	3,122,315	100%	3,122,315	80%	2,497,852	2,504,244	100%	2,504,244	70%	1,752,971
	Surface water assessment	770,643	80%	616,514	80%	500,918	638,907	80%	511,126	70%	357,788
	Groundwater assessment, investigation and review	9,703,806	90%	8,733,425	80%	6,792,664	4,354,301	90%	3,918,871	70%	2,743,210
	Surface water information collection	9,264,779	15%	1,389,717	80%	926,478	6,849,073	15%	1,027,361	70%	719,153
	Groundwater information collection	1,029,420	70%	720,594	80%	566,181	761,008	70%	532,706	70%	372,894
	Water information management	1,680,493	30%	504,148	80%	420,123	1,320,582	30%	396,175	70%	277,322
<b>Sub-total:</b>			<b>21,141,263</b>		<b>17,049,599</b>			<b>13,140,749</b>		<b>9,815,505</b>	
Licensing of the Water Corporation for the IWSS	IWSS licensing	324,211	100%	324,211	100%	324,211	272,430	100%	272,430	100%	272,430
<b>Sub-total:</b>			<b>324,211</b>		<b>324,211</b>			<b>272,430</b>		<b>272,430</b>	
Water metering	Water metering	2,954,969	100%	2,954,969	100%	2,954,969	2,840,857	100%	2,840,857	n/a*	1,615,758
<b>Sub-total:</b>			<b>2,954,969</b>		<b>2,954,969</b>			<b>2,840,857</b>		<b>1,615,758</b>	
Protecting public drinking water sources	Water source protection planning	1,106,436	100%	1,106,436	100%	1,106,436	923,761	100%	923,761	100%	923,761
	Groundwater assessment, investigation and review	9,703,806	5%	485,190	100%	485,190	4,354,301	5%	217,715	100%	217,715
	Preparation of guidance notes	851,476	50%	425,738	100%	425,738	710,342	50%	355,171	100%	355,171
	Implementation of water source protection plans	694,010	20%	138,802	100%	138,802	592,245	20%	118,449	100%	118,449
	Acquisition of P1 land	2,721,700	100%	2,721,700	100%	2,721,700	2,721,700	100%	2,721,700	100%	2,721,700
	Land management	337,824	20%	67,565	100%	67,565	279,323	20%	55,865	100%	55,865
<b>Sub-total:</b>			<b>4,945,431</b>		<b>4,945,431</b>			<b>4,392,660</b>		<b>4,392,660</b>	
Providing advice on statutory referrals	Statutory referrals	1,424,201	100%	1,424,201	100%	1,424,201	1,205,238	100%	1,205,238	85%	1,024,452
	Implementation of water source protection plans	694,010	80%	555,208	100%	555,208	592,245	80%	473,796	85%	402,727
	Preparation of guidance notes	851,476	50%	425,738	100%	425,738	710,342	50%	355,171	85%	301,895
	<b>Sub-total:</b>			<b>2,405,147</b>		<b>2,405,147</b>			<b>2,034,205</b>		<b>1,729,074</b>
Guiding urban drainage and water management	Drainage and water management planning	1,668,265	100%	1,668,265	0%		1,353,590	100%	1,353,590	0%	
	Arterial drainage studies	1,508,143	100%	1,508,143	100%	1,508,143	1,247,089	100%	1,247,089	100%	1,247,089
	Groundwater assessment, investigation and review	9,703,806	5%	485,190	0%		4,354,301	5%	217,715	0%	
	<b>Sub-total:</b>			<b>3,661,598</b>		<b>1,508,143</b>			<b>2,818,394</b>		<b>1,247,089</b>
Providing floodplain management advice	Floodplain management advice	728,300	100%	728,300	100%	728,300	603,046	100%	603,046	100%	603,046
	<b>Sub-total:</b>			<b>728,300</b>		<b>728,300</b>			<b>603,046</b>		<b>603,046</b>
Providing water information	Water information provision	553,154	100%	553,154	50%	276,577	466,543	100%	466,543	50%	233,272
<b>Sub-total:</b>			<b>553,154</b>		<b>276,577</b>			<b>466,543</b>		<b>233,272</b>	
<b>Totals:</b>				<b>46,277,288</b>		<b>39,755,591</b>			<b>34,336,619</b>		<b>27,676,569</b>

\* Not applicable as 2010-11 data has been used to estimate data metering service costs (see section 5)

### Allocation of Costs to Private Parties

12) The Authority considers that the proportions of efficient costs that can be attributed to identifiable private parties is:

- 100 per cent for the activities of:
  - assessing and processing licence and permit applications;
  - water licensing policy and enforcement;
  - licensing of the Water Corporation for the IWSS;
  - meter licensing (for customers on the Department metering program), except for 30 per cent of the costs of metering data services, which contribute to allocation planning in those areas;
  - protecting public drinking water sources; and
  - arterial drainage studies and floodplain management, where these are not part of strategic, regional or district planning;
- 70 per cent for the activities of water allocation planning and management (i.e. water allocation planning, environmental water planning and supporting activities of surface water assessment, groundwater assessment, investigation and review, groundwater information collection and water information management);
- 85 per cent for statutory referrals; and
- 50 per cent for water information provision.

### Accountability, Effectiveness and Efficiency in Water Resource Management and Planning Activities

13) The Authority estimates that in 2008-09 the Department incurred a total of \$27.7 million of costs that is considered to be efficiently incurred on behalf of identifiable private parties and provides an appropriate basis for service fees and charges.

## 4 Water Licensing Fees and Charges

### 4.1 Background

The services provided by the Department to licence holders includes the assessment and processing of licence and permit applications and renewals. In addition, there are ongoing costs associated with managing licences, including assessing and enforcing compliance, and managing water allocations through allocation and environmental water planning, groundwater and surface water assessment, and water measurement and information.

In this section, the method for recovering the efficient costs that have been incurred by the Department in providing services to water licence holders is considered. Indicative charges that should apply to water licence holders are also provided, which are based on the Authority's preferred methods for recovering the efficient costs that were established in Section 2.

The Department deals with over 3,000 applications for licences or permits every year. This service includes the activities that are involved in assessing these applications and issuing the licence or permit. It also includes the maintenance of licensing processes and support systems.

There are 13,156 water use licences in force (as at 31 December 2010), covering 748 groundwater resources and 270 surface water resources throughout Western Australia.

When an application is lodged for a licence or permit, or renewal or amendment of a licence or permit, the Department incurs costs associated with:

- assessing and processing that application;
- establishing the amount of water that can be safely allocated to the licence or permit holder (including assessing impacts on the environment and other users); and
- setting licence conditions and operating strategies.

These are the up-front costs of water licensing that are associated with applications. According to the Department, these costs will vary from application to application, depending on the complexity of the water issues involved.

Once a licence has been allocated, there are ongoing costs to the Department in monitoring the licence and ensuring compliance with licence conditions. There are also other activities which are carried out on an on-going basis to protect the security of licence holders' entitlements, by determining the available water resources. These activities include:

- allocation planning and environmental water planning (i.e. the work carried out to determine environmental water requirements, water use impacts and water allocation limits in each water management area);
- water licensing policy (for example, the development of operational guidelines for licensing officers to assess the risks of different types of licences, or procedures for enforcing compliance with licence conditions); and

- groundwater and surface water assessment, and water measurement and information.

The key principle applied by the Authority to identify which water resource management and planning costs should be recovered from licence holders is that the costs are related to activities that are carried out for, and because of, licence holders – to provide them with secure water entitlements – should be recovered from them.

Applying this principle to water licensing:

- Efficient costs incurred by the Department that are directly related to the provision of licences should be recovered from licence holders.
- Charges to licence holders should reflect, as closely as practicable, the efficient costs of services provided by the Department in the issuing and monitoring of those licences:
  - Costs associated with the processing and assessment of applications be recovered through an up-front application charge.
  - Costs associated with on-going water resource management and planning activities related to licences (i.e. compliance monitoring and enforcement, allocation planning, environmental water planning, water licensing policy, ground water and surface water assessment, and water measurement and information) be recovered through an annual charge.
- The activities of allocation planning, environmental water planning, groundwater and surface water assessment, and water measurement and information have a “public good” component, as the information they produce is of benefit to the wider community, to other users who cannot be identified and to future users. The Authority recommended that 30 per cent of the costs of these activities be allocated to the general public.

### 4.1.1 *Approaches Considered*

A number of different approaches to charges for licence holders were considered in the first Draft Report:

- A “fee for service” approach, where licence holders would pay an application fee reflecting the complexity of the services provided by the Department in processing their application, and an annual fee to recover ongoing water resource management and planning costs.
- A “volume by catchment” approach, where licence holders would pay an application fee and an annual charge, both based on the volume of the application and degree of allocation of water resources in the catchment.
- Charges based on the size of a licence, where the fees for licence applications and renewals would be minimal while the annual fee would increase with the volume category of the applicant.
- A volumetric charge, where the total costs of water licensing are divided by the total volume of water allocations to derive a charge (\$ per ML allocation) which would be applied to all licence holders. Small users with allocations below 2 ML would not be charged under this approach.

The Authority also outlined the approaches to cost recovery through licence fees adopted by the Western Australian Department of Fisheries and the New South Wales Office of Water (as determined by the Independent Pricing and Regulatory Tribunal).<sup>42</sup>

The Authority's preferred approach in the first Draft Report was the "fee for service" approach to licence charges, with an up front application fee reflecting the costs and complexity of assessing different licence applications (including the level of technical assessments, hydrological or hydrogeological assessments and operating strategies involved in a licence), and an annual charge reflecting the ongoing monitoring and planning costs for different licences.

However, the Department did not support the Authority's preferred approach to the "fee for service" charges (in which the administration charge is differentiated depending on the level of complexity of the licence assessments). The Department submitted that this approach would be costly to implement and manage, and may not capture the cost of future scarcity or environmental externalities. The Department's preference was for the simpler approach, in which both the administration fee and the annual charge are based on a matrix of licence size and percentage water allocation. The Authority accepted this approach in developing its recommended charges in the Second Draft Report.

## 4.2 Processing and Assessment of Applications for Water Licences and Permits

### 4.2.1 Department of Water's Cost Analysis

The Department, in its cost submission to the inquiry in September 2010, presented its assessment of the costs it incurs in the processing and assessment of different applications for water permits or licences. The Department submitted that all of these activities are carried out directly for identifiable private parties, i.e. the licence applicants.

#### *Establishing Levels of Effort*

A number of different applications for licences and permits (instruments) are assessed and determined by the Department:

- licences to take water (known as Section 5C licences), including new applications, renewals, amendments, transfers, trades and agreements;<sup>43</sup>
- permits to interfere with bed and banks of surface water systems;<sup>44</sup> and
- licences to construct or alter wells (known as Section 26D licences).<sup>45</sup>

The Department issued 3,346 instruments in 2008-09, and the number issued for each type of instrument is provided in Table 4.1. Information about the relative proportion of effort involved in processing the different types of instruments is also included in this table.

To determine the proportion of effort spent on different licensing activities, the Department established a three month time-keeping process for its licensing staff from two locations

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<sup>42</sup> First Draft Report, chapter 3.

<sup>43</sup> Issued under the *Rights in Water and Irrigation Act 1914 (RiWI Act)*, Part III (Control of Water Resources), Division 1A (Ownership and Control of Waters, Section 5C (Unauthorised taking of water prohibited).

<sup>44</sup> Issued under the RiWI Act, Part III, Division 1A, Sections 11, 17 or 21A.

<sup>45</sup> Issued under the RiWI Act, Part III, Division 1A, Section 26D.

(the Swan Region and Busselton offices). Staff recorded the proportion of effort involved in each of 10 identified process steps, as well as various details about the type and complexity of the application.

**Table 4.1 Number of Licensing Instruments Issued by Type and Proportion of Effort Involved**

Instrument Type	Number Issued 2008-09	Proportion of Effort (%)
New licence to take water	934	35
Renewal of licence to take water	940	26
Amendment of a licence to take water	534	16
Trade or transfer of a licence to take water	160	6
Licence to construct or alter a well	726	16
Permit to interfere with bed or banks	52	1
<b>Total</b>	<b>3,346</b>	<b>100</b>

Source: Department of Water, *Costing of Water Activities*, p38.

The Department analysed the information recorded as part of the time-keeping process, including the time taken to complete specific activities associated with processing and assessing applications for water licences. Table 4.2 shows the costs involved in undertaking activities that are common to all application types and the activities that may only apply to certain application types, or for which the proportion of effort is likely to differ across the application types.

**Table 4.2 Average Cost of Licensing Activities by Instruments (2008-09)**

Instrument Type	Common Admin Activities (\$)	Water Resource Impact Assessment (\$)	Hydro Assessment* (\$)	Operating Strategy (\$)	Site Survey (\$)	Total (\$)
New 5C	1,159	700	490*	383	831	3,563
Renewal 5C	1,028	339	325*	250	719	2,661
Amendments	1,231	469	364	216	651	2,931
Trade/Transfer	1,243	502	344	423	1,099	3,611
26D	1,076	445	207	317	0	2,045
Permits	994	307	211	53	493	2,059

Source: Department of Water, *Costing of Water Activities*, p39.

\* Note: Hydrogeological assessments are a requirement of 26D licences (to construct or alter a well) and not of 5C licences, but are processed as part of the related 5C licence application process. The Department has therefore included the costs of hydrogeological assessment in the costs of 5C licensing activities. Hydrogeological assessments may be required for complex surface water applications.

There are some assumptions and limitations to the data and approach adopted by the Department, which have made it difficult to undertake more detailed analysis of the cost of the different types of allocation processes and assessments.<sup>46</sup> Nevertheless, the Department has been able to undertake some analysis to differentiate the costs

<sup>46</sup> Department of Water submission (May 2010), *Costing of Water Activities*, p38.

associated with low, medium and high risk applications for new 5C licences and renewals of 5C licences.

The Department's methodology for assessing the risk of licences and permits is set out in its *Operational Policy No. 3 – Principles and Guidelines for Assessing Water Licence and Permit Applications in WA (February 2007)*. The primary factors for determining risk are the degree of water resource allocation in the water management area, and the volume and type of the licence. In addition, there are a range of triggers that can lead to a refinement of the level of assessment. For example, applicants that require water allocations in excess of 50 per cent of the remaining available water resources, or applications that would significantly affect local environmental values or other users, would be treated as high risk. For a fuller description of the risk assessment process and criteria, refer to the report by Quantum (12 March 2010), p9, published on the Authority's website.

The Department's analysis, and information about the different costs, is provided in the table below.

**Table 4.3 Relative Proportion of Effort per Licensing Instrument by Risk Category**

Instrument Type <sup>(a)</sup>	Average Total Hours	Number of Instruments	Total Hours	Proportion of Effort (%)
<b>New 5C</b>				
Low	11.94	422	5,042	33
Medium	21.95	198	4,346	28
High	19.06	314	5,982	39
<b>Total</b>		<b>934</b>	<b>15,370</b>	<b>100</b>
<b>Renewals</b>				
Low	12.19 <sup>(b)</sup>	754	9,190	77
Medium	15.51	88	1,372	11
High	14.68	98	1,435	12
<b>Total</b>		<b>940</b>	<b>11,996</b>	<b>100</b>

Notes:

(a) Risk categories take into account factors such as the level of resource allocation (C1 to C4), the potential for unacceptable impacts on other users or the environment, and the volume of water requested.

(b) The average amount of hours required to assess low risk licence renewals is greater than the average time taken to assess low risk new licences. The Department has suggested that this is due to a high proportion of C3 and C4 category applicants being reclassified at the low level of assessment for renewals.

Source: *Department of Water, Costing of Water Activities, p40.*

The data in Table 4.3 shows that, on average, a greater proportion of effort is required to assess medium risk licences than high risk licences. This is because applicants for high risk licences often submit greater levels of documentation, they may even have had a consultant involved, and have often undertaken and submitted their own hydrogeological assessments, which would typically well exceed the estimated licence applications and renewals costs (see Table 4.5). This results in a reduced information collection and assessment effort for the Department.



## 4.2.2 Proposed Charges in Second Draft Report

The Authority's proposed charges to recover the Department's efficient costs of processing and assessing new 5C licences and 5C licence renewals in the Second Draft Report are set out in Table 4.4. These charges reflected the different levels of effort for the Department in processing and assessing licence applications and renewals based on the risk category that the licence application falls into (depending on a number of factors, such as how much of a resource is allocated, how much water an applicant is applying for, and what the impact is on other users and the environment). When setting the risk level, the three key considerations for the Department are:

- the allocation limit in the management area both before and after consideration of the application;
- the size and type of application under consideration and factors associated with that, including the likely impact if the allocation is granted; and
- the likely decision based on the assessment undertaken. Where the assessment suggests that the application should be refused, the level of assessment is based on the highest level of risk regardless of other considerations. This means that a considerable effort is applied by the Department when it is assessing applications that are likely to be refused.

This risk assessment for licence applications is set out in more detail on page 9 in the report prepared for the Authority by Quantum (available on the Authority's website).

The Second Draft Report proposed application fees for new 5C licences and 5C licence renewals in Table 4.4 reflected the average costs per instrument for low, medium and high risk categories.

**Table 4.4 Authority's Draft Proposed Fees for New 5C Licence Applications and 5C Licence Renewal Applications (Second Draft Report)**

Instrument Type	Number of Instruments	Total Efficient Cost to be Recovered (\$)	Cost per Instrument (\$)
<b>New 5C Licence</b>			
Low	422	886,714	2,101
Medium	198	764,312	3,860
High	314	1,052,027	3,350
<b>Total</b>	<b>934</b>	<b>2,703,053</b>	<b>2,894</b>
<b>Licence Renewals<sup>(a)</sup></b>			
Low	754	622,424	825
Medium	88	92,923	1,056
High	98	97,190	992
<b>Total</b>	<b>940</b>	<b>812,538</b>	<b>864</b>

(a) Recovery of 40 per cent of total costs for common administrative activities.

As mentioned in Section 3.4.2, PwC found that the Department has high licence administration costs compared to the New South Wales Office of Water (\$1,000 per licence or permit higher across all instrument types). This could be due to a number of reasons, such as the potentially greater effort required to administer groundwater

licences, of which there are more in Western Australia, or economies of scale being achieved in New South Wales, where there are a larger number of licences in force.

In regard to licence renewals, PwC noted that the costs of renewals are relatively high in comparison to the cost of an application for a new licence, in particular for the low-level risk assessment category.

Despite a licence having been in place for a number of years and the Department having previously assessed the licence, the costs are similar for low risk licence renewals and new applications, while high-risk renewals cost around three quarters of the cost of a new licence.

The Department considers that the relatively high cost of renewal is due to, firstly, the inclusion of on ground compliance surveys in the cost of licence renewals, which is a cost not incurred in the granting of a new licence. Secondly, a higher proportion of licence renewals are dealt with at the low risk level of assessment (80 per cent for renewals compared to 45 per cent for new licences). As a result, a higher proportion of C3 and C4 category applications at the low level of assessment for renewals, increasing the average cost of renewal assessments compared to low-level assessments for new licences. A basic underlying administrative cost is also associated with all licence processing. (PwC report, p50)

The Authority took the view in the Second Draft Report that the Department appears to put too much effort into assessing and processing licence renewals, as each application for renewal is considered on a case by case basis, in a similar manner to a new licence application. The Authority understands that when a licence is first issued to a water user, the Department's intent is that the licence will be renewed for as long as the user wants to take the water. It is also understood that the vast majority of licence renewals are accepted, although the conditions of the licence may have been amended. In addition, if the right amount of allocation planning was undertaken by the Department, there is likely to be more certainty about water resources and the amount of water that can be allocated to existing and new users. This should reduce the need for assessing renewals on a case by case basis, and licence renewals would be more administrative in nature.

As a result, based on the information provided by the Department in its cost submission (see Table 4.2) that approximately 40 per cent of the costs of licence renewals are incurred by common administrative activities,<sup>47</sup> the Authority took the approach that:

- only 40 per cent of licence renewal costs be recovered through application charges; and
- the remaining 60 per cent of the efficient licence renewal application costs,<sup>48</sup> equating to approximately \$1.2 million, be allocated to water resource management and planning activity costs, to be recovered through annual charges from all licence holders when feasible.

This additional funding to undertake allocation planning reflects the view that the preparation of more detailed allocation plans, which set out the amount of water that is available to existing and new users, would reduce the need to assess each licence renewal application in detail.

As indicated in Section 4.2.1, the proportion of effort applied by the Department in assessing high risk licences is less than what is required to assess most medium risk

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<sup>47</sup> This includes the administrative activities that are common across all applications, such as the completion of the initial check list, and review and sign off of application decisions.

<sup>48</sup> The other licence renewal costs listed by the Department are associated with water resource impact assessments, hydro assessments, operating strategies and site surveys.

licences. This is largely due to the additional reports that applicants for high risk licences are required to submit to the Department, which reduces the effort required to assess a licence application. These reports can be very expensive for licence applicants although they vary greatly in costs due to the nature of a project and location of a project. The estimated cost ranges of these reports have been provided by the Department and are outlined in Table 4.5.

**Table 4.5 Estimated Costs of Reports Required by the Department of Water (2009-10 Prices)**

Report Type	Cost Range (\$)
<b>Hydrological/Hydrogeological Reports*</b>	
Level 1	5,000-20,000
Level 2	10,000-50,000
Level 3	20,000-200,000
<b>Operating Strategies</b>	2,000-25,000
<b>Monitoring Reports</b>	
Monitoring and Aquifer Review Report	2,000-35,000
Monitoring Program Summary Report	1,500-10,000

Source: Department of Water

\* Note: Hydrogeological reports are generally required as part of Section 26D licences to construct or alter wells.

- Level 1 hydrogeological reports involve a desktop assessment. The information requirements are of low complexity and the expected timeframe for the assessment is 3 months.
- Level 2 hydrogeological reports involve a basic hydrogeological assessment, including installation and testing of investigation bores. The information requirements are of moderate complexity and the expected timeframe for the assessment is 6 months.
- Level 3 hydrogeological reports involve a detailed hydrogeological assessment, including installation and testing of investigation bores and a groundwater model. The information requirements are of high complexity and the expected timeframe for the assessment is 6-12 months.

While applications for high risk licences incur a lower fee than medium risk licences under the proposed charging structure, these applicants are generally paying significant amounts to prepare the reports that the Department requires to assess their licence applications. Applicants for medium risk licences generally do not incur the same amount of costs in preparing such reports (if required), and the assessment of these licence applications often requires more effort by the Department as a result.

For other licence and permit applications, the Authority proposed charges that reflected the average cost of each instrument. The Department was unable to differentiate the costs for these instruments based on the proportion of effort involved for low, medium or high risk applications.

**Table 4.6 Authority’s Proposed Fees for Other Licence Applications (Second Draft Report)**

Instrument Type	Number Issued	Proportion of Effort <sup>(a)</sup> %	Total Efficient Cost to be Recovered (\$)	Average Cost per Instrument (\$)
Amendment of a licence to take water	534	16	1,271,160	2,380
Trade or transfer of a licence to take water	160	6	469,244	2,933
Licence to construct or alter a well	726	16	1,205,972	1,661
Permit to interfere with bed or banks	52	1	86,962	1,672

(a) From Table 4.1 Number of Licensing Instruments Issued by Type and Proportion of Effort Involved.

### 4.2.3 Submissions

#### General Approach to Licence Fees

Submissions from the mining sector supported a “fee-for-service” approach, but were strongly opposed to charges based on the volume of licence. The Chamber for Minerals and Energy (CME) supported a “fee for service” approach in which fees reflect the level of complexity of a licence and discounting for public benefits.<sup>49</sup> However, CME strongly opposed volumetric charging. It also opposed the setting of charges based on the combination of allocation size and percentage catchment allocation (C1 to C4), on the basis that this approach ignores the geographical variations in management input. Rio Tinto also strongly disputed the Department’s position that larger volume licences incur higher water resource management costs.<sup>50</sup>

Rio Tinto submitted that those with low compliance and enforcement costs should not cross-subsidise those with high compliance and enforcement costs, and that these should be paid through public funds unless they can be targeted to reflect costs.<sup>51</sup>

The Turf Growers Association WA submitted that it did not support volumetric charging.<sup>52</sup>

The Manjimup and Pemberton Landowners and associated stakeholders supported licence administration fees based on an hourly fee for services provided for each licence, with licence holders provided with a quote for services to be provided by the Department in the assessment of their application, and the ability to appeal the quotation to a senior officer in the Department.<sup>53</sup>

The Department supported the Authority’s recommendation in the Second Draft Report that the Department should continue to collect data to refine the cost estimates for different licensing activities.

The Department submitted that it intends to refine the risk matrix used to determine the level of effort for different types of licence applications and renewals, as well as the level of effort associated with allocation and environmental planning. The review of the risk matrix would include: consideration of the number of volumetric bands; the number of risk categories; and triggers that could reduce the risk assessment, rather than raise it.

<sup>49</sup> Chamber of Minerals and Energy submission on first Draft Report.

<sup>50</sup> Rio Tinto Iron Ore submission on first Draft Report.

<sup>51</sup> Rio Tinto Iron Ore, *ibid.*

<sup>52</sup> Turf Growers Association WA submission on first Draft Report.

<sup>53</sup> Manjimup and Pemberton Landowners submissions on first Draft Report and Second Draft Report.

One issue highlighted by the Department is the impact that a single large user can have in increasing the risk on all users in an area (e.g. entry by the Water Corporation can change an area from a C1 to a C3 classification). The Department proposes that this could be addressed by placing greater weight on large volumes in the risk matrix, or by applying a surcharge to very high volume users, so that large users would pay significantly higher charges than small users.

WAFarmers oppose the quantum of charges, but submitted that the risk matrix needs to be reviewed, to better reflect the level of effort by the Department for large and small volume of users. An example of inequitable charges provided by WAFarmers was that of a 5.3 GL application by a mining company in Mingenew, which would pay the same level of fees as small use licence holders in the area.

Rio Tinto submitted that the risk matrix applied by the Department to determine levels of effort for different licences is a more cost-reflective basis for determining charges than one based purely on licence volumes.

The Chamber of Minerals and Energy also endorsed the risk matrix and categorisation of users by the Department and was strongly opposed to volumetric charges.

### *New Licence Applications*

Manjimup and Pemberton Landowners submitted that licence application fees are too high, and divide the proposed fees by the Department's recorded time to process each type of application to derive a range of costs per hour from \$164 to \$300. They stated that this cost per hour is well in excess of a nominal hourly rate for a licensing officer (\$40 per hour, based on an annual salary of \$77,792).

DAFWA submitted that licence application costs could be reduced by providing licence applicants with clearer guidance on the licence application process and information requirements, and that licence renewal fees seem high for what is a simple administrative process.

The Potato Growers Association of WA and vegetablesWA submitted that water licence application fees should be no more than \$40 per year.

### *Licence Renewals*

Manjimup and Pemberton Landowners and the PGA submitted that licence renewal fees of between \$825 and \$1,056 cannot be justified for what they consider should be a "rubber-stamping" exercise. Manjimup and Pemberton Landowners again compared the fees to an hourly rate of \$40 and submit that it should not take 26.4 hours to process a licence renewal.

Manjimup and Pemberton Landowners queried the Authority's re-distribution of 60 per cent of licence renewal fees to water allocation planning costs as "perverse".

### *Other Licence Application Fees*

The Department submitted that most licence amendments involve applications for higher water volumes, and are therefore required to be treated in the same way as a new licence application, involving the same amount of work. However, the Department acknowledged that some licence amendments may involve less work (e.g. changes of title or other amendments not involving increased water volume) and could therefore have lower fees.

The Water Corporation submitted that minor licence amendments (e.g. not involving changes in the size of water allocation) should have lower charges.

The Manjimup and Pemberton Landowners submitted that the other proposed licence application fees are too high, particularly if the services required are simple (e.g. an amendment to change in use from horticulture to aquaculture; a transfer to a new owner, or a temporary trade to a neighbour).

Manjimup and Pemberton Landowners submitted that there should be a schedule of charges for specific types of amendment, with a quote provided for specific services, and an ability to appeal if the quote is unacceptable.

DAFWA also did not support the level of fees and charges for licence amendments and licence trades or transfers. DAFWA suggested that licence amendment fees be differentiated for different types of amendments, with minor amendments incurring a nominal charge. DAFWA was also concerned that the cost of a licence trade (\$2,933) could deter transfers, encourage illegal informal trades, or induce growers to form co-operatives (such as Harvey Water) to avoid the trading fee.

#### **4.2.4 Authority Assessment – Licence Application Fees**

In the first Draft Report, the Authority recommended that the efficient costs incurred by the Department that are directly related to the provision of licences be recovered from licence holders.

This is consistent with the principle that the costs of activities to address impacts, or potential impacts, arising from the use of water resources should be recovered from those parties who cause the costs to be incurred, if the parties can be identified. Costs may be caused by individuals (for example assessment and monitoring of individual licences) or groups (for example allocation planning for groups of licence holders).

As outlined earlier in Section 3.5.2, the Authority's view is that 100 per cent of the costs of the activities that are incurred by the Department in processing and assessing applications for water licences and permits should be recovered from the licence or permit holders, as these costs are incurred by individual licence or permit holders that can be identified. The Authority is also satisfied that the efficient cost estimate of \$7.8 million for processing and assessing licence applications and permits in 2008-09 provides an appropriate cost base for charges.

Following the submissions in response to the Second Draft Report, the Authority re-examined the nature of the licensing activities to determine whether the fees are justified. In particular, the Authority examined whether licence applications could be differentiated between those that are relatively straight-forward and those that are more complex. This approach would allow for the charges for licences that are relatively straight-forward to be reduced below those proposed in the Second Draft Report (although the charges for more complex applications would be higher).

The steps and tasks involved in processing licence applications are as follows.<sup>54</sup>

1. Common administrative activities;
2. Water resource impact assessment;
3. Hydrological or hydrogeological survey;
4. Operating strategy;
5. Aerial survey;
6. Site survey;
7. Review by senior Departmental officer;
8. Sign-off and close-out of activities; and
9. Application related enquiries.

All licences applications require common administrative activities (1), a water resource impact assessment (2), review by a senior Departmental officer (7), and sign-off and close-out (8). Some licences may require only these activities – the Authority has termed these “basic” licence applications. More complex licences may require hydrological or hydrogeological surveys (3), operating strategies (4), aerial surveys (5), site surveys (6) and time spent on dealing with enquires related to the application (9).

Information from the Department indicated that licence applications for volumes of less than 50,000 kL would generally be treated as basic licence applications. A review of the data from the three-month time-keeping survey carried out by licensing staff indicated that, on this basis, of the 274 licence applications processed, 187 could be classed as basic licences (just over two thirds).

The Authority also noted that hydrogeological surveys are not a requirement of 5C licence applications, but rather are associated with applications for Section 26D permits (to construct or alter a well), although they are carried out as part of the associated 5C licence process. Therefore, the Authority has deducted the costs associated with hydrogeological surveys from the costs of 5C licences and added them to the costs of obtaining 26D permits, and hence the average charge for 5C licences has fallen in the Final Report.

It should be noted that processing a licence involves more than a single officer’s time. The analysis by the Manjimup and Pemberton Landowners of the draft proposed fees on the basis of an assumed hourly rate is therefore not valid. As shown in Section 4.2.4, the licence application charges are set to recover all the efficient costs that can be allocated to licensing, including the costs of water licensing and compliance, water licensing support, regional hydrogeological advice and surface water assessment, as well as allocated efficient overheads. The hours of time to complete a licence provides an estimate of the relative proportion of effort for different types of licences, and has been used to apportion the costs to be recovered to the different licensing instruments.

Further, even for apparently simple applications, such as a licence amendment involving a name change, the Department is still required under its legislation to carry out numerous steps, including:

<sup>54</sup> These steps apply to all licence applications; i.e. new 5C licences to take water; 5C licence renewals or amendments; 26D licences to construct or alter wells; permits to interfere with beds or banks; and transfers of licences or entitlements. A detailed description of the processes used by the Department in assessing licence applications, including the different steps used for low risk and medium/high risk applications, can be found in the report by Quantum Management Consulting and Assurance (12 March 2010), published on the Authority’s website, pp7-34.

- checking to see if the application is valid and complete;
- checking to ensure the person applying for a licence change is eligible to hold a licence;
- entering the application on the licensing system;
- updating the record management system;
- checking that there are no outstanding non compliance issues;
- completing the check-list on the template for low-risk licence applications;
- completing the licensing system data entry and preparing a covering letter;
- forwarding the application to an officer with delegated approval to issue the licence;
- photocopying, scanning and posting the letter and licence; and
- closing out the application.

Water trades and transfers are also not simple in general, as they are usually in areas where available water resources are constrained. The Authority therefore considers that the proposed charges for licence amendments (\$2,380) and for trades and transfers (\$2,930) to be appropriate.

The Authority is also of the view that the level of fees for licence renewals is appropriate, as these are set to recover only 40 per cent of common administrative activities. However, the Authority is mindful that under the new legislation to be considered by Government, licence renewals would no longer be required, and the costs currently associated with the assessment of licence renewals would be rolled into the ongoing costs of managing allocation plans. In this event, there would be a case for reimbursing licence holders who have paid for a licence renewal shortly before the introduction of the legislation. The amount to be reimbursed would be determined by the number of years left on the renewed licence.

- For example, if a licence holder renewed a licence for a period of 10 years, and the new legislation was introduced two years into the ten-year licence period, the licence holder could be reimbursed for the remaining 8 years of the licence (80 per cent of the renewal fee).

Table 4.7 sets out the proposed fees for the different services provided by the Department in the processing and assessment of licences and permits. The differences between the final proposed charges and those in the Second Draft Report are that:

- the fees for new 5C licences are differentiated for basic and complex licence applications and exclude the costs of hydrogeological assessments, which are covered by the fees for 26D permits. The Authority estimates that around two thirds of licence applications will be in the “Basic” category; and
- the fees for licences to construct or alter a well (26D licence) is slightly higher than in the Second Draft Report (\$1,835 compared to \$1,661), as the costs associated with hydrological and hydrogeological assessments, which are a requirement for 26D licences, have been included in these fees.

The fees in Table 4.7 have been rounded down to the nearest \$5. The fees, which are based on 2008-09 cost estimates, would be indexed for inflation prior to implementation.



**Table 4.7 Recommended Final Fees for Services in the Processing and Assessment of Licences and Permits**

Services in the Processing and Assessment of Licences and Permits	Application Risk Category	Type of Licence	Recommended Fee following Phase-in (\$ per Application)*
<b>New 5C Licences</b>	Low Risk	Basic	1,670
		Complex	4,850
	Medium Risk	Basic	2,740
		Complex	6,200
	High Risk	Basic	2,850
		Complex	5,290
<b>5C Licence Renewals</b>	Low Risk		825
	Medium Risk		1,055
	High Risk		990
<b>Other Licence Application Fees:</b>			
Amendment of a licence			2,380
Trade or transfer of a licence			2,930
Licence to construct or alter a well (26D)			1,835
Permit to interfere with bed or banks			1,670

\* Fees are based on 2008-09 cost estimates, but would be indexed for inflation prior to implementation.

The Authority is recommending that fees for licence and permit applications be phased in over the next three years and that the charges be reviewed at the end of this period should the implementation of the new water resources legislation not occur within this time (see Section 9). During this period, the Authority advises that the Department continue to collect information on the costs of processing different types of licences to determine if fees can be further disaggregated (e.g. separate fees for site surveys, aerial surveys and different levels of operating strategy, water resource impact assessments, and licence amendments). This would allow each licence application to be charged according to the services it requires, along the lines of a “fee for service” model preferred by stakeholders.

The recommended fees are based on the Authority’s estimates of the current efficient costs of licensing activities, and provide a base for future charges. However, it is likely that any future reviews would build in productivity targets to be met by the Department and efficiency gains that the Department could be expected to achieve going forward.

Licence fees would also need to be reviewed in the event of the introduction of new water resources legislation, as such legislation could alter the number of areas that are proclaimed, which water users are required to hold licences, and the requirements of the Department in its licensing activities.

The Authority is confident that the structure of charges proposed is reflective of the relative proportion of effort by the Department in its different licensing activities. The view put forward by stakeholders in the mining sector that the size of allocation has little effect on the time required to process a licence application is supported by the evidence collected by the Department. While large licences will usually be in the higher risk categories, and require a more thorough assessment, large licence holders also carry out much of their own assessment works, reducing the input required by the Department.

## Processing and Assessment of Applications for Licences and Permits

- 14) The upfront application fees for new 5C licences and 5C licence renewals be differentiated based on the proportion of effort applied to applications of different risk categories (low, medium or high).
- 15) The upfront application fees for new 5C licences further differentiate between:
  - “basic” licences, which require only common administrative activities, a water resource impact assessment, review by a senior officer and sign-off; and
  - “complex” licences, which require additional services, such as operating strategies, aerial surveys, site surveys and dealing with enquiries related to the application.
- 16) Other licence fees be based on the average efficient cost incurred by the Department in assessing and processing each type of instrument.
- 17) The Department continue to collect and analyse data to establish the levels of effort required to assess and process different types of licensing instruments, in order to develop a more disaggregated fee structure reflecting the costs of specific licensing activities and their complexity.

## 4.3 Providing Water Allocations and Managing the Ongoing Use of Water

### 4.3.1 Background

The Department undertakes a number of activities to determine the amount of water that can be taken by all water users within a water resource and manages the ongoing use of that water. The activities associated with this service can be separated into the following two components:

- water policy and enforcement activity costs, which are common to all licence holders. These include, for example, the development of policies and guidelines to licensing officers to direct how licences should be assessed, or how breaches of licence conditions should be handled; and
- water allocation planning and ongoing management of water, including supporting activities, which vary between licence holders.

In its allocation planning activities, the Department prepares water allocation plans or water management plans for different groundwater or surface water management areas. At the time of this report, there are 23 areas that have current water allocation plans in place, and the Department is in the process of finalising another 5 plans. The Department is planning to review 7 of the current allocation plans, and has identified a further 12 allocation plans for development. In addition to allocation plans, the Department has also produced guidelines for Pilbara water used in mining, and is developing water reform

plans for the Pilbara, Gngangara and Collie regions. See **Appendix F** for a full list of the current status of the Department's allocation plans.

The water allocation plans are non-statutory, as one of the requirements for statutory plans under the current legislation is that they be approved by a Water Resources Council. This Council has not been established.

### **4.3.2 Department of Water Cost Submission**

#### *Water Licensing Policy and Enforcement*

According to the Department, water licensing policy and enforcement activities apply to all water users, regardless of the water resource management area from which they are taking water, the amount of water that is allocated from a resource, or the nature of the licence. As such, the Department submitted that it is appropriate to charge for these costs equally across all users.

#### *Water Allocation Planning and Support Services*

The remaining activities are associated with the allocation of water to users, either directly through allocation planning or indirectly, through the activities that support allocation planning. The Department presented the costs of these activities in several ways in its cost information submission:

- the total costs of the activities by the total number of water licences in force (basis for a flat fee to apply to all licence holders);
- the total cost by resource management category and by the number of licences in each resource management category (basis for a charging regime based on resource management category). Resource management categories (C1, C2, C3 or C4) are applied to water management areas on the basis of the degree to which available water resources in that area have been allocated (see Box 2 below); and
- the total cost of each plan prepared, with some analysis by number of users, volume of water, and approximate duration of plans (basis for charges to licence holders which would vary by region to reflect the costs of allocation plans and support activities).

**Box 2. Resource Management Categories and Risks****Low risk (C1):**

- Relatively low use, 0-30 per cent of allocation limit used (C1 resource management category), or
- Low risk to environment, or
- Low consequences of current and short to medium term use.

**Medium risk (C2):**

- Medium use, 31-70 per cent of allocation limit used (C2 resource management category), or
- Medium risk to assets and users, or medium consequences if use changes, or potential to jump quickly to high use.

**High risk (C3):**

- High use, 70 to less than 100 per cent of allocation limit used (C3 resource management category), or
- High risk or high consequences if level of use increases without improvements to management.

**High risk (C4):**

- 100 per cent or greater than 100 per cent allocation limit used (C4 resource management category) for any management area in a plan area.

**Management Response (R1 to R4):**

The management response by the Department in different C1-C4 classified areas is classified similarly as R1 (a low level of management, typically in low risk areas) to R4 (a high level of management, typically in high risk, over-allocated areas). Usually a C1 area will have an R1 level of management, a C2 area an R2 management level, etc. However, in some areas a higher management effort may be required than suggested by the degree of resource allocation, to manage specific local impacts or risks in a particular sub-area.

### 4.3.3 Proposed Charges in Second Draft Report

As discussed in Section 3.5, the Authority agrees with the Department that the activities of allocation planning, environmental water planning, groundwater and surface water assessment, and water measurement and information are carried out primarily for private parties (water allocation holders), but also have a “public good” component. However, in the Second Draft Report, the Authority recommended a slightly higher proportion of these costs to be allocated to the public than that suggested by the Department (30 per cent rather than 20 per cent), to reflect the degree to which community standards underpin the types and amount of activities undertaken in providing water allocations and managing the ongoing use of water.

#### *Water Licensing Policy and Enforcement*

In the Second Draft Report, the Authority proposed that a flat annual fee should apply to all water users to recover the efficient costs of the water licensing policy and enforcement activities, calculated by dividing the total efficient costs of these activities by the number of

total licences in force (13,796 licences were in force at 30 June 2009). This would result in an approximate annual cost of \$149 per water user (Table 4.8).

**Table 4.8 Indicative Draft Annual Charges for Water Licensing Policy and Enforcement (Second Draft Report)**

Activity	Total Efficient Cost 2008-09	Number of Licences in Force – June 2009	Average Cost per Licence (\$)
Water licensing policy	1,538,650	13,796	112
Enforcement	517,952	13,796	38
<b>Total</b>	<b>2,056,602</b>	<b>13,796</b>	<b>149</b>

### *Water Allocation Planning and Support Services*

The most efficient and cost-reflective option to recover the costs of water allocation planning and environmental water planning activities, and their support activities, would be to set charges which recover the Department's efficient allocation planning costs for each plan that is prepared, from the users that are covered by each plan. For example, the costs of the recent Whicher Surface Water Plan would be recovered by the surface water users that take water in the recently proclaimed Whicher region in the South West of Western Australia.

However, only some water allocation plans have been finalised (see **Appendix F**), so some statutory plans would not be available when new legislation is implemented. An interim charging mechanism would be needed to recover efficient water allocation planning and management costs for areas where allocation plans remain to be finalised and made statutory. Charges would need to reflect as closely as possible the different levels of effort by the Department in different areas and for different types of licence holders.

- According to the Department, one of the key drivers of the level of allocation planning and management effort is the degree to which water resources in a region have been allocated ("C" classification – see Box 2 in previous section).
- Another determinant of effort levels is the risk category that is assigned to a licence holder when submitting a licence application (which may be low, medium or high, depending on a number of factors, such as how much of a resource is allocated, how much water an applicant is applying for, what the impact is on other users and the environment; see Section 4.2.1 for explanation of licence risk categories).

In the Second Draft Report, the Authority developed a set of proposed annual charges to recover the efficient costs of water allocation planning, environmental water planning cost and other activities that support allocation planning. In addition, 60 per cent of the costs of processing licence renewals (\$1.2 million) was included in the costs to be recovered through the annual charge (see Section 4.2.2 for discussion). The total efficient cost for these activities was \$9.8 million in 2008-09 – see Table 3.6.

These costs were then allocated between different resource management categories and licence holder risk categories.

- The share of costs between the resource management categories (C1 to C4) in Table 4.9 was based on the estimate that total effort to support C3/C4 areas<sup>55</sup> is two times that for a C2 area, and the effort for C1 areas is a quarter that of a C2 area (resulting in a relative cost ratio of 1:4:8 for C1, C2 and C3/C4 areas). This estimated ratio reflects the information provided by the Department in its submission.<sup>56</sup>
- According to the Department, the different levels of effort required in C3/C4 areas to support low, medium and high risk water users results in a relative cost ratio of 1:2:5, as can also be seen in Table 4.9. This means that the total effort to support a high risk user is two and half times that for a medium risk user, and the effort for low risk users is half that required for a medium risk user.
- The average costs of water allocation planning and management of water use per licence is higher for water users in C2 areas (\$390 per annum) than low risk water users in C3/C4 areas (\$304 per annum). This is because all the water users in C2 areas incur the same costs (total costs are averaged across all users) whereas different water users in C3/C4 areas incur different costs (low risk users require much less effort than medium or high risk users).

**Table 4.9 Authority's Draft Proposed Charges for Water Allocations and Management of Water Use (Second Draft Report)**

Resource Management Category	Number of Water Use Licences	Efficient Cost Share <sup>(a)</sup> (\$)	Average Cost per Licence (\$)
C1	1,049	102,235	97
C2	2,727	1,063,092	390
<b>C3/C4</b>			
Low risk	4,609	3,593,540	304
Medium risk	2,004	1,562,476	608
High risk	3,407	2,656,366	1,520
<b>Average</b>	<b>13,796</b>	<b>8,977,709</b>	<b>651</b>

(a) This includes 60 per cent, or \$1.2 million, of the efficient licence renewal costs (see discussion in Section 4.2.4).

#### 4.3.4 Submissions

The Department generally supported the Authority's proposed approach and recommendations for the annual charge. However, the Department submitted that the impact of large users on management costs was not adequately reflected in the charging structure; for example, in some areas a single large volume user can result in a resource being categorised as C3 rather than C1. The Department proposed that a review of the risk assessment matrix (used to assign licences to risk categories), or alternatively, a surcharge on high volume users, could address this issue.

<sup>55</sup> It is understood that the level of effort required to undertake allocation planning and resource management activities for C3 and C4 areas is almost the same.

<sup>56</sup> Department of Water (May 2010), *Costing of Water Activities*, p48.

However, the Department submitted that:

The Department's current approval processes for allocation planning does not meet one potential criterion for statutory allocation planning under the provisions of the RiWI Act (i.e. approval by a Water Resources Council). Preliminary legal advice is that the Department cannot recover costs for this activity because of these inconsistencies (Department of Water submission on Second Draft Report, p13)

The Department therefore recommended that annual fees be deferred until after the introduction of the new water resources management legislation.

WALGA proposed that the introduction of fees to local government be delayed until after local governments have amalgamated their groundwater licences.<sup>57</sup> (Many councils have numerous licences that could be treated as a single licence to reduce administration costs, e.g. one for each park.) WALGA also recommended a single licence fee to reduce the administrative burden on local government.

For water resource management annual charges, the Department of Agriculture and Food WA submitted that a small winery using 11,400 kL would pay the same annual charge as a large horticultural enterprise using 10,000,000 kL. DAFWA recommended greater transparency in the application of the risk matrix and further segmentation of users in the C3/C4 category to improve the equity of charges.

Manjimup and Pemberton Landowners, vegetablesWA and the Potato Growers Association of WA maintained that 100 per cent of water allocation planning and management is for the public good and should be paid for out of State Government funds.

They also submitted that it is irrational and unfair for small users to pay the same annual charge as large users. Manjimup and Pemberton Landowners submitted that this represents a cross-subsidy from small users to large users.

Several submissions expressed a lack of confidence in the scientific methods used to determine the amount of water needed for the environment (Manjimup and Pemberton Landowners, Pastoralist and Graziers Association, Shire of Nannup). The Pastoralist and Graziers Association submitted that all environmental water provisions should be included in consumptive pool arrangements, and if allocations for a pool are reduced, then the environmental water allocation would be reduced by the same amount as other users.

On the subject of water licensing policy and enforcement charges, the Manjimup and Pemberton Landowners submitted that:

- the \$112 charge for water licensing policy could not be justified in terms of the services provided, since a small licence holder in Manjimup would pay the same as a large licence holder such as the Ord Irrigation Scheme;
- there are no statutory processes currently being utilised for stakeholder input into water resource management policy in Western Australia;
- the \$38 annual fee for licence enforcement was not cost-reflective, as they maintained that there has been very little enforcement activity in the Manjimup area; and
- there is an inconsistency between the treatment of licence holders and garden bore owners, who have recently been issued with 220 infringement notices by the

<sup>57</sup> WALGA submission on the Second Draft Report.

Department, but are not licensed and would therefore not incur an annual charge for enforcement.

### 4.3.5 Authority Assessment

#### *Water Licensing Policy and Enforcement*

The Authority considers that the development of water licensing policy and enforcement of those policies is an activity of the Department that is for the benefit of all licence holders and that it is appropriate for the efficient costs of these activities to be shared between all licence holders. The development and enforcement of licensing policy helps to ensure that the processing of applications and ongoing management of water allocations meets legislative requirements and that the rights of all licensed users are protected. Further, the Authority is confident that the estimated efficient costs of \$2.06 million (based on 2008-09 costs) provide an appropriate basis for cost recovery.

The Authority therefore considers that a charge of \$145 per licence holder per year (the \$149 recommended in the Second Draft Report, rounded down to the nearest \$5) is appropriate to recover the efficient costs of water licensing policy and enforcement activities. However, as with allocation planning charges, the Authority recommends that these costs not be recovered until the new water resources legislation is in place (see below).

#### *Water Allocation Planning and Ongoing Management of Water Resources*

The responses to the Second Draft Report indicate that there are several issues that remain to be resolved regarding the levying of annual charges to recover a proportion of the costs of water allocation planning and management. These are:

- the legislative requirements to be met for levying annual charges;
- the extent to which charges are able to reflect the differences in water resource management costs between regions, and between different types of licence holders (particularly in relation to size of allocation); and
- the equity issue of some licence holders who already have publicly funded allocation plans in place, while other licence holders would incur the cost of their plans.

#### *Legislative Requirements for Levying Annual Charges*

In order to levy annual charges, the Department would need to develop statutory water allocation plans. The RiWI Act provides the powers to develop statutory water allocation plans,<sup>58</sup> but specifies the public consultation process to be used in making the plans,<sup>59</sup> and requires that the Minister refer a plan to the Water Resources Council prior to the approving the plans. The powers to establish the Water Resources Council are provided in the *Water Agencies (Powers) Act 1984*.<sup>60</sup>

Currently, the water allocation plans prepared by the Department are non-statutory, as the Department has not established the Water Resources Council, so the water allocation plans do not meet the criterion for statutory allocation plans (that they be referred to the

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<sup>58</sup> *Rights in Water and Irrigation Act 1914, Part 3, Division 3D.*

<sup>59</sup> *Rights in Water and Irrigation Act 1914, Subdivision 2, clause 26GZA onwards).*

<sup>60</sup> *Water Agencies (Powers) Act 1984, Part 2A, clauses 16-28.*



Water Resources Council). The current allocation plans guide the exercise of the Ministerial discretion to grant or withhold licence to take or use surface water or groundwater, and guide assessment of licences. However, as they are non-statutory, the Department cannot currently charge annual fees to recover the costs of allocation planning.

The Department is currently drafting a new water resources management bill, estimated to be finalised in 2011, for consideration by Government as part of its water resource management agenda. The new legislation, if introduced, could provide additional powers to the Department for the recovery of costs associated with ongoing water resource management activities.

### *Cost-Reflective Annual Charges*

Ideally, the annual charge for water allocation planning and management would be set to reflect the costs that different types of licence holders in different areas cause to be incurred. Such charges are efficient (in that they indicate to licence holders the costs of managing water resources incurred on their behalf) and equitable (licence holders who cause more costs to be incurred pay higher charges). The Authority therefore recommends that annual charges, when implemented, be set for each statutory water allocation plan, to recover the ongoing costs of allocation planning and management from the licence holders in the plan area.

In accordance with the principles set out in Section 2.2, the sharing of costs between licence holders in a plan area should take into account:

1. The proportion of costs incurred by the Department that is related to activities with a public good component. This may include activities carried out for the benefit of recreational users, unidentified users or future users. The Authority has proposed a 30 per cent reduction in costs to reflect the public good component of allocation planning and management activities, but it is possible that this proportion could vary between plan areas, depending on the water use activities and impacts in that area.
  - For example, the Department may be spending a lot of effort in managing groundwater salinity that is not caused by licence holders, so that the proportion of costs incurred by the Department that are attributable to the licence holders in that area is less than 70 per cent.
2. The cost drivers of water allocation planning and management activities.
  - As already indicated, one cost driver will be the degree to which water resources in a water management area have been allocated, as greater management effort is needed in areas where water resources are constrained or over-allocated. Recovering costs on a per-plan basis would take into account differences between regions in the costs of water allocation planning and management. However, differences can also arise between sub-catchments in one plan area; for example, a water management area may have water resources that are largely unallocated across the plan area as a whole, but a high level of management effort is required by the Department due to particular sub-catchments where water resources are close to full allocation, or over-allocated, or causing impacts on the environment or other users.
  - Based on submissions, discussions with stakeholders and discussions with the Department, the Authority is of the view that the size of licence as a proportion of the total allocation in an area is likely to be a significant

determinant of the level of allocation planning and management effort by the Department on behalf of particular licence holders.

- The risk matrix used by the Department to assign licences to a risk category goes part-way to addressing this issue, as high volume licences are much more likely to be categorised as high risk. However, submissions by the Department and by other stakeholders indicate that the risk matrix does not adequately capture the ongoing water allocation management costs associated with very high volume users, such as an irrigation co-operative, a water service provider, or a large mining company. A review of current water management plans published by the Department indicates that considerable effort by the Department is focused on the management of impacts, or potential impacts, of large volume water users, where these exist. Under the charges proposed in the Second Draft Report, a single licence holder such as the Ord Irrigation Co-operative or Harvey Water would pay the same annual charge as a small licence holder in Manjimup or Pemberton, which is not reflective of the higher water resource management effort associated with the irrigation co-operatives.
- Thus, while the Authority accepts the view of the mining companies that the time taken to process the licence applications for large volume users is not necessarily higher than for small use applicants, the Authority considers that for the activities of water allocation planning and the ongoing management of water resources, allocation size (or the licence holder's share of available water resources) is likely to be a significant factor in determining a licensee's impact on a particular catchment.

Regional charges were recommended by the Authority in the first Draft Report, but were not supported by the Department, on the basis that this would lead to widely different annual charges between regions. However, the Authority's view is that this is efficient and equitable. First, the charges should indicate to water users, for example, the higher water resource management costs associated with large licences in regions where there is little water available. Equally, it is inequitable for the higher management costs associated with allocation plans in one part of the State to be paid for by users in other areas that require little management by the Department.<sup>61</sup>

A practical consideration in the implementation of regional charges is that some licence holders will already have well developed allocation plans in place, which have been paid for by public funds. If regional annual charges were introduced, reflecting the water allocation planning costs for each plan area, licence holders in areas where allocation plans still need to be developed would incur the cost of the development of their initial water allocation plan. These costs can be substantial, as a lot of initial research and investigation of water resources and user impacts is carried out in order to ensure that water allocation limits are set in accordance with legislative requirements.

To overcome these effects, the Authority therefore recommends that the costs of developing the initial water allocation plan for each area be publicly funded. However, the ongoing costs of water management and subsequent plans in each plan area should still be paid for by the licence holders in that plan area.

It is recommended that any sharing of costs between licence holders in a plan area involve:

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<sup>61</sup> For these reasons, water resource management charges in New South Wales are set for each individual water catchment.

- independent audit of the estimates of the efficient costs to be recovered; and
- consultation with licence holders in the plan area regarding the cost sharing formula and the services to be provided.

In view of this recommended approach, and the inability of the Department to levy annual charges under the current arrangements, the Authority recommends that the implementation of annual charges for ongoing water allocation management costs be deferred until after new legislation is introduced. This would allow the Department additional time to collect information on the cost of its water allocation plans and allocation management activities in order to develop cost-reflective annual charges for licence holders in each plan area.

The benefit of regional charges is that there is a strong nexus between the costs incurred and the water users and particular water management issues in that area. Developing charges in consultation with the local licence holders would promote close scrutiny of the costs incurred and a clearer understanding of the nature and purpose of the activities carried out and the resultant charges.

While further work is needed by the Department to identify the specific cost drivers of management effort in different areas, a possible approach to cost allocation in a water management plan area could be as follows:

1. Determine the efficient costs (excluding external funds) of water resource management for a water allocation plan area, including the efficient costs of overheads, but excluding those costs associated with the development of the initial allocation plan.
2. Determine the share of the efficient costs attributable to licence holders. The amount of work carried out by the Department for parties other than licence holders can inform this decision (e.g. activities carried out on behalf of unidentified users, the general public, recreational users, future users; or to address environmental impacts not associated with the licence holders; or to address uncertainty about future climate change). The default proportion of costs attributable to licence holders is the 70 per cent as recommended by the Authority, but may be higher or lower if it can be shown that circumstances for a particular catchment are different.
3. Allocate costs to each licence holder in proportion to the level of management effort incurred by the Department for each type of licence holder, and in consultation with the licence holders.
  - Differences between sub-regions in terms of management effort can be taken into account by applying weights to allocate costs by the proportion of effort spent on different types of areas. For example, if the proportion of effort spent by the Department on low risk, medium risk and high risk sub-areas is in the proportion 1:4:8 respectively, then weights can be applied to ensure that the proportion of costs recovered from licence holders per ML of water allocated in each sub-area is twice the proportion of costs for users in high risk areas as for users in medium risk areas, and 8 times the proportion of costs allocated to users in low risk sub-areas.
  - If allocation size is a key driver of management effort, then costs for each sub-area would be allocated between licence holders in proportion to their allocation volume as a share of the total allocated volume in the sub-area.

The treatment of costs associated with the management of mine dewatering would also need to be considered in the cost allocation.<sup>62</sup> Dewatering by mines is managed outside the allocation limits for a catchment where it involves transfers of water between different parts of the catchment rather than consumptive use of the water resources. The management of mine dewatering often involves complex operating strategies, developed through consultation between the Department, the mining company and other affected stakeholders, to manage the impacts on the environment and others. The operating strategies are implemented at the cost of the mining company. However, there may be considerable effort expended by the Department in managing and monitoring mine dewatering impacts as part of its allocation planning activities. As these costs are incurred on behalf of the mining company, they should be allocated to the mining company.

The Authority would like to emphasise that the above steps are a recommended approach only, and that more consultation with stakeholders and the Department would be required in order to develop and implement annual charges that closely reflect efficient costs. Although the Authority has recommended that annual charges be deferred until after the introduction of the new water resources legislation, it is important that the Department identify the information it would need to collect as part of its allocation planning to enable the development of regional charges, so that it can develop its data systems. For this purpose, the Authority provides some illustrative examples of regional annual charging.

### Examples

The Authority has examined three examples of how the above approach could be applied. The examples are illustrative only, based on assumed estimated annual costs. Therefore, the charges calculated should not be taken to be recommended or actual charges.

- *Lower Canning River Surface Water Allocation Plan*

Surface water resources in the Lower Canning River are currently fully allocated. The area is classified as an R3 management area (a high level of management – see Box 2 in Section 4.3.2). The allocation limit is set at 650 ML. Licensed users (53) are allocated 608 ML and unlicensed users (30 property owners with riparian rights) are allocated 42 ML.

The costs of ongoing water allocation management (excluding the costs of allocation planning and environmental planning) were estimated by the Department at around \$182,350 per year.<sup>63</sup>

- This figure would need to be independently audited for efficiency. However, assuming a similar reduction for efficiency as in Table 3.6 for ongoing water allocation management activities, and excluding external (e.g. Commonwealth Government) funding, the estimated efficient cost would be 60 per cent of this, or \$109,410.<sup>64</sup>

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<sup>62</sup> Dewatering is the removal of groundwater from mine cavities, particularly where excavation is below the groundwater table.

<sup>63</sup> Department of Water submission in response to the first Draft Report, p53.

<sup>64</sup> This estimated reduction for efficiency (60 per cent) is based on the Authority's recommended efficiency reduction for the service of allocation planning and managing the ongoing use of water, excluding the costs of water licensing policy and enforcement, and before the deduction for public costs (see Table 3.6). The percentage reduction for efficiency could vary, depending on future audits of the Department's costs of service provision.

- Deducting 30 per cent for public benefits would leave \$76,587 to be recovered.
- Assuming management effort is uniform across the region, the majority of this cost would be apportioned to licence holders (who hold 608 ML out of the total allocation limit of 650 ML, or 93.5 per cent). This would equate to \$71,609 per year to be recovered from licence holders, or \$118 per ML per year, or around \$1,351 per licence holder per year on average. No information on the characteristics of licence holders is available to assess a typical impact.
- *Ord River Water Management Plan*

The Ord River Water Management Plan sets a diversion limit for the Ord River between Lake Kununurra and Tarrara Bar of 750 GL per year, including 350 GL to meet demand for Ord Stage 1 irrigators, and 400 GL to meet future demand by irrigators in the Ord Stage 2 development. Currently, the Ord Irrigation Cooperative holds a licence for 335 GL, shared between 62 shareholders. The Water Corporation has a licence for 4 GL. There are also 44 self supply users, who are not licensed, who have an allocation of 5 GL for current demand plus 3 GL for future growth.

The cost of ongoing water allocation management for the Ord River (excluding the costs of allocation planning and environmental planning) were estimated by the Department at around \$218,500 per year.<sup>65</sup>

- Again, this figure would need to be audited. Assuming (as in the above example) that efficient costs are 60 per cent of this figure, and deducting 30 per cent for public benefits, this would leave \$91,770 per year to be recovered.
- If allocated on a volumetric basis (and assuming, for simplicity, equal weighting applied for management effort in each sub-area), this would result in a cost allocation to the Ord Irrigation Co-operative of  $335/750 \times \$91,770 = \$40,990/\text{year}$ . Charges would amount to around \$122 per GL of allocation or around \$661 per irrigator on average.
- *Warren-Donnelly Surface Water Allocation Plan*

The cost of ongoing water allocation management for the Warren-Donnelly area (excluding the costs of allocation planning and environmental planning) were estimated by the Department at around \$277,778 per year.<sup>66</sup>

- Assuming, again, that efficient costs are 60 per cent of this, and deducting 30 per cent for public benefits, this would leave \$116,667 per year to be recovered.
- The Warren-Donnelly surface water management area has a number of sub-areas requiring different levels of effort by the Department, depending largely on the concentration of licence holders in each sub-area. Some areas are classified as C1 (low risk), others as C2 (medium risk) and others as C3 or C4

<sup>65</sup> Department of Water submission in response to the first Draft Report, p50.

<sup>66</sup> Ibid, p50.

(high risk). The Department estimates that the proportion of effort required for C1:C2:C3/C4 area is in the ratio of 1:4:8.

- Allocating the \$116,667 between sub-areas, taking into account the proportional weighting of effort of 1:4:8, and the allocated volumes for each sub-area (provided to the Authority by the Department) results in a sharing of costs between areas of \$3.78 per ML of licence allocation for licence holders in C3/C4 areas; \$1.89 per ML for licence holders in C2 area; and \$0.47 per ML for licence holders in C1 areas. The average annual charge per licence holder across all catchments is \$398 per year.

### *Interim Annual Charges*

The Authority remains of the view that the costs of water resource management and planning activities that are carried out for licence holders should be recovered from licence holders. Interim charges could be applied, following the introduction of the new water resources legislation, to licence holders who are still awaiting a statutory allocation plan, to recover the balance of water allocation planning and management costs incurred by the Department that are not recovered from licence holders with statutory allocation plans on a per plan basis.

The Authority has calculated a set of indicative interim annual charges that could be applied (see Table 4.10). The indicative interim annual charges follow the same structure as those proposed in the Second Draft Report; i.e. differentiating between the different levels of management response between regions, and the risk categorisation of licence holders in highly allocated or over-allocated catchments.

- However, the efficient costs associated with the activities of allocation planning and environmental water management (around \$3.29 million in 2008-09) have been deducted from the costs to be recovered, to reflect the recommendation that the development of the first allocation plan be publicly funded. The remaining costs, associated with the ongoing water allocation management activities of surface water assessment, groundwater assessment, investigation and review, surface water information collection, groundwater information collection and water information management, were estimated at around \$4.47 million in 2008-09. The indicative interim charges are therefore around half of the proposed annual charges in the Second Draft Report.
- The Authority recommends that these indicative interim charges be reviewed as soon as new legislation is introduced, as it is likely that new legislation would result in more activities and areas being proclaimed, with new licence holders that have not been consulted on these charges. The Authority also notes that the level of management effort by the Department (e.g. R1 to R4) is a better basis for charges than the resource classification (C1 to C4), as the resource management level does not always correspond to the resource classification level. For example, while an R1 response is usually employed in a C1 area, a higher level of response (e.g. R2 or R3) may be needed if there are particular local impacts in parts of the catchment.

As the indicative charges presented in Table 4.10 are unlikely to be implemented, the Authority has not included them in the final table of recommended charges.

**Table 4.10 Indicative Interim Annual Charges for Ongoing Water Allocation Management Costs (to be Reviewed Following Introduction of New Legislation)**

Level of Management Response	Risk Category of Licence Holder	Proposed Annual Charge (Second Draft Report, \$)	Indicative Interim Annual Charges (\$)
R1		97	45
R2		390	190
R3/R4	Low risk	304	150
	Medium risk	608	300
	High risk	1,520	755

### *Final Recommendations*

#### **Providing Water Allocations and Managing the Ongoing Use of Water**

- 18) The efficient costs of water allocation planning and environmental water planning (including the efficient costs of their supporting activities) that can be attributed to identifiable private parties be recovered annually from these parties in a way that reflects the proportion of effort involved in undertaking the activities.
- 19) The cost of developing the initial water allocation plan in each area be funded by government.
- 20) Annual charges for providing water allocations and managing the ongoing use of water be set for each statutory water allocation plan:
  - on the basis of the level of management effort required by the Department for different types of licence holders; and
  - in consultation with the licence holders in the plan area.
- 21) The Department collect information on the costs and cost drivers of water allocation planning and the ongoing management of water use for each statutory water allocation plan, with a view to implementing charges to recover these costs once new legislation is introduced.

## 4.4 Separate Billing for Large Licence Holders

### 4.4.1 Background

In the first Draft Report, the Authority suggested that where the costs associated with licensing of particular large licence holders (such as the Water Corporation) can be accurately identified, such costs should be charged to that licence holder.<sup>67</sup>

In its submission on the Issues Paper, the Department proposed to bill large water users separately if the direct costs of water resource management and planning activities incurred by the Department on behalf of a particular licence holder can be clearly identified. In the first instance, the Department proposed separate charging for the Water Corporation. However, it considered that co-operatives and other large users could eventually be treated separately like the Water Corporation.<sup>68</sup>

The Authority accepted that there is a case for charging some large customers their direct licensing costs, which would be excluded from the general licensing costs, if there are adequate systems in place to separately identify these costs. Further, other large customers, not just the Water Corporation, should be given the option of individual charging if the administration costs are not prohibitive.

In the case of the Water Corporation, the Authority proposed that there may be a need for independent verification of any water resource management costs incurred by the Department, as there may not be sufficient incentive to minimise such costs, which are passed on to the Corporation's customers.<sup>69</sup>

In the Department's cost information submission, the licensing of the Water Corporation for the Perth integrated water supply scheme has been separated out and costed as a specific activity undertaken by the Department.<sup>70</sup> In 2008-09, the Department's actual costs to provide this service was \$324,211 (including overheads).<sup>71</sup>

The CME, Water Corporation, Rio Tinto and Harvey Water supported separate billing of large users. However, the Manjimup and Pemberton Landowners questioned why this should not be extended to all parties, with licence holders paying on the basis of the services provided and the number of hours of work involved in each licence application.

The Department submitted that the determination of direct charges to a broader set of large users would require the Department to review its administrative systems to allow for the segregation of costs on a case-by-case basis.

### 4.4.2 Proposed Charges in Second Draft Report

In the Second Draft Report, the Authority took the view that all of the Department's efficient costs that contribute to the licensing of the Water Corporation in the IWSS should be recovered from the Water Corporation. The Corporation would then most likely seek to

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<sup>67</sup> First Draft Report (December 2009), draft recommendation 16.

<sup>68</sup> Department of Water submission on the Issues Paper, pp118-119.

<sup>69</sup> First Draft Report (December 2009), pp37-39.

<sup>70</sup> Licensing of the Water Corporation for other areas of the State (outside of the IWSS) are incorporated into the general costs of licensing. In addition, the ongoing water resource management and planning costs incurred by the Department of Water on behalf of the Corporation are not included in this activity. The IWSS provides water to the Perth metropolitan area, the Goldfields and some towns in the wheatbelt.

<sup>71</sup> Department of Water (May 2010), *Costing of Water Activities*, pp41-42.



pass these costs on to its IWSS customers, which would be considered by the Authority during its reviews of the Water Corporations water charges. This is consistent with the principle that costs incurred exclusively on behalf of private parties who can be identified should be recovered from those parties (ultimately, IWSS water customers). Separate billing for the Water Corporation (and other large customers in the future) would also make it easier for the Department's customers to understand and scrutinise costs that are incurred on their behalf.

Outside of the IWSS, the Water Corporation's licensing fees would be charged on the same basis as all other water users.

### 4.4.3 Submissions

The Authority's recommendation in the Second Draft Report that the Water Corporation should be charged directly for its IWSS licensing costs was supported by the Department and the Water Corporation.

However, the Water Corporation noted that any direct charging would need to be accompanied by an agreement on service standards to be met by the Department.

Rio Tinto submitted that the separate billing arrangements for Water Corporation for the IWSS should also be made available to large customers (like Rio Tinto).

### 4.4.4 Authority Assessment

In line with the cost principles, the Authority recommends that the direct licensing costs for the Integrated Water Supply Scheme (**IWSS**) that are incurred efficiently each year by the Department be recovered from the Water Corporation through an annual charge.

As set out in Section 3.4.4, the Authority has assessed that in 2008-09, the efficient costs of IWSS licensing at \$272,430, although these costs would vary from year to year.

The Authority agrees that any cost recovery from the Water Corporation for IWSS licensing services would need to be accompanied by defined service standards, negotiated between the Department and the Corporation.

The Authority also recommends that the option of individual charging be made available to other large customers, if the administration costs are not prohibitive.

#### Licensing of Water Corporation in the IWSS

- 22) The direct licensing costs for the Integrated Water Supply Scheme (IWSS) that are incurred each year by the Department be recovered from the Water Corporation through an annual charge.
- 23) The option of individual billing be extended to other large customers, provided administrative costs are not prohibitive.
- 24) Any separate billing arrangements be accompanied by a set of service standards agreed between the Department and customer.

## 5 Water Metering Fees and Charges

This section considers the methods for recovering the Department's efficient costs of water metering, for water meters that are owned by the Department. Currently, this metering program only applies to particular licence holders on the Gngangara Mound and in the Carnarvon Groundwater Area. The Authority's recommended water metering charges are also provided in this section.

### 5.1 Background

The Department has an existing policy on metering, which requires that licence holders with allocations over 500 ML per year have to install, maintain and read their own meters, as part of their licence conditions and management of their own water use. Since this policy does not appear to result in any costs being incurred by the Department, there are no costs to be recovered from these licence holders.<sup>72</sup>

However, the Department has started to install meters for other licence holders with allocations above 50 ML per year in high demand and high risk areas (currently, the Carnarvon Groundwater Area and sub-areas on the Gngangara Mound). This metering program is currently funded by the Department, although funding is being sought from the Commonwealth Government to enable the Department to install meters for most licence holders with an allocation above 50 ML in the future.<sup>73</sup>

In relation to the cost recovery of these metering activities, the Authority's view in the first Draft Report was that there are private benefits that arise from metering, since licence holders will have more certainty about the amount of water that has been allocated to them in their licences as well as knowledge about how much water they are using. Further, in many instances licence holders can sell any water savings identified through metering to other water users. The Authority therefore suggested that it would be appropriate to recover all or most of the efficiently incurred costs associated with water metering from licence holders.

The Authority's preferred option of cost recovery for water metering activities was one where the costs of purchasing and installing meters are recovered by the Department over time through an annual charge, perhaps over the life of the meters. The ongoing operational costs for maintenance and readings that reflect the costs of providing the services should also be recovered from users through the annual charge.<sup>74</sup>

### 5.2 Department of Water Submissions

In its submission on the Authority's Draft Report, the Department supported the draft recommendation regarding the recovery of costs from metered licence holders. However, it made a number of comments about water metering as well.

The Department indicated that it is important to recognise that the cost of purchase and installation of water meters is not a one-off cost, as meters should be replaced periodically to maintain the performance of the meters. It also suggested that the costs associated

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<sup>72</sup> Department of Water's submission on the Issues Paper, p52.

<sup>73</sup> Ibid, p52.

<sup>74</sup> First Draft Report (December 2009), pp23-24.

with the analysis, storage and provision of meter reading data to licensees should be recovered.

It was noted by the Department that some licensees may raise equity concerns about this draft recommendation. This is because the Department has funded the purchase and installation of 1,250 state-owned meters across the Gngangara Mound since 2005 as part of its metering pilot project. No costs have been recovered from licensees, who were advised that they would not be charged for the installation and maintenance of those meters.<sup>75</sup>

In its cost information submission, the Department set out that under the metering activity, it undertakes the installation, maintenance and reading of State-owned water meters. The Department's metering program installs, maintains and monitors flow meters on bores within high use and high risk groundwater sub-areas on the Gngangara Mound and the Carnarvon Groundwater Area, for which water use information is critical for management. By the end of 2008-09, 1,266 meters had been fitted over a number of years across 18 groundwater sub-areas on the Gngangara Mound.<sup>76</sup>

The Department submitted that it incurred \$2,954,969 in 2008-09 in its water metering activities for both the Carnarvon Groundwater Area and the Gngangara Mound. The Department has only used the 2008-09 metering activity costs for the Gngangara Mound to provide a per meter cost, as these are the most recent. These costs, which are outlined in Table 5.1, only apply to licensees who have a state-owned meter in place.

**Table 5.1 Costs of Metering Activities per Meter Installed at Gngangara Mound in 2008-09**

Area	Activity	Cost (\$)	Number of meters	Cost per meter (\$)
Gngangara Mound	Meter supply and installation	1,461,925 <sup>(a)</sup>	398	3,673
	Meter maintenance	78,670 <sup>(a)</sup>	28	2,810
	Meter reading and other activities <sup>(b)</sup>	1,157,292	1,266	914 <sup>(c)</sup>
<b>Total</b>		<b>2,697,887<sup>(d)</sup></b>		

(a) Installation and maintenance costs as per contract for service for 2008-09. Costs do not include internal management costs.

(b) Other costs include program planning and management, establishing and managing installation and maintenance contracts, data management and reporting.

(c) Annual cost per meter – two readings per year. This applies to all metered licensees.

(d) Remaining costs of \$257,082 are for Carnarvon (the total cost of metering in 2008-09 was \$2,954,969).

Source: Department of Water (May 2010), *Costing of Water Activities*, p54.

### 5.3 Other Submissions

The Chamber of Minerals and Energy (CME) and the WA Local Government Association (WALGA), were concerned that their members would be charged for water metering activities by the Department – mining companies and local councils are required in some circumstances to install water meters and monitor and report on water use to the Department. The CME submitted that charges for water metering activities are not acceptable if water metering is provided and monitored by the user. WALGA suggested

<sup>75</sup> Department of Water's submission on the Draft Report, p4.

<sup>76</sup> Department of Water (May 2010), *Costing of Water Activities*, p27.

that local governments should be excluded from any charges associated with water metering as they undertake the metering activities, not the Department.

## 5.4 Second Draft Report

Consistent with the principles outlined in the first Draft Report, the Authority considered that it is appropriate for the Department to recover the costs it incurs for any metering services it provides to metered customers. These services include the front-end costs of supplying and installing meters, and ongoing costs of maintaining and reading meters, and any other services directly related to metered customers (e.g. managing meter data for the purpose of determining water use and efficiency for individual customers). However, it is important to note that the purpose of meter charges is to recover only the costs of metering activities carried out by the Department. If there are instances in which metered customers provide these services themselves they would be exempt from charges.

Following consideration of PwC's advice in relation to the Department's water metering activities and costs, the total efficient costs to be recovered from licence holders with State-owned meters on the Gngangara Mound were around \$2.6 million in 2008-09.

The Authority concurred with the view of the Department that all of the costs of its metering activities can be considered as private costs (costs of services provided for private parties who can be identified). For customers in regions where there is a high use of groundwater and where management of groundwater resources is critical, metering is necessary to provide sufficient information to provide water allocations to those customers. Alternatively, the metering services would not be required in the absence of these customers.

In terms of the charging structure, the Authority's view in the Second Draft Report was that an appropriate structure is one which separates the upfront costs of meter supply and installation from ongoing costs of meter reading and maintenance. Separation of these two different services would allow metered customers to out-source meter provision, installation or maintenance (subject to meeting service standards agreed with the Department), which could result in cost savings. However, it is likely that the Department would need to remain involved in meter reading to ensure data integrity.

Therefore, the Authority recommended that meter charges include:

- a separate fee per meter to cover the costs of meter supply and installation (which could be paid off over time in instalments by the customers); and
- an annual charge to cover the average costs per meter customer of providing meter reading and maintenance services.

The Authority considered that this was an appropriate approach to cost recovery for future meter services. That is, customers provided with these services from the time the charges are implemented would be required to pay. Customers who already have meters installed would therefore not have to pay for supply and installation of these meters, but would need to pay for meter reading and maintenance services provided by the Department for those meters, as well as the costs associated with meter replacements and any new meters installed.

In regard to the equity issue raised by the Department in its cost submission, while the Authority acknowledges that there is an inequity between licence holders who will have to pay for the supply and installation of new meters while existing users with water meters

did not have to pay, the Authority's proposal that existing users will have to pay for the supply and installation of meters when they are replaced will reduce this inequity issue over time.

## 5.5 Submissions on the Second Draft Report

The Department submitted that there should only be one annual metering charge per customer to cover all metering costs (installation, reading and maintenance, and eventual replacement at the end of the meter life), rather than an up-front charge for installation and a separate annual charge for meter maintenance and reading. This is because it is often cheaper to replace a meter than repair it. The Department also suggests that where customers read the meters themselves, charges should be reduced.<sup>77</sup>

Several submissions supported the option of self-reading and reporting by meter owners (WALGA, Shire of Nannup, Warren Blackwood Strategic Alliance, DAFWA, Manjimup and Pemberton Landowners, vegetablesWA and the Potato Growers Association of WA). WALGA supports the Authority's proposed approach to metering but recommends that licence holders have the option to purchase, install, maintain and read their own meters, in accordance with an agreed operating strategy.<sup>78</sup> The Shire of Nannup submitted that the Department should meet the cost of the meters and their installation, and that licence holders should be able to read their own meters and not incur the meter reading fee.<sup>79</sup>

DAFWA recommended that users be given the option to supply, maintain and read their own meters in accordance with standards agreed with the Department of Water. DAFWA's analysis included costs of \$1,100 for meter self-supply (compared with the Department's supply and installation costs of \$3,518) and \$10 per year for meter reading (compared with the Department's charges of \$935 for meter reading and maintenance).<sup>80</sup>

Manjimup and Pemberton Landowners did not support mandatory metering of water user. They submitted that the proposed annual fee of \$935 per year for maintenance and meter reading is excessive, as users often read the meters themselves.<sup>81</sup>

## 5.6 Authority's Assessment

After considering feedback provided by stakeholders at the round table forum in November 2010 and in submissions on the Second Draft Report, the Authority is proposing a different fee structure to recover the efficient water metering costs identified earlier in this section. The amended fee structure separates the services that could potentially be provided by the metered users themselves (or alternative metering service providers) instead of the Department, from those services that only the Department can provide. The Authority therefore recommends that:

- the up-front installation charge be amended to recover the costs of supply, installation and maintenance of water meters. This recognises the point made by the Department that meters may be replaced more cheaply than repaired. However, it is also possible that some metered users will be able to provide, install

<sup>77</sup> Department of Water's submission on the Second Draft Report, p9.

<sup>78</sup> WALGA's submission on the Second Draft Report, p5.

<sup>79</sup> Shire of Nannup's submission on the Second Draft Report, p2.

<sup>80</sup> DAFWA's submission on the Second Draft Report, p11.

<sup>81</sup> Manjimup and Pemberton Landowners' submission on the Second Draft Report, p9.

and maintain their own meters, subject to defined technical and services standards to be met by the users and occasional monitoring by the Department;

- meter reading costs be separated from maintenance costs, as the Authority expects that some metered users will choose to do their own meter reading and forego the meter reading charge; and
- the remaining metering costs of data management and administration that are carried out for the benefit of the licence holders be recovered through an annual charge per meter from all of the users with State-owned meters.

Based on the Authority's estimate of efficient costs of metering services for the Gngangara Mound in 2008-09, the Authority has determined that the average cost per customer for meter supply, installation and maintenance is \$3,705 per meter (which can be paid upfront or through annual instalments over the life of the meter), the meter reading cost is \$20 per read (currently read twice a year resulting in an annual cost of \$40 per meter) and the average annual cost per meter for metering data services is \$835.

In the case of services that are outsourced to meter users or alternative metering service suppliers, it will be necessary for the Department to carry out occasional audits to ensure that service standards are being met and meter readings are correct. These services would incur a small charge (i.e. an audit fee), to be paid by licence holders, but the Authority has not estimated this, as the nature and costs of this service would need to be determined.

The Authority has sought further information from the Department to verify the cost estimate for metering data services (\$835). The Department has confirmed that the costs of the metering data services were higher than normal in 2008-09, as it was early on in the metering program and included additional project management costs associated with establishing contracts for installation and maintenance. Consistent with the Authority's approach throughout this inquiry, these higher costs have already been met by public funds and will not be recovered from users, and it is unreasonable to base future charges on such costs. Based on the Department's 2010-11 budget estimates, the average annual cost for meter management activities are estimated at \$176 per meter.

The Authority also sought to determine the nature of the activities involved in metering data services. It is possible that there is a component of public good to these activities, as the use and collection of data from the metered users could be in the nature of allocation planning activities. According to the Department, metering data management and administration:

- allows the users to monitor and improve water efficiency and facilitates trading of unused allocations;
- supports the Department's compliance and enforcement function, by identifying usage above the allocation limit;
- provides input into groundwater models and assists with allocation planning; and
- assists in developing water accounts to meet obligations under the Commonwealth Water Act.

Thus, the activities are operational in nature, with a component of public good (in the same way that allocation planning activities have a public good component). Given this information, the Authority has made the following downward adjustments to the recommended fee for metering data services. Taking the Department's (2010-11) budget estimate of \$176 per meter:

- a 20 per cent reduction for efficiency has been applied, in line with the Authority's efficiency adjustments for operating expenditure;
- 30 per cent has been deducted to allow for public benefits associated with the metering data (consistent with the Authority's assumption of the public good component for allocation planning activities); and
- the figure has been deflated back to 2008-09 figures using the Perth Consumer Price Index, for consistency with the other recommended charges, and rounded down to the nearest \$5.

These steps produce an annual charge for metering data services of \$90. Table 5.2 shows that this would result in cost recovery of around \$1.62 million per year (in 2008-09 prices), compared with an estimate of efficient costs based on 2008-09 figures of \$2.58 million (but, as noted, this cost was artificially inflated by the setup costs of the program). The Authority considers that this is a conservative approach, erring on the side of under-recovery of costs. The Authority recommends that the Department continue to collect information on the costs its metering activities over the next few years until the charges are reviewed.

**Table 5.2 Authority's Proposed Water Metering Charges**

Metering	Number of Meters	2008-09 Efficient Costs to be Recovered (\$)	Cost/Charges per Meter (\$)
Total costs		2,840,857	
Carnarvon costs		257,082	
<b>Estimated total costs (2008-09 figures)</b>		<b>2,583,775</b>	
Meter supply, installation and maintenance	398	1,475,433 <sup>(b)</sup>	3,705
Meter reading (per reading)	1,275 <sup>(a)</sup>	25,575	20
Metering data services (annually)	1,275 <sup>(a)</sup>	114,750 <sup>(a)</sup>	90 <sup>(a)</sup>
<b>Total costs to be recovered</b>		<b>1,615,758</b>	

Notes:

- (a) Estimate based on the 2010-11 budget estimate and the number of meters in place in 2010-11, which provides a better guide to the average annual cost of these services.
- (b) Efficiency reductions of 5 per cent for corporate overheads and 20 per cent for operating expenditure have been applied.

## Water Metering

- 25) The costs incurred by the Department on behalf of metered customers (currently only particular licence holders on the Gngangara Mound and in the Carnarvon Groundwater Area) be recovered from those customers, in the form of:
- an up-front charge per meter to recover the costs of meter supply, installation and maintenance for new customers (and existing customers when meters are replaced);
  - a charge per meter reading to recover the costs of meter reading for existing and new customers; and
  - an annual charge per meter to recover the average costs of metering data services, such as data management and administration, where these are provided for the private benefit of the existing and new metered customers.
- 26) The metered customers on the Gngangara Mound and in the Carnarvon Groundwater Area should have the option to read their own meters and forego the meter reading fee. A small audit fee (to be determined) would apply for occasional audits of meter readings by the Department.
- 27) The metered users should be able to provide, install and maintain their own meters, subject to defined technical and services standards to be met by the users. Where this is the case, the up-front charge per meter should not apply. A small audit fee (to be determined) would apply for occasional monitoring of metering standards by the Department.



## 6 Water Source Protection Fees and Charges

Costs are incurred by the Department in relation to the protection of drinking water sources that are then licensed for abstraction by water service providers, such as the Water Corporation, Aqwest (Bunbury Water Board) and Busselton Water.

This section outlines the proposed method to recover the efficient costs incurred by the Department in providing drinking water source protection services to water service providers.

### 6.1 Background

The Department is responsible for protecting the quality of drinking water sources in Western Australia so that the public has access to a reliable, safe, good quality drinking water and public health is not compromised. To achieve this, the Department prepares drinking water source protection plans for new and existing water sources, which provide guidance on appropriate land use activities and identify actions necessary to protect the quality of the resource.<sup>82</sup>

In December 2010, there were 139 public drinking water sources in proclaimed areas in Western Australia (excluding remote aboriginal communities and remote mine sites), of which 110 have water source protection plans in place. The Department prepares between 10 and 15 plans each year depending on how complex the plans are. Fourteen plans were prepared in 2009-10.

According to the Department,<sup>83</sup> the amount of effort involved in preparing water source protection plans depends on the complexity of:

- land uses;
- geographical location; and
- the level of community interest/stakeholder involvement.

The protection of public water supplies requires contributions from a number of activities undertaken by the Department, not just the activity of preparing drinking water source protection plans. This includes: groundwater assessment, investigation and review; preparation of guidance notes; implementation of water source protection plans; acquisition of P1 (Priority 1) land; and land management. P1 land is land that is proclaimed as a public drinking water source protection area and that is managed in a way so as to ensure that there is no degradation of the water source.

The Department's view is that all of these activities support the service of protecting public drinking water supplies, which are carried out for identifiable third parties (public drinking water suppliers on behalf of their customers). All the costs incurred in providing the service should therefore be recovered from public drinking water suppliers.

In its submission, the Department classified plans into two categories, simple and complex. The Department then estimated that a simple plan requires 35 per cent of the

<sup>82</sup> Department of Water (May 2010), *Costing of Water Activities*, p19.

<sup>83</sup> Ibid, p57.

effort of a complex plan. It should be noted that the acquisition of P1 land and land management do not apply across all public drinking water sources.<sup>84</sup>

The number of simple and complex plans for each service provider is provided in Table 6.1, with the vast majority of plans applying to the Water Corporation's drinking water sources.

**Table 6.1 Number of Water Source Protection Plans by Water Service Providers**

Service Provider	Number of Simple Plans	Number of Complex Plans	Total Plans
Water Corporation	64	36	100
Aqwest	0	1	1
Busselton Water	1	0	1
<b>Total</b>	<b>65</b>	<b>37</b>	<b>102</b>

Source: Department of Water (May 2010), *Costing of Water Activities*, p59.

The Department suggested that for the acquisition of P1 land and the ongoing management of this land, costs should be recovered from the relevant public drinking water service provider on a case-by-case basis.

The Department generally only buys one or two properties each year, and sometimes there are no acquisitions. In 2008-09, the Department purchased two properties in highly vulnerable groundwater sources. Both of these sources are operated by the Water Corporation.

In regard to the ongoing management of land, the Department advised that all P1 properties owned by the Department are located in drinking water supply catchments operated by the Water Corporation. It therefore suggests that the ongoing management costs for P1 land should be recovered from the Water Corporation.<sup>85</sup>

## 6.2 Second Draft Report

The Authority's view was that all of the costs of the activities that contribute to water source protection services of public drinking water sources should be recovered from public drinking water suppliers. The efficient costs of preparing and implementing water source protection plans were estimated to be \$1.6 million in 2008-09 and the majority of these costs could be allocated to the Water Corporation as it was the major user of this service during the year.

However, the Authority was concerned that the level of effort to prepare water source protection plans may not be efficient, and that there may be other options that could achieve safe drinking water supplies at a lower cost. PricewaterhouseCoopers observed in its report to the Authority that there is a potential for the Department to over-service water source protection in the form of increased quality of plans and possibly plan coverage of public drinking water sources. This is because:

<sup>84</sup> Ibid, p57.

<sup>85</sup> Ibid, p59.

- [P]lans are produced to a standard set out by the *Australian Drinking Water Guidelines 2004*, which may not necessarily reflect the most efficient level of planning;
- neither the Water Corporation nor the Health Department face the costs of the demands they place on the Department for this activity – that is, the economic costs of restricting activities (in terms of welfare reduction) are not necessarily factored into the cost-benefit assessment of protecting water quality through preventative planning measures as opposed to addressing quality problems as they emerge;
  - in particular, the Water Corporation has a commercial interest to minimise the potential future costs of treating contaminated water, and will therefore have an incentive to use the planning process to restrict catchment activities that could have adverse impacts on water quality and/or yield; and
- there is an untested assumption that high-quality protection plans are required for all water sources – whereas, there may be scope for reducing the quality of these plans to meet a ‘fit for purpose’ criterion. (PwC report, pp78-79.)

The implementation of charges for water source protection services may improve the efficient level of water source protection planning being undertaken by the Department, although it is unlikely to have a major effect on the incentive for the Water Corporation to use this planning process instead of other, possibly more efficient, options.

In regard to the acquisition of P1 land and the ongoing management of this land, the Authority suggested that the efficient costs should be recovered from the relevant public drinking water service provider on a case-by-case basis as costs are incurred.

The Authority did not estimate what the indicative charges for water source protection would be in the Second Draft Report. Instead it recommended that the total amount of the actual costs incurred by the Department in providing water source protection services should be recovered from the service providers at the end of each financial year. This should be based on mutual agreement about the work that should be undertaken and the Department should provide the service providers with the estimated costs of this work at the beginning of each year.

### 6.3 Submissions on the Second Draft Report

In response to the findings in the Second Draft Report, the Department submitted that water source planning and protection is the most efficient and effective way to protect public health, as a preventative approach is much less costly than treating contaminated water. The Department’s management response is tailored to the risk assessment of each plan and the main cost driver is legislative requirements.<sup>86</sup>

The Department also submitted that for cash flow reasons it should recover estimated costs at the start of the financial year, with a correction at the end of the year to match actual costs.<sup>87</sup>

If costs were to be recovered from water service providers, the Water Corporation has indicated that it would like to have an influence on the water source protection activities it would be paying for, either directly through the purchase of specific services, or indirectly through the setting of priorities for the Department to align with those of the Water Corporation. The Corporation would like to identify priority drinking water source

<sup>86</sup> Department of Water’s submission on the Second Draft Report, pp9-10.

<sup>87</sup> Ibid, p2.

protection plans and agree with the Department on appropriate timetables for completing such plans.<sup>88</sup>

The Water Corporation supported the Authority's recommendation in the Second Draft Report, but submitted that if it is required to pay for the purchase of P1 land then it would expect to obtain the title to such land.<sup>89</sup>

Rio Tinto submitted that costs associated with protection of public drinking water sources are in the nature of public goods and should be funded out of consolidated revenue. Rio Tinto also seeks clarification on other issues, including whether the charges would be applied to small public drinking water suppliers (Rio Tinto is a licensed public drinking water supplier to Dampier, Tom Price and Paraburdoo); and how charges would be levied for existing plans as opposed to new plans.<sup>90</sup>

## 6.4 Authority Assessment

The Authority remains of the view that all of the costs of the activities that contribute to water source protection services of public drinking water sources should be recovered from public drinking water suppliers. As the Department's water source protection activities vary each year, the total amount of the actual costs incurred by the Department in providing water source protection services to a service provider each year should be recovered from the service providers. This should be based on mutual agreement about the work that should be undertaken on behalf of each water service provider.

In the Second Draft Report, the Authority recommended that the costs incurred by the Department be recovered from the service providers at the end of each financial year. However, the Authority supports the Department's view that for cash flow reasons, the estimated costs should be recovered from water service providers at the start of the financial year instead, with a correction at the end of the year to match actual costs.

The Authority notes the PwC observation that there is limited assessment of the costs and benefits of alternative approaches to water source protection and planning, and also the submission by the Department that a preventative approach is the most effective and efficient way of protecting public health. The Authority is not in a position to determine the optimal approach to the management of public drinking water sources. However, as with any activity involving large public expenditure, it is important to consider the costs, risks and benefits of alternative management strategies, particularly in cases where these could result in substantial cost reductions but negligible increases in risks.

The Authority's views in regard to the acquisition of P1 land and the ongoing management of this land is that the efficient costs should be recovered from the relevant public drinking water service provider on a case-by-case basis as costs are incurred. The Water Corporation submitted that if it is required to pay for the purchase of P1 land then it would expect to obtain the title to such land.

This seems like a reasonable request to the Authority, and the Department has indicated that it has no in-principle problem with the Water Corporation holding the title to the land. The Corporation already holds significant land for catchment protection purpose which it manages. In addition, the Corporation has delegated powers under the Department's by-laws, which are currently being reviewed (that cover issues such as catchment

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<sup>88</sup> Water Corporation's submission on the first Draft Report.

<sup>89</sup> Water Corporation's submission on the Second Draft Report.

<sup>90</sup> Rio Tinto's submission on the Second Draft Report.

surveillance). There are also the protection plans that apply to the Corporation, which outline minimum requirements for land management. Beyond this, there could also be a Memorandum of Understanding to specify minimum management requirements if necessary, but the Department has advised that this would not be required in the current setting.<sup>91</sup> However, the implications for the Government of the Water Corporation holding the titles to P1 land would need to be examined in more detail prior to implementation.

In regard to the issues raised by Rio Tinto in its submission on the Second Draft Report, the Authority's position is that any water source protection costs incurred by the Department on behalf of licensed public drinking water suppliers should be recovered from those incurring the costs. The Authority is not suggesting that the costs that were incurred to prepare existing drinking water source protection plans be recovered from service providers. However, any ongoing implementation and management costs identified in the plans should be recovered from water service providers. It is understood that the only water service providers that are currently causing water source protection costs to be incurred by the Department are the Water Corporation, Aqwest and Busselton Water.

On the basis of the Authority's assessment, the efficient actual costs that would have been recovered from the service providers in 2008-09 are as outlined in Table 6.2.

**Table 6.2 2008-09 Indicative Annual Charges for Water Source Protection Services**

Services	Annual Charges (\$)
<b>Preparation of plans; groundwater assessment, investigation and review; preparation of guidance notes; and implementation of plans</b>	
Water Corporation	1,578,064
AQWEST	27,031
Busselton Water	9,461
<b>P1 land management</b>	
Water Corporation	55,865
<b>Purchase of P1 land</b>	
From relevant service providers	Case-by-case basis

## Water Source Protection

- 28) The estimated efficient costs incurred by the Department in providing water source protection services be recovered from the service providers (Water Corporation, Aqwest and Busselton Water) at the start of each financial year, with an adjustment at the end of the financial year to reflect any changes in the efficient actual costs that were incurred.

<sup>91</sup> Information provided by the Department of Water.

## 7 Fees and Charges for Other Services

### 7.1 Background

There are a range of other services provided by the Department for other parties such as government agencies, local government authorities, the Western Australian Planning Commission (WAPC) and private developers. These services involve investigation of water resources and the provision of information and advice on water resources, in many cases to assist land development and the management of drainage and floodplains. This section discusses the potential for cost recovery by the Department for the activities of:

- providing advice on statutory referrals;
- arterial drainage studies, as part of guiding urban water management;
- providing floodplain management advice; and
- providing water information.

### 7.2 Urban Drainage and Water Management

#### 7.2.1 Background

The Department's urban drainage and water management activities are divided into two different sections:

- Urban drainage planning and water assessment, which develops drainage and water management plans for urban and coastal areas. This section also leads the development of best management practices for water resources and industry guidelines for planners and developers.
- Water and land use coordination, which provides advice to decision-making authorities, such as the WAPC, on planning proposals that have water management implications. This includes assessment of subdivision applications referred to the Department by the WAPC. The water and land use coordination section also develops strategic planning guidance on how the development industry can meet water resource management requirements, and cooperates with other Departments and the development industry to streamline approvals processes.<sup>92</sup>

For most of these activities, the costs that are incurred are not caused by a particular user or group of users, and as such the wider community should continue to pay for most of the urban water management activities. However, the Authority identified two activities where services are provided for identifiable private parties and where costs may be recovered:

- providing advice on statutory referrals; and
- arterial drainage studies (part of urban drainage management).

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<sup>92</sup> First Draft Report (December 2009), pp20-21.

## 7.2.2 Advice on Statutory Referrals

The Department provides advice to the WAPC and local governments on specific planning and development proposals which have water management implications. Proposals range from local subdivision and development applications, to strategic regional scale schemes or planning proposals.

The Department responds to around 2,000 statutory referrals of land planning and development applications from local governments and the WAPC every year.

The service that is undertaken by the Department is the provision of advice to decision making authorities on water management impacts (including impact on water source protection areas) of proposed land use development.

The provision of advice on statutory referrals is supported by some other activities, namely the implementation of water source protection plans and the preparation of guidance notes. The majority (80 per cent) of activities relating to the implementation of water source protection plans relate to the provision of advice on land use and development proposals in drinking water supply catchments. The Department also produces guidance notes on the impact of land use and development proposals.

The Department advised that it is moving towards investing more effort at the strategic level, as this will minimise the need for it to be involved in local scale proposals in the future.<sup>93</sup>

### Department of Water Submission

In 2008-09, the Department responded to 2,189 statutory referrals. These referrals varied considerably in their complexity and the effort involved in responding. The Department receives five different types of statutory referrals (not just subdivision plan referrals), which are listed in Table 7.1. In order to understand the level of effort involved in responding to the various statutory referrals, the Department implemented a two month time-keeping exercise for relevant staff. Officers were asked to record the level of effort that was involved in responding to the five different types of statutory referrals and to record additional details around the complexity, amount of public interest and water resource risk. In addition, they were asked to record whether or not the referral involved assessment of a technical report, which requires additional effort. The results of this time-keeping exercise are outlined in Table 7.1.<sup>94</sup>

<sup>93</sup> Ibid, p18.

<sup>94</sup> The Department of Water advised that the results should be treated with some caution as there are some inherent assumptions and limitations to the data and approach taken, which have largely arisen due to the short timeframe available for data collection and analysis. As a result, it is likely that the results of the analysis would change if the exercise was performed over a longer period of time. For more information on the limitations and assumptions, see Department of Water (May 2010), *Costing of Water Activities*, pp63-64.

**Table 7.1 Relative Effort Involved in Responding to Statutory Referrals (April-May 2010)**

Referral Type	Number of Referrals Received	Percentage of Total Effort Involved
Sub-division and development applications	233	45
Local planning proposals	40	38
District planning proposals	20	14
Regional planning proposals	3	0
Clearance of sub-division conditions	8	2

Source: Department of Water (May 2010), *Costing of Water Activities*, p62.

The Department prepared a table that shows the relative costs of simple, medium and complex referrals for the sub-division and development referrals, and the local and district level planning proposals (see Table 7.2). Due to data limitations, regional planning proposals and the clearance of sub-division conditions were excluded from this analysis.

For the three categories of referrals, the level of effort involved seems to reflect the level of complexity. However, the level of effort involved in responding to district planning proposals may be understated due to the limitations of the data outlined in the Department's submission.<sup>95</sup>

**Table 7.2 Relative Costs of Simple versus Complex Referrals (2008-09)**

Referral Type	Average Cost, High Complexity Referrals (\$)	Average Cost, Medium Complexity Referrals (\$)	Average cost, Low Complexity Referrals (\$)
Sub-division and development applications	2,060.64	1,545.57	414.12
Local planning proposals	5,304.11	3,941.53	646.95
District planning proposals	3,237.28	1,945.19	1,184.03

Source: Department of Water (May 2010), *Costing of Water Activities*, p64.

The Department also assessed the level of effort involved for the different referral types depending on whether or not a technical report was submitted and required consideration. As can be seen in Table 7.3, the level of effort involved increases significantly where a technical report is attached to an application for most statutory referral types. The exception is the time taken for regional planning proposals and clearance of sub-division conditions, where less effort seems to be involved when a technical report is attached. This could be as a result of data limitations, or for sub-division clearances, it could be that the information provided in a technical report makes the Department's assessment process quicker.<sup>96</sup>

<sup>95</sup> Department of Water (May 2010), *Costing of Water Activities*, p64.

<sup>96</sup> Ibid, p64.



**Table 7.3 Level of Effort Involved, With and Without Technical Reports**

Referral Type	Average Hours With Technical Support	Average Hours Without Technical Support	Average Hours Total
Sub-division and development applications	2.96	0.76	1.16
Local planning proposals	7.74	1.93	5.64
District planning proposals	4.95	2.64	4.26
Regional planning proposals	0.75	0.83	0.78
Clearance of sub-division conditions	1.00	1.60	1.46

Source: *Department of Water (May 2010), Costing of Water Activities, p65.*

The Department submitted that it expects that the number of statutory referrals will continue to increase over time, although it is working on reducing this workload through working with local governments to increase their capacity to assess water management issues, and through streamlining its responses to sub-division applications.<sup>97</sup>

### Second Draft Report

The Authority's view in the Second Draft Report was that the costs incurred by the Department in assessing sub-division and development applications, clearing subdivision conditions and local planning proposals should be recovered from the users, as these can be identified. In 2008-09, the efficient costs of these three services to be recovered were approximately \$1.7 million. The indicative average charges proposed in the Second Draft Report to recover these costs are shown in Table 7.4.

The Authority proposed that charges not be differentiated for the level of complexity of the statutory referrals at this stage due to the limited data available to the Department in estimating the levels of effort for the different types of referrals. However, the Authority recommended that the Department continue to collect data to enable it to analyse and determine the level of effort that is required for low, medium and high complexity referrals for the subsequent review of fees and charges that was proposed by the Authority in the first Draft Report.

**Table 7.4 Authority's Proposed Charges for Statutory Referrals Identified for Cost Recovery (Second Draft Report)**

Referral Type	Average Charges* (\$)
Sub-division and development applications	610
Clearance of sub-division conditions	768
Local planning proposals	2,967

\* Based on recovery of efficient costs and annualised number of referrals.

The Authority did not recommend that the costs incurred by the Department in responding to the other statutory referrals (district planning proposals and regional planning proposals) be recovered from users, as it is difficult to identify specific users of the service, in particular the future users.

<sup>97</sup> Ibid, p65.

## *Submissions on the Second Draft Report*

The Department submitted that in order for it to be able to levy charges for statutory referrals, it would need to have an agreement with the Western Australian Planning Commission (WAPC). The Department also submitted that there is a large degree of variation in the complexity and public good component of local statutory referrals and that it was concerned that the average charges proposed by the Authority would be unfair to some proponents.

The Department proposed that recovery of the costs of local planning proposals be deferred until a later period, when the Department has had time to further investigate the costs and private/public benefits associated with different types of referrals.

In a joint submission, Department of Planning (DoP) and the WAPC strongly submitted that it was not appropriate or cost effective to recover costs associated with assessment and referral activities undertaken by the Department of Water for statutory planning purposes. The DoP submitted that:

- the role of the WAPC is as a gatekeeper to enforce and support the policy requirements of the Department of Water, such as the Better Urban Water Management framework, developed jointly between the Department and the WAPC;
- cost recovery for activities related to land development and planning was not consistent with the NWI principles for cost recovery, which recommend cost recovery for water resource management and planning activities undertaken as a result of water use, and do not extend to activities taken to manage land-based impacts, such as those associated with land clearing;
- urban water management activities assessed by the Department for statutory planning purposes (such as those associated with the implementation of water sensitive urban design, a Department initiative) have broad public benefits and do not meet the definition of private goods;
- any cost recovery by the Department would need to be directly from the proponents, and not via the WAPC, as this would involve a double handling of fees and unnecessary administrative costs. The costs of such administrative arrangements would be complex and would need to be reviewed;
- the WAPC refers planning proposals to a range of organisations to ensure proposals comply with policy objectives and legislation. If all agencies were to charge for such referral assessments the costs to the WAPC would be substantial; and
- charging for statutory referrals runs counter to the collaborative working relationships between agencies in the development and implementation of integrated land use planning.

The Department supported the Authority's recommendation in the Second Draft Report that district and regional planning costs be recovered from public funds.

WALGA was strongly opposed to the recovery of Department costs associated with sub-division and development applications, clearance of sub-division conditions, and local planning proposals. WALGA submitted that:

- the fee structure is inequitable, as statutory referrals that require little effort would be charged the same as those that are complex;
- the level of fees could deter development and the implementation of best practice water management, and make housing more unaffordable;
- local government should not be used as a collection agency for the State government; and
- the services provided by the Department are primarily to prevent adverse outcomes and should be seen as public goods and funded accordingly.

### *Authority Assessment*

The Authority considers that, in principle, the efficient costs incurred by the Department in assessing statutory referrals in relation to sub-division and development applications, clearing subdivision conditions and local planning proposals should be recovered from the users of these services (ultimately the party initiating the sub-division, development or planning proposal) if the administrative costs of doing so do not outweigh the benefits.

As discussed in Section 2.3.1.1, the Authority has applied the principle that if water resource management and planning costs are being incurred by the Department on behalf of identifiable private parties, and there are net benefits to recovering the costs of those activities from those parties, then the costs should be recovered. This will apply to the activities identified in the NWI principles for cost recovery, but could also apply to other water resource management activities that meet the Authority's principle.

However, the Authority accepts that the efficient costs incurred in providing information for district planning proposals and regional planning proposals should not be recovered from the users of those services, as it is generally not possible to identify those who cause the costs to be incurred.

The current legislation does not provide the Department with the power to levy such charges without agreement with the WAPC. The Authority does not anticipate that it would be possible for the Department to reach agreement with the WAPC to levy charges for statutory referral activities.

Further information is needed on the costs of different types of statutory referrals. The Authority therefore recommends that cost recovery for statutory referral activities be reviewed following the introduction of new water resources legislation, and that the Department continue to collect information on its statutory referral activities.

### **7.2.3 Arterial Drainage Studies in Urban Drainage Management**

The Department's sub-activities under urban drainage management are:

- drainage and water management planning;
- arterial drainage studies; and
- some groundwater assessment, investigation and review.

### *Department of Water Submission*

The Department provided more detailed information about the sub activities undertaken in the urban water management area in its cost information submission, which was provided to the Authority on 31 May 2010.

The drainage and water management planning activity, which is largely driven by the rapid urban expansion of Perth into high water table areas,<sup>98</sup> involves the Department undertaking technical assessments and developing drainage and water management plans for proposed future urban development areas. These plans provide guidance to planning organisations, such as the WAPC, and developers on water management issues and how they should be considered in the planning and development process.<sup>99</sup> The Department has not allocated any of these activity costs, or the small contribution from the groundwater assessment, investigation and review activity costs, to private parties, as the Department does not believe that private parties can be identified.

Under the arterial drainage studies sub-activity, the Department is implementing the Better Urban Water Management framework in existing drainage areas. This includes the development of best urban water management practices, progressing drainage governance issues, planning drainage research and development, and undertaking studies and assessments to address management issues (such as nutrient discharge) and explore opportunities for retrofitting of drains to improve water management outcomes. The studies also address the need to upgrade or maintain existing drainage infrastructure to improve performance.<sup>100</sup>

The key service undertaken by the Department, based on the activities discussed above, is the provision of advice to guide the management of water in urban areas.

The Department advised that it cannot determine the cost per unit of output for services related to guiding urban drainage and water management at this stage, including the cost per unit output for arterial drainage studies. This is because there is no defined standard product for arterial drainage studies, with the scope of the studies varying greatly depending on the management issues involved. The Department submitted that it needed more time to collect information on the scope of each study, activities involved and the costs that are incurred in providing these studies.

### *Second Draft Report*

The Authority's view was that some of the activities involved in urban drainage management (drainage and water management planning and associated groundwater assessment, investigation and review) were of a high level, regional or strategic nature. As these activities are often aligned with planning for future development, it is not possible to identify the parties for whom the service is provided. It is therefore appropriate for these activities to be publicly funded.

However, in the case of arterial drainage studies, the identification of the private parties who require the service may be possible, and in this case, charges may be appropriate. The Authority estimated the Department's efficient costs of arterial drainage studies in 2008-09 at around \$1.25 million. The Department was not able to provide estimates of the unit cost of these studies the Authority therefore did not recommend any proposed charges. However, the Authority recommended that the Department continue to collect information about these services and their costs, to enable the introduction of charges in the future.

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<sup>98</sup> For example, the localities of Byford, Jandakot and Murray.

<sup>99</sup> Department of Water (May 2010), *Costing of Water Activities*, p16.

<sup>100</sup> *Ibid*, p17.

### *Submissions on the Second Draft Report*

The Department disagreed that it should collect further information on urban drainage management costs in order to develop fees. The Department submitted that the costs of these services should be recovered from public funds as they are strategic in nature, impactors cannot be identified, and many costs are associated with legacy issues. Further, the Department submitted that the scope, complexity and cost of arterial studies is highly variable, and it does not have sufficient information to be able to determine unit costs.

The comments by the Department of Planning and WAPC in the previous section (on statutory referrals) apply equally to the activities of the Department in its drainage management activities. Both agencies are strongly opposed to the recovery of costs by the Department for activities associated with drainage management and studies.

The Water Corporation is also of the view that drainage management activities are often in the nature of a public good and should continue to be funded by consolidated revenue.

WALGA submitted that urban drainage management services provided by the Department to local government are in the nature of public goods as they protect roads from flooding and benefits the wider community. These services should therefore be publicly funded.

### *Authority Assessment*

The Authority supports the principle that efficient costs incurred by the Department for identifiable private parties as part of guiding urban drainage and management be recovered from the users of these services (such as planning agencies, local government and developers). Guiding urban water drainage and management involves drainage and water management planning, arterial drainage studies, and the investigation, assessment and review of groundwater resources in urban areas. Of these activities, the Authority considers that only arterial drainage studies are carried out for private parties, and that the other activities are largely of a public good nature.

The development of charges for arterial drainage studies has not been possible due to the lack of information on unit costs of such studies, which vary in their scope, complexity and cost. Implementation of charges would also be complicated by the need for agreement on a charging mechanism between the Department and the users of the service.

The Authority therefore recommends that cost recovery for arterial drainage studies be deferred and that the Department should continue to collect information about these services and their cost to enable the introduction of charges in the future.

## **7.3 Floodplain Management Advice**

Floodplain management advice involves the Department providing advice to decision-making agencies (mostly local governments) on floodplain areas and flood levels, which are often related to specific planning and development proposals. The objective of this sub-activity is to protect life and property, by ensuring that development does not occur in areas with an unacceptable risk of flood.<sup>101</sup>

The Authority did not identify this service as being suitable for immediate cost recovery in its first Draft Report.

<sup>101</sup> Ibid, p18.

### **7.3.1 Department of Water Submission**

The Department believes that all the costs of undertaking this service can be allocated to private users, which include proponents of land use and development proposals in or near floodplain areas via local governments, WAPC or consultants. The Department also receives requests for information from property valuers, real estate agents and other government agencies.

The Department responds to around 900 floodplain enquiries every year, and it can take anything from thirty minutes to as much as four days to provide the advice. In 2008-09, the Department responded to 895 requests for floodplain information at a cost of \$728,300. Based on this information, the average cost per enquiry was \$814. The Department does not have any data to distinguish the costs of different requests, which vary depending on the complexity or scope of a request.<sup>102</sup>

As the cost per service is quite small, the Department suggested that the administration costs of recovering these costs in a number of ways may outweigh the benefits.<sup>103</sup>

### **7.3.2 Second Draft Report**

The Authority estimated that the efficient costs incurred by the Department in its provision of floodplain management advice in 2008-09 were \$603,046. Based on the 895 requests for information received in 2008-09, the efficient average cost per enquiry was \$674.

The Authority's draft recommendation in the Second Draft Report was that the efficient cost of providing floodplain management be recovered from users, initially through an average charge of \$674 per enquiry. The Authority recommended that once the Department had collected information about costs of different requests, charges which better reflect the level of effort involved in providing the advice should be implemented.

However, the Department suggested that since the cost per service is quite small, the administration costs of recovering the costs of providing floodplain management advice may outweigh the benefits. The Authority needed further information from the Department to establish whether or not this is the case, and if it is, cost recovery of this activity would need to be reconsidered before the final report is delivered to the Government.

### **7.3.3 Submissions on the Second Draft Report**

The Department considered that the benefits of cost recovery for these services would outweigh the costs. However, the Department considered that cost recovery should be deferred, due to the large variation in the complexity and degree of public benefit in the advice provided. The Department proposed further investigation of the costs of this service.

The Water Corporation agreed that floodplain management costs should be recovered, but only to the extent that the services provide private benefit.

WALGA submitted that these services are in the nature of public goods and should be publicly funded. Further, the information on these services should be made publicly available to reduce the costs of information provision by the Department.

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<sup>102</sup> Ibid, pp67-68.

<sup>103</sup> Ibid, p68.

### 7.3.4 Authority Assessment

The Authority supports the principle that the efficient costs incurred by the Department in providing floodplain management advice to private parties (e.g. developers) be recovered from those parties. However, it has not been possible in this inquiry to establish a unit cost for this service, due to the variable nature of the advice provided. It is also unclear whether or not the administrative costs of a charging scheme would outweigh any benefits of cost recovery.

The Authority therefore recommends that cost recovery for providing advice on floodplain management be deferred and that the Department continue to collect information on the costs of this service.

## 7.4 Provision of Water Information

The Department provides information on water resources in response to requests from a wide range of parties, including consultants, state and federal government agencies, universities, companies and private individuals.

### 7.4.1 Department of Water Submission

The Department estimated that the service of providing water information incurred total costs of \$553,154 in 2008-09. There was only one activity (water information provision) associated with this service, which is carried out by the Department's data provision group. Records on information requests maintained by the group (including the scope of the data requested and the party making the request) show that 51 per cent of the requests are for private parties (e.g. companies, developers, private individuals). The remainder of the requests are for government, universities and non-government organisations. The Department therefore submitted that 50 per cent of costs (\$276,577) could be recovered from private parties.<sup>104</sup>

The Department submitted that in 2009, 1,804 information requests were received from private parties, giving an average cost per data request of \$153.

It is anticipated that there may be less demand for this service in the future, as the Bureau of Meteorology (**BOM**) will be making information from its Australian Water Resource Information System freely available. Furthermore, the Department submitted that the cost of recovering the costs of water information provision is likely to outweigh the benefits.<sup>105</sup>

### 7.4.2 Second Draft Report

The Authority's view in the Second Draft Report was that the efficient cost of providing water information to private parties (totalling \$233,272 in 2008-09) should be recovered from these users. Based on the 2008-09 costs, the efficient average cost per enquiry was estimated at \$129.

As with cost recovery for floodplain management advice, the Department submitted that the cost per service is quite small, and that the administration costs of recovering the costs of providing water information may outweigh the benefits. The Authority requested further information from the Department to establish whether or not this is the case. The

<sup>104</sup> Ibid, pp68-69.

<sup>105</sup> Ibid, p69.

Authority also recommended that, in the event that the information does become available for free from the BOM, the Department should wind back its services in this area and refer any enquiries to the BOM.

### **7.4.3 Submissions on the Second Draft Report**

The Department submitted that the benefits of recovering the Authority's estimated \$233,272 of efficient costs of this activity would be marginal, due to the associated administrative costs:

The Department of Water has estimated the costs to administer a scheme to invoice approximately 1,800 customers each year....The costs would be in the order of \$110,000 per annum, comprising staff time and 10 per cent for bad and doubtful debt. This does not incorporate any costs to establish the system... (Department of Water submission on Second Draft Report, p13).

The Department submitted that these marginal benefits of cost recovery were insufficient to justify cost recovery for the establishment of a charging system.

The Department supported the Authority's recommendation in the Second Draft Report that the Department's water information provision services should be wound back if the BOM is providing this information for free.

### **7.4.4 Authority Assessment**

The Authority recommends that, in principle, the Department should recover the costs of providing water information from those requesting the information (e.g. developers, real estate agents, local councils). However, it is likely that the administrative costs of implementing cost recovery for this activity would outweigh any benefits of doing so. The Authority has therefore not recommended any charges for this service.

It is possible that the water advice provided by the Department will to be made available free of charge from the BOM. In this event, the Department should cut back its water information provision service and refer any enquiries from private parties to the BOM.



## Cost Recovery for Other Services

- 29) In principle, the efficient costs incurred by the Department in:
- assessing statutory referrals in relation to sub-division and development applications, clearing of sub-division conditions and local planning proposals;
  - providing advice on arterial drainage studies as part of urban drainage planning;
  - providing advice on floodplain management; and
  - providing water advice

be recovered from the parties who cause the costs to be incurred, if the administrative costs of charging for these services do not outweigh the revenue collected. In the case of providing advice on floodplain management, or providing water advice, the costs of charging are likely to outweigh the benefits.

- 30) The Authority has not recommended charges for these services due to the lack of information available on the costs of the services provided, which are highly variable in their nature, complexity and effort involved.
- 31) The fees and charges for the other services listed above, and the powers available to the Department to levy the charges, be reviewed following the introduction of new water resources legislation.
- 32) The Department continue to collect information on the different services provided in these activities, taking into account the differences in complexity.
- 33) The efficient costs incurred by the Department in providing information for district planning proposals and regional planning proposals be publicly funded.
- 34) If the provision of water information becomes available for free from the Bureau of Meteorology, the Department should wind back its water information provision.

## 8 Impacts on Water Users and Ability to Pay for Different Water Users

### 8.1 Terms of Reference

In making its recommendations to the Government, the Authority is required to provide options that include:

- the implementation impacts for various types of users, including a sensitivity analysis on capacity to pay assumptions; and
- opportunities for implementation under both the existing legislative responsibilities of the Department of Water as well as those specified by the National Water Initiative.

The Authority is also required, in developing its recommendations, to have regard to:

- the Government's social, economic and environmental policy objectives;
- the Government's obligations as a signatory to the National Water Initiative Intergovernmental Agreement; and
- any relevant pricing principles arising from the 1994 Council of Australian Governments water reform agreement and the National Water Initiative.

### 8.2 Background

The Authority's draft recommendation was that concerns about capacity to pay should not influence the design of cost-reflective water resource management and planning charges. Cost reflective charges help to promote the use of water resources in their highest value use and discourage water use for activities where it is not as highly valued.

In the Second Draft Report, the Authority considered the impact of water resource management and planning fees and charges on water users. The Department provided examples of different types of water licence holders, which were used by the Authority to examine the impact of charges on different types of water users.

### 8.3 Submissions

Some submissions on the Authority's issues paper and discussion paper raised concerns about different users' ability to pay for water resource management and planning charges. Harvey Water submitted that despite the fact that the majority of water use is attributed to agriculture, it would be inequitable to charge primary food producers because they are unable to pass on the costs to consumers due to the market structure for agricultural products. According to Harvey Water, most farmers are price takers and do not have the ability to increase prices to take account of extra costs.<sup>106</sup> WAFarmers also indicated that their members had no capacity to pass on water resource management and planning

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<sup>106</sup> Harvey Water submission on the Issues Paper.

charges and, unlike other water users, would bear the full cost of the charges, representing a significant cost to their businesses.<sup>107</sup>

The Manjimup and Pemberton Landowners are concerned that the cost impost on self-supply water users, if not restrained, could exceed the \$1.5 million funding the Shire of Manjimup received through the Royalties for Regions grants program in 2008-09.<sup>108</sup>

The Authority only received a few comments on impacts in submissions on the first Draft Report, as it did not publish any indicative fees or charges at that stage. Many stakeholders wanted to wait for information about proposed fees and charges before commenting on impacts.

There was support for the principle that capacity to pay concerns should not influence the design of charges (Chamber of Minerals and Energy (CME), Water Corporation, Department of Water and Rio Tinto).

WALGA submitted that any increases in charges passed on by local government to developers could reduce developers' motivation for best practice and innovation in water resource management of new developments.<sup>109</sup>

The Landowners noted that the recovery of \$30 million from licence holders could mean licence fees of between \$3,000 and \$12,000 per year for Manjimup licence holders.<sup>110</sup>

CME requested that any impact of charges on the competitiveness of Western Australian industries be considered.<sup>111</sup>

There were a number of comments on impacts and the ability of users to pay in submissions on the Second Draft Report. These are summarised below.

- The Water Corporation estimated that the proposed charges would add between 0.2 per cent and 0.5 per cent to its costs of providing water services, which it considers is unlikely to be a significant issue. However, the Corporation noted that the ability to absorb significant price increases in the future may be limited, as water prices are currently below the cost of service.<sup>112</sup>
- The Department of Food and Agriculture WA (DAFWA) submitted that the Authority has provided no analysis of the impacts on consumers of the various charges, which could affect water prices, council rates, food prices and energy costs.<sup>113</sup>
- Manjimup and Pemberton Landowners strongly objected to the Authority's conclusion that the level of fees is unlikely to result in any farms becoming unviable (unless they were already highly vulnerable). However, Manjimup and Pemberton Landowners did not provide any data or information to support their claims.<sup>114</sup>

<sup>107</sup> Western Australian Farmers Federation submission on the Discussion Paper.

<sup>108</sup> Manjimup and Pemberton Landowners submission on the Issues Paper.

<sup>109</sup> WALGA's submission on the first Draft Report.

<sup>110</sup> Manjimup and Pemberton Landowners' submission on the first Draft Report.

<sup>111</sup> CME's submission on the first Draft Report.

<sup>112</sup> Water Corporation's submission on the Second Draft Report.

<sup>113</sup> DAFWA's submission on the Second Draft Report.

<sup>114</sup> Manjimup and Pemberton Landowners' submission on the Second Draft Report.

- WAFarmers submitted that it was concerned that the Authority would not properly consider capacity to pay issues, given its recommendation that any subsidies are best delivered by a separate mechanism other than fees. WAFarmers however suggested three pieces of evidence (suggesting losses in the dairy, stone fruit and wine industries) for the Authority to consider.<sup>115</sup>
- VegetablesWA and the Potato Growers Association of WA submitted that agricultural producers face significant cost pressures due to rising costs of inputs such as electricity, labour, chemicals and fertilisers, which they cannot pass on to wholesalers or retailers.<sup>116</sup>
- DAFWA submitted that the fees and charges add another layer of production costs on to producers that are already under pressure due to drought, increased utility costs and the strong Australian dollar, and recommends that any analysis of the impacts of charges consider the benefits to the Western Australian community from access to fresh locally produced food.<sup>117</sup>
- DAFWA presented some analysis of the impacts of licence renewal fees, annual water resource management charges and metering costs and fees on users of different size allocations and in different risk categories. The analysis showed that small users would pay a higher per-kL cost for water and the same fee as large users (e.g. a licence holder with an allocation of 75 ML in a high risk area could pay \$48.64 per ML in fees and charges, while a licence holder with 1,800 ML in the same area would pay \$2.03 per ML). The Department recommended that the charging basis be amended to achieve better equity between fees for low and high volume licence holders.<sup>118</sup>
- DAFWA also submitted that while application fees would form a small component (less than 2 per cent of establishment costs for a large scale horticulture enterprise), taken together with the costs of hydrogeological assessment, these could present a barrier to development.<sup>119</sup>
- WACOSS expressed concern that households on fixed and low incomes who are already struggling with rising utility prices may not be able to bear any pass-through of the charges, and recommended a review of the impacts of the charges on water prices.<sup>120</sup>

## 8.4 Authority Assessment

The Authority has considered the impact of water resource management and planning fees and charges on water users. The Department has provided examples of different types of water licence holders, which have been used by the Authority to examine the impact of charges. These were categorised into type of enterprise, source of water, volume of allocation, level of catchment allocation, and typical level of effort involved.

For example, a new licence applicant for a small farm using groundwater in an area that is classified as C3 (high risk, with 70 to 100 per cent of available water resources allocated), seeking an allocation of 72,000 kilolitres per year, would be charged an application fee of \$2,740 if it is a basic application and \$6,200 if it is assessed as a complex application (at

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<sup>115</sup> WAFarmers' submission on the Second Draft Report.

<sup>116</sup> vegetablesWA and the Potato Growers Association of WA's submission on the Second Draft Report.

<sup>117</sup> DAFWA's submission on the Second Draft Report.

<sup>118</sup> Ibid, pp13-15.

<sup>119</sup> Ibid, p5.

<sup>120</sup> WACOSS' submission on the Second Draft Report.

the end of the proposed phasing in period). This and other examples are provided in **Appendix I**.

Some water users would also be subject to water metering charges, if they are in high use and high risk groundwater sub-areas where the Department installs Government-owned water meters as part of its metering program (currently only particular licence holders on the Gnamptara Mound and in the Carnarvon Groundwater Area). Based on the recovery of efficient costs, and following any phasing in of fees and charges, these metered users would pay an upfront fee of \$3,705 for the supply, installation and maintenance of the meter. This could also be paid for through annual instalments over the life of the meter. In addition, the customers would pay an annual charge of \$90 to recover the Department's costs to provide metering data services and \$20 per meter reading (\$40 annually, as meters are currently read twice a year).

The Authority invited submissions from stakeholders on capacity to pay issues to be considered as part of the Authority's examination in this final report. Although submissions from stakeholders on the Second Draft Report included comments on water users ability to pay, there was not a lot of evidence or data about the impact the proposed fees and charges would have on different types of users.

### *Ability to Pay by Agricultural Water Users*

There are no actual income data available to the Authority to assess the affordability of fees and charges for agricultural water users. The agricultural farm income and earnings data that are available from the Australian Bureau of Statistics are not appropriate to use as examples to consider the impact that the proposed fees and charges will have on the viability of agricultural businesses.

WAFarmers suggested that the Authority should consider three pieces of evidence (suggesting losses in the dairy, stone fruit and wine industries) when examining the capacity to pay by agricultural water users.

- A statement issued by a group of wine industry participants was provided by WAFarmers, which indicated that at least 20 per cent of bearing vines in Australia is surplus to requirements, with few long-term prospects. On cost of production alone, at least 17 per cent of vineyard capacity is uneconomic. These problems are national, although some regions are more adversely affected than others, and they are not restricted to specific varieties or price points.<sup>121</sup>
- WAFarmers also forwarded a media release from March 2010 in relation to the financial difficulties faced by Australia's dairy farmers,<sup>122</sup> which refers to an Australian Bureau of Agriculture and Resource Economics (ABARE) report on Australian commodities.<sup>123</sup> This ABARE report showed that the average Australian dairy farm was expected to make a forecast farm business loss of \$44,000 in 2009-10. However, the report also showed average Australian dairy farm business profits to be \$65,000 in 2007-08 and \$6,700 in 2008-09.
- An ABARE report from June 2010 showed that based on a sample of 31 dairy farms surveyed, the average Western Australian dairy farm was actually expected

<sup>121</sup> Winemakers' Federation of Australia, Wine Grape Growers' Australia, the Australian Wine and Brandy Corporation and the Grape and Wine Research and Development Corporation, November 2009, *Wine industry must confront the reality of oversupply: A statement to the wine industry*.

<sup>122</sup> Senator the Hon Richard Colbeck, Shadow Parliamentary Secretary for Agriculture, Fisheries and Forestry Media Release, 3 March 2010, *Dairy farmer profits milked dry*.

<sup>123</sup> ABARE, March quarter 2010, *Australian Commodities*, Vol. 17 (No. 1).

to make a forecast farm business profit of \$129,600 in 2009-10, compared to an average profit of \$203,710 in 2008-09.<sup>124</sup>

In regard to profits made by vegetable growers, ABARE conducted an economic survey of Australian vegetable growing farms in 2008-09. Table 8.1 shows the average farm business profits of vegetable farms in Western Australia, based on a sample of 35 vegetable growers in Western Australia.

**Table 8.1 Average Farm Business Profit of Western Australian Vegetable Farms**

	2005-06 (\$)	2006-07 (\$)	2007-08 (\$)	2008-09 (\$)
Farm business profit	157,032	105,155	126,488	194,549

Source: ABARE, November 2010, *Australian vegetable growing farms: an economic survey, 2008-09*, p17.

As outlined earlier in this report, vegetablesWA and the Potato Growers Association of WA submitted that increasing input costs over the past three years have had a significant effect on the viability of vegetable growers in Western Australia.

The Authority acknowledges that water users in some agricultural industries, such as the wine industry and vegetable growers, may be experiencing financial difficulties at the moment. However, given the scale of the revised proposed licence fees and the removal of annual water resource management and planning charges, the Authority's view is that if such a small cost does cause financial problems for a user, then it is likely that the user would be vulnerable even if these charges were not imposed.

### Security of Supply

The impact that the proposed water resource management and planning charges may have on the security of supply of fresh vegetables in Western Australia has been raised in submissions and at the round table discussions held on 26 November 2010. For example, vegetablesWA and Potato Growers Association of WA submitted that the proposed fees and charges will continue to increase the input costs of vegetable growers, which will result in many vegetable growers becoming unviable in five to ten years. This will create fresh and safe vegetable food insecurity in Western Australia.<sup>125</sup>

The Authority's view is that the security of local and fresh supply of vegetables in Western Australia is a policy matter for the Government that should not influence the design of water resource management and planning charges.

### Impacts on Water Service Providers

The proposed charges will also have an impact on the water service providers, in particular the Water Corporation. It is expected that the additional costs for the Water Corporation to pay water resource management and planning charges will be recovered from its customers.

The indicative charges that would apply to the Water Corporation to recover the Department's efficient costs incurred to provide licensing services for the IWSS and the efficient costs associated with water source protection were estimated at approximately \$1.9 million in 2008-09. This includes fees and charges for water source protection of

<sup>124</sup> ABARE, June 2010, *Australian dairy: Financial performance of Australian dairy farms, 2007-07 to 2009-10*, p5.

<sup>125</sup> vegetablesWA and the Potato Growers Association of WA's submission on the Second Draft Report, p3.

\$1,578,064, management of Priority 1 land of \$55,865, and IWSS licensing of \$272,430, but excludes licensing charges outside of the IWSS.

In 2008-09, the Department also purchased two properties in highly vulnerable groundwater source areas operated by the Water Corporation. The cost of these properties, which would have been recovered from the Water Corporation, was just over \$2.7 million.

The indicative fees and charges of \$4.6 million (\$1.9 million for water source protection and IWSS licensing and \$2.7 million for land purchases) that would have applied to the Water Corporation only represent around 0.2 per cent of the Water Corporation's total revenue in 2009-10, which was approximately \$1.9 billion.<sup>126</sup>

Outside the IWSS, the Water Corporation would be charged licence application fees on the same basis as other licence holders. The total cost to the Corporation has not been estimated by the Authority, as it would depend on the number of applications for new licences or licence renewals, the proportion of licence applications that are basic versus complex, as well as the number of applications for permits (e.g. to construct or alter wells). A proportion of these licensing costs would be passed on to the Corporation's water customers outside the IWSS, although not all, as water prices to country customers are subsidised and do not fully reflect the costs of supply.

- For licence applications, the additional per-kL cost is likely to be small, as the Corporation's licences tend to be for large volume allocations. For example, an application for a 350 M L allocation incurring a licence application fee of \$5,290 (assuming it is a high risk, complex application) would work out at a cost of 1.5 cents per kL.

Aqwest's total revenue in 2009-10 was around \$9.5 million<sup>127</sup> and the indicative charges for water source protection services that would have applied to Aqwest in 2008-09 were \$27,031, which is around 0.3 per cent of Aqwest's revenue.

The indicative water source protection charges that Busselton Water would have paid in 2008-09 were \$9,461, compared to its total revenue of \$7.2 million earned in 2009-10<sup>128</sup> (the indicative charges only represent around 0.1 per cent of revenue).

The upfront licensing fees that would apply to Aqwest and Busselton Water are not included as there are no estimates available to the Authority.

### *Impacts on Local Governments*

Local governments currently pay separate water licensing fees for public open spaces, although it is understood that the Department is considering whether or not a single fee for water licensing could be paid by each local government instead. The water licensing fees that a local government would have to pay under the proposed fees and charges would therefore vary depending on the number of licences held.

**Appendix I** provides examples of the fees and charges that would be applicable to a local government for different public open spaces. A local government who is taking, or seeking to take, groundwater for a small public open space used for recreation that is assessed as low risk by the Department, would be charged:

<sup>126</sup> Water Corporation's 2009-10 Annual Report.

<sup>127</sup> Aqwest's 2009-10 Annual Report.

<sup>128</sup> Busselton Water's 2009-10 Annual Report.

- \$1,670 for a new basic licence application; or
- \$4,850 for a new complex licence application; or
- \$825 for a licence renewal application.

Where a local government is taking, or seeking to take, groundwater for a large public open space used for recreation, assessed by the Department as a medium risk, the proposed fees and charges would be:

- \$2,740 for a new basic licence application; or
- \$6,200 for a new complex licence application; or
- \$1,055 for a licence renewal application.

Local governments have the option to pass all or some of their water licensing costs onto their rate payers.



## 9 Implementation of Fees and Charges, Regulatory Arrangements and Service Standards

In this section, the Authority considers how the proposed water resource management and planning fees and charges outlined in this report would best be implemented, taking into account the Department's legislative requirements and feedback provided by stakeholders.

The Authority has also considered the issue of what regulatory arrangements should be considered to assist the Department achieve high service standards and efficiency in operations and govern the setting of charges.

The regulatory arrangements that govern the water resource manager are important because they influence the efficiency of the water resource manager and can provide confidence that there is alignment between the service standards that users are willing to pay for and the service standards that are achieved.

Currently in Western Australia, the Department carries out water resource management and planning activities on behalf of the Minister for Water. Service standards for the Department are developed by the Department and reviewed and approved by the Government's Outcome Structure Review Group.

### 9.1 Implementation of Water Resource Management and Planning Fees and Charges

In regard to the Department's legislative powers to implement water resource management and planning charges, the Authority's view in the first Draft Report was that the Government should ensure that State legislation provides for the appropriate recovery of water resource management and planning costs. As it is the Authority's role to make independent recommendations to the Government, and up to the Government to implement those recommendations should it choose to, the Authority has not sought legal advice regarding the provision under legislation to recover different types of costs.

As noted in Section 1.2.1, the National Water Commission has cited the lack of progress in Western Australia towards cost recovery in water resource management and planning as a failure by the State to meet its obligations under the National Water Initiative (NWI). The Authority's view is that the recommended fees and charges to recover the efficient costs of the Department's water resource management and planning activities that are outlined in this Final Report represent a key step towards meeting the State's obligations under the NWI.

#### 9.1.1 *National Water Initiative*

In response to the first Draft Report, several stakeholders submitted that fees and charges should not be introduced in isolation from the implementation of the State's other commitments in relation to the NWI, such as the legislative reform (WAFarmers).

WALGA recommended that the Authority wait for the outcome of the National Water Commission's inter-jurisdictional working group on the pricing principles for water

resource management and planning charges to ensure that any cost allocation does not conflict with these principles.

Rio Tinto did not agree with the Authority that the costs of increases in service standards should be borne by licence holders, arguing that under the NWI risk assignment framework the cost of policy change is incurred by government rather than by users.

CME submitted that future obligations, such as the development of statutory water management plans under the NWI, have not been addressed.

Harvey Water requested clarification of how charges would reflect the costs of issuing licences in perpetuity, as proposed for the new water legislation.

### **9.1.2 Phasing In of Fees and Charges**

The Authority's view in the Second Draft Report was that a conservative approach to cost recovery should be adopted since this is the first time that the Department has been required to collect and analyse information about its activities and costs. The full costs of the Department's activities should not be recovered at this stage, for the following reasons:

- Many of PricewaterhouseCoopers findings in relation to the effectiveness and efficiency of the Department's activity costs were inconclusive. As a result, more information over a longer period of time is required to provide greater certainty about the Department's costs and levels of effort in undertaking activities.
- The proposed charges are indicative only as they are based on 2008-09 costs – the actual costs of activities over the next three years are likely to be different and it is important to ensure that any charges do not exceed efficient costs.
- The Department's costs are based on the Department's full FTE allocation, not actual FTEs, which could be overstating the actual costs that are incurred since the Department has varying vacancy rates across its activities.
- The Department is still implementing reforms in the water industry as required under the NWI. Until these reforms have been implemented and it is known what impacts these will have on the Department's activities and costs, the full costs should not be recovered.

The Authority therefore recommended in the Second Draft Report that the proposed fees and charges be phased in over a three year period, and that the Department's activities and costs be subject to another review which would establish the fees and charges that should be implemented after this three year period.

### **9.1.3 Administrative Costs to Implement Fees and Charges**

As mentioned in Section 3.5.2, the Department's cost estimates do not include costs to implement and administer the proposed water resource management and planning fees and charges. Consequently, the Authority's recommended fees and charges do not include the recovery of any costs that might be incurred by the Department to implement and administer billing systems.

In some cases, the Department has indicated that the administrative costs of setting up and maintaining billing systems may be greater than the actual costs of providing the services. If the Department provides evidence that this is the case for some of its services, then cost recovery should not be implemented for those services. This is

consistent with the Authority's draft principle that water licensing and the recovery of costs should be implemented in such a way that benefits exceed costs.

If fees and charges for water resource management and planning services are implemented and another review of the Department's activities and costs is undertaken as recommended, any efficient costs that are incurred by the Department that are associated with billing customers would need to be considered for inclusion at that time.

### 9.1.4 Submissions on Second Draft Report

The Department notes in its submission on the Second Draft Report that under its current legislation, it is able to recover costs for:

- processing and assessment of licences and permits;
- licensing of the Water Corporation for the IWSS; and
- water metering; and
- public drinking water source protection, via Memorandums of Understanding (MOUs) with water service providers.

The Department therefore proposes recovery in the short term of the costs of the above activities.

However, the Department submitted that it cannot currently levy charges for:

- water licensing policy and enforcement, or water allocation planning and management (which would require the Department to establish a Water Resources Council and statutory water allocation plans);
- sub-division applications (unless by agreement with WAPC); and
- development applications and local planning proposals (unless by agreement with local governments).

The Department therefore recommended cost recovery at a later stage (subject to additional powers) of costs associated with water allocation planning and management; subdivision applications; development proposals from local government; and floodplain management.

Similarly, DAFWA recommended that a staged approach be adopted to implementing fees and charges, with some fees such as licensing and renewal fees introduced first, and working towards water resource management and planning charges at a later stage, to allow more time to collect data and clarify public benefit ratios, as well as monitoring unintended consequences of the charges.

The CME supported a conservative approach to cost recovery and a phased introduction of fees.

### 9.1.5 Authority's Assessment

The Authority proposes that the following four services are suitable for immediate cost recovery, and that the fees and charges to recover these costs should be phased in over a three-year period (as outlined in **Appendix H**):

- processing and assessment of applications for water licences and permits;
- licensing of the Water Corporation for the IWSS;
- water metering; and
- protecting public drinking water sources.

As discussed in Section 4.3.5, the Authority recommends that annual charges to recover the ongoing costs of water allocation planning and management be deferred until after the new water resource legislation is in place. This will provide time for the Department to collect information and develop data management systems that would support the implementation of annual charges for each water allocation plan area. The annual charges would recover the costs incurred by the Department for licence holders in each area from those licence holders, in proportion to the management effort by the Department for each type of licence holder.

In the Draft Reports, the Authority considered that there was a case for recovering costs for a number of other services, which are provided by the Department to identifiable private parties (including land developers, local councils, private businesses or individuals):

- the assessment of statutory referrals from other agencies, including those relating to sub-division and development applications, clearing of sub-division conditions and planning proposals;
- advice on arterial drainage studies, carried out as part of urban water and drainage management;
- providing advice on floodplain management; and
- providing water information.

The Authority does not consider cost recovery for these activities to be feasible at this stage, for a number of reasons.

- Under the current legislation, the Department would require agreement with other government agencies (e.g. Western Australian Planning Commission or local councils) to levy charges for these services. These agencies are opposed to cost recovery for these activities.
- The cost and complexity of the Department's work in these activities is highly variable depending on the project, and there is insufficient information to determine unit costs for the services provided. Due to the variation in costs between projects, charging on an average cost basis would result in inequity for proponents requiring simple assessments.
- The costs to be recovered are relatively small, and the administrative costs of establishing and maintaining a charging scheme to recover costs, often from a wide range of different proponents, are likely to outweigh any benefits.
- The projects may also vary in their mix of public and private benefit (e.g. some projects cover a wider area, and/or benefit parties who cannot be identified).

The Authority therefore recommends that cost recovery for these activities be reviewed following the introduction of new water resources legislation. In the meantime, the Department should continue to collect information on the costs of these activities.

## Implementation of Fees and Charges

- 35) Fees and charges for processing and assessment of applications for water licences and permits, licensing of the Water Corporation for the IWSS, water metering and protecting public drinking water sources be phased in over three years.

## 9.2 Regulatory Arrangements and Delivery of Service Standards

This section considers the Department's existing service standards and key performance indicators and how they can be improved. The appropriate regulatory arrangements that should be adopted to oversee the performance of the Department in delivering water resource management and planning services that are proposed to be paid for by the users are also considered.

### 9.2.1 Service Standards and Performance Indicators

The Department's key objectives in relation to water resource management and planning are set out in a number of Acts as specified in the Authority's Issues Paper, including the *Rights in Water and Irrigation Act 1914*, *Water Agencies (Powers) Act 1984*, *Metropolitan Water Supply, Sewerage, and Drainage Act 1909* and the *Water Services Licensing Act 1985* (see **Appendix D**).

The Department is responsible for ensuring that the State's water resources are planned, managed and developed to meet the community's requirements now and into the future.<sup>129</sup> This report has identified the water resource management and planning services, and the costs of these services, that should be recovered from users now or in the future:

- processing and assessment of applications for water licences and permits;
- providing water allocations and managing the ongoing use of water;
- licensing of the Water Corporation for the IWSS;
- water metering (only applicable to meters installed as part of the Department's metering program);
- protecting public drinking water sources;
- providing advice on statutory referrals;
- guiding urban drainage and water management;
- providing floodplain management advice; and
- providing water information.

It is difficult to establish appropriate and relevant service standards that should apply to the Department's services listed above. The Authority believes that the existing key performance indicators for the services that have been identified for cost recovery, which

<sup>129</sup> Department of Water, 2009, *Annual Report 2008-2009*, p6.

the Department reports against as part of the annual State Budget process and in its Annual Report, are not very useful to measure the Department's efficiency. The lack of relevant measures is largely due to the limited information available since the Department does not generally collect information about the time spent or level of effort required to undertake different tasks, such as the level of effort required to assess a licence application.

It is also difficult to benchmark the Department's performance against other water resource managers in Australia since there are no common service standards across the jurisdictions. This is partly due to the different water resource management activities being undertaken in other jurisdictions, as well as the different frameworks that are in place.

### *Experience in New South Wales*

In New South Wales, the Independent Pricing and Regulatory Tribunal (IPART) did not have a system of performance measurements for the New South Wales Office of Water (NOW), but in its recent price review has sought to establish a regulatory mechanism to set service standards and link performance to prices.

In its issues paper, IPART noted the difficulty in setting performance measurements for water resource management activities. Comparisons between water resource managers between States can be uninformative, due to the differences in management techniques, water resources and impacts of water use between jurisdictions. However, liaison with other regulators will be useful in developing a set of performance indicators that could be generally applied to water resource management and planning, and that could in future be compared across agencies.

In the Final Report on its Review of Prices for the Water Administration Ministerial Corporation (for the NSW Office of Water), IPART's decisions were to:

- establish an annual reporting framework whereby NOW provides IPART with a report that is suitable for public release and includes the information specified in a table in IPART's Final Report (see Table 19.1 in Appendix J) by the last working day of October each year of the 2011 Determination period;
- establish an end-of-determination period reporting framework whereby NOW provides IPART with a report suitable for public release of its delivery of the Schedule of Monopoly Service Order Outputs to 2014 together with its submission to the 2014 price review, specified in a table in IPART's Final Report (outlined in Table 19.2 in Appendix J); and
- provide NOW with an Annual Information Return Excel spreadsheet that has been developed by IPART, for NOW to complete and return to IPART by the last working day of October each year of the 2011 determination period.<sup>130</sup>

In addition, IPART considers that NOW should:<sup>131</sup>

- undertake options analysis for its activities, including testing contestability of the services provided;

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<sup>130</sup> Independent Pricing and Regulatory Tribunal, February 2011, *Review of Prices for the Water Administration Ministerial Corporation for the NSW Office of Water from 1 July 2011 – Final Report*, p217.

<sup>131</sup> Ibid, pp218-219.

- deliver the forecast water resource activities that justified IPART's allowance of costs and provide progress reports consistent with the reporting framework outlined above;
- implement strategies to address IPART's recommendations to the Minister for Water raised in correspondence in October 2010;
- consider and publish a policy on levying water management charges on stock and domestic and other basic rights holders;
- undertake cost-benefit analysis of its goal of metering 95 per cent of licensed extraction and subsequently share that cost benefit analysis with users and IPART; and
- develop and publish specific criteria to determine how it will make decisions about which type of meter is installed and its location that have due regard to the future level of efficient operating costs of this program.

IPART also made recommendations to the Minister for Water that in order to create stronger incentives for NOW to comply with IPART's reporting framework and address the identified deficiencies in its systems and performance, NOW should be required to:<sup>132</sup>

- improve its consultation with users about performance, expenditures and revenue;
- improve its billing systems and administration;
- improve its financial systems, including the ring-fencing of expenditures related to the monopoly services; and
- provide timely, accurate and complete annual reports to IPART as part of the reporting framework.

### *Benchmarking Undertaken by the PwC*

PwC performed limited benchmarking of some of the Department's activities at a point in time against similar activities performed by the NOW as part of its effectiveness and efficiency review of the Department. It performed benchmarking analysis for the following activities, although it noted that care needs to be taken in interpreting the results:<sup>133</sup>

- **water allocation planning** – PwC found that despite a large variation in aggregate expenditure for water allocation planning activities by each department, the cost per FTE is approximately equivalent, with the Department having a slightly higher cost per FTE when external funding is included;
- **environmental water planning** – the Department spends a lot more on environmental water planning than the NOW and it also has more staff undertaking this activity. The Department has a more expensive operation than NOW when costs are expressed on a per-FTE basis and on the basis of dollars per water licence on issue.
  - While the cost differences may be evidence that the Department is less efficient, PwC believes that it is difficult to conclude with certainty that this is the case;

<sup>132</sup> Ibid, p219.

<sup>133</sup> The benchmarks considered are comparisons of unit input costs, not cost per unit of outcome delivered. As such no allowance is made for differences in the standard of outcomes delivered. Another limitation is the possibility that both agencies are performing equally poorly.

- **water metering** – the Department’s operating and maintenance costs appear to be well within the range of costs budgeted by NOW and the capital costs of the Department’s metering program do not seem inefficient;
- **water information collection and management** – on the basis of cost per gauging station, the two departments have reasonably similar costs (approximately \$3,000 per station). However, this benchmarking is not that useful, as a nearly half of the Department’s costs are capital related, whereas most of the NOW’s costs are operating expenditure;
- **water licence transaction processing, licensing administration and compliance** – three measures were used, with contrasting indications of the Department’s level of efficiency. The Department has a lower cost per FTE for this activity, but its cost per licence is higher than for the NOW. Cost per transaction shows that the Department’s average cost of processing a transaction is about \$1,000 more than that reported by the NOW. However, this could be the result of a number of differences between water resources and processes in Western Australia and New South Wales;<sup>134</sup> and
- **corporate support activities** (a component of overheads) – the Department’s corporate overhead costs appear to be efficient when compared to the same costs for the NOW.

### *Development of Key Performance Indicators*

PwC assessed the Department’s existing performance indicators as part of its review of how effective and efficient the Department is in delivering water resource management and planning services. It found that the Department could improve the selection of performance indicators that it uses, the manner in which many of the indicators are used, their level of resolution and the targets against which they are measured. In addition, most of the Department’s performance indicators relate to inputs or midway outputs, with only a few indicators relating to the quality of the service it provides. PwC identified a range of recommended performance indicators for the activities that were subject to detailed review by PwC. The additional KPIs that have been suggested by PwC are included in Table 9.1.

Consequently, more detailed measures need to be developed over time, preferably in conjunction with other jurisdictions to promote benchmarking. The Authority therefore suggests that the following KPIs could be considered for implementation to measure the Department’s performance in delivering services where all or some of the costs are recovered from users now or sometime in the future.

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<sup>134</sup> For example, in New South Wales licences are required for stock and domestic water use, and these involve minimal processing costs, therefore reducing the average processing cost across all NSW licences. However, these activities are not licensed in Western Australia.



**Table 9.1 Proposed Key Indicators**

Note: Proposed Department of Water performance measures (highlighted)

*Additional performance indicators recommended by PwC (in italics)*

### Key Indicators

#### **Performance Measures**

Average cost of all water licences, reduced by x percent each year<sup>135</sup>

Average processing time for a new licence, by catchment category and volume

Average cost per new water licence, by catchment category and volume

Average processing time for a water licence renewal, by catchment category and volume

Average cost per water licence renewal, by catchment category and volume

Average time taken to assess hydrological and hydrogeological studies, by catchment category and volume

Average time taken to assess operating strategies, by catchment category and volume

Percentage of compliance monitoring inspections carried out, by volume, and compared against the standard

*Percentage of licences subject to compliance audits per year*

*Percentage of licences audited that are compliant with licence requirements*

*Percentage of water allocation metered (by region)*

*Proportion of water sources covered by a current water source protection plan*

Average cost of preparing a water source protection plan

*Average time taken per water source protection plan*

Average cost of installing water meters that meet the national standards

*Proportion of meters accurate to the relevant standard*

*Average maintenance cost per meter*

*Average cost per meter reading*

*Proportion of meters read target [x] times per year*

*Average cost per statutory referrals processed (by type)*

*Average time for processing of statutory referral (by type)*

*Average cost per bore drilled*

*Average cost per metre drilled*

*Proportion of groundwater investigations completed within budget*

*Proportion of gauging stations monitored [x] times per year (targets by region, adjusted for technology)*

*Proportion of gauging stations visited for maintenance each year*

*Average cost of operating and maintaining gauging stations each year*

*Average time for calculation of trace/ratings*

*Continued...*

<sup>135</sup> The Office of the Gas and Electricity Markets (Ofgem) in the United Kingdom recovers its costs from the licensed companies it regulates. Licensees are obliged to pay an annual licence fee which is set to cover its costs. Ofgem operates under a five-year cost control regime, which pegs its expenditure growth at 3 percentage points below the retail price index. ([www.ofgem.gov.uk](http://www.ofgem.gov.uk))

## Key Indicators

*Average number of readings per bore per year (targets by region, adjusted for technology)*

*Average processing time for bore readings per bore per year*

*Proportion of bore sites visited for maintenance each year*

*Average cost of operating and maintaining groundwater monitoring installations each year*

*Proportion of water allocation plans in place and at required standard*

*Average cost per water allocation plan (by planning category)*

*Overhead cost per licence holder*

## Informative Indicators

*Number of water licences in force*

*Number of new licence applications processed, by catchment category and volume*

*Number of water licence renewals processed, by catchment category and volume*

*Licence application backlog*

*Number of appeals against licensing decisions*

*Number of appeals resolved to the satisfaction of the Department of Water*

*Number of hydrological and hydrogeological studies assessed, by catchment category and volume*

*Number of operating strategies assessed, by catchment category and volume*

*Number of FTEs in each area*

*Number of allocation plans prepared and published, compared against target*

*Number of water source protection plans prepared, compared against target*

*Number of meters installed per year*

*Number of meter readings per year*

*Ongoing costs of water metering, such as meter reading and maintenance, per water meter*

*Number of statutory subdivision referrals received from the Western Australian Planning Commission*

*Number of statutory subdivision referrals assessed and responded to within agreed timeframe (currently 28 days)*

*Number of bores drilled per year*

*Number of metres drilled per year*

In its submission on the Authority's first Draft Report, the Department agreed with the need to develop performance indicators to accompany any charges that are introduced. The Department recognised that it is important for performance indicators to allow analysis of how well the State's water resources are managed<sup>136</sup> in addition to those measuring how efficient the Department is. The Department submitted that the absence of such indicators can create the incentive to improve efficiency indicators by reducing the effectiveness of (the unmeasured) water resource outcomes.

<sup>136</sup> Such effectiveness indicators have already been introduced for allocation planning.

A number of possible KPIs were suggested by the Department for consideration:<sup>137</sup>

- Proportion of water resource management units (i.e. an aquifer layer for the relevant sub area) with a current water allocation plan appropriate to the level of use:
  - Proportion of water resource management units allocated to more than 70% of their sustainable limit with a current R3 water reform or statutory water allocation plan.
  - Proportion of water resource management units allocated to between 30% and 70% of their sustainable limit with a current R2 water allocation plan.
  - Proportion of water resource management units allocated at below 30% of their sustainable limit with an enacted recovery strategy.
  - Proportion of water resource management units allocated at above 100% of their sustainable limit with a current allocation limit.
- Number of water resource management units that are over-allocated as a proportion of total number of water resource management units.
- Percentage of licence compliance monitoring inspections carried out against the standard.

The Department indicated a preference to develop in-depth KPIs after the Government has responded to the Authority's final recommendations, which should determine the future direction of cost recovery for water resource management and planning costs incurred by the Department.

## 9.2.2 Regulatory Oversight

There was general support in submissions on the Issues Paper and Discussion Paper for an independent regulator (such as the Authority) to be involved in the oversight of water resource management and planning services.

Some submissions supported the independent setting of charges, and the associated service standards, by the Authority. This is the model used in New South Wales, where IPART determines the charges of the New South Wales Office of Water (NOW). IPART sets the prices that NOW can charge, by:

- establishing the future revenue to be recovered (which is the amount needed to cover operating and maintenance expenses, administration expenses, a return on capital, and depreciation). Efficient costs are assessed by examining cost drivers, planning processes, cost allocation methods, cost benchmarking with comparative organisations, and water management outcomes; and
- determining the costs to be recovered from licence holders or the public for each water management activity (based on who is causing the costs to be incurred).

Support for this model was provided in the submissions from the Department, the Department of Agriculture and Food WA and Rio Tinto.

The Department submitted that this approach would help to minimise any conflict of interest related to the Department advising on its own charges or the setting of charges to support the Budget process.<sup>138</sup> Similarly, Rio Tinto submitted that it would be inappropriate

<sup>137</sup> Department of Water's submission on the first Draft Report, p6.

<sup>138</sup> Department of Water's submission on the Issues Paper, p95.

to give the Department the power to set fees that would determine the level of resources available to the same organisation without some independent scrutiny or regular review.<sup>139</sup>

In submissions received from the Water Corporation and the Department of Treasury and Finance (DTF), there is support for periodic reviews by the Authority through its inquiry function. This is similar to the model used by the Authority to recommend tariffs for the Water Corporation, Aqwest and Busselton Water, where the Minister retains the responsibility for setting the tariffs.

The Water Corporation submitted that the Authority is best placed to provide the regulatory oversight to ensure deliverable and efficient service standards, as part of a periodic review of the charges (e.g. every three years).<sup>140</sup> DTF submitted that periodic reviews of the charging regime of the Department would ensure that the services being delivered, the costs incurred and the charges levied on its licence holders (as customers of its services) are appropriate and efficient.<sup>141</sup>

DTF also submitted that it is important that the licence holders who pay the charges have an appropriate level of involvement in the ongoing process of management and planning to help ensure the efficiency of services and charging. For example, the Western Australian Department of Fisheries sets its levels of service and cost recovery through extensive stakeholder consultation and agreement. DTF recommended that the Authority should investigate such a model for possible application to the water industry and examine resource management, financing and governance within the fisheries industry (and other relevant industries).<sup>142</sup>

In the first Draft Report, the Authority considered that there could be benefits if a water industry committee<sup>143</sup> was established to represent water licence holders, which could work with the Department to make sure that licence holders are able to have an effect on the services delivered and the standards that they require from the Department and for which they may be paying. Such an industry committee could represent all of the key stakeholders (such as service providers, irrigators, horticulturalist, and mining companies) as well as the different regions. Alternatively, the Department could work closely with the key stakeholder and industry groups that already exist.

An example of where such a relationship has been useful was the recent reduction in the access fee for the West Coast Rock Lobster Managed Fishery, where the industry pays the full cost of management, compliance and research services provided by the Department of Fisheries. The 2009-10 access fee was reduced to \$112 per unit, down from \$147 per unit in 2008-09. This was the result of discussions between the Department and the Western Rock Lobster Council, to determine which of the activities could be cut back or done differently to decrease costs, which reduced the cost recovery component of the access fee from \$125 to \$106 per unit. This was achieved mainly through reductions in the compliance budget. In particular:

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139 Rio Tinto's submission on the Issues Paper.

140 Water Corporation's submission on the Issues Paper.

141 Department of Treasury and Finance's submission on the Issues Paper.

142 Ibid.

143 A water industry committee could be established that is similar to the Urban Development Advisory Committee, which provides advice to the Water Corporation's Board on land development issues. It could be chaired by a senior officer in the Department of Water and the Department could also perform the secretariat functions of the committee.

- a patrol boat was removed from West Coast Rock Lobster Managed Fishery operations; and
- there were significant reductions in hours allocated to rock lobster work by land-based Fisheries and Marine Officers.<sup>144</sup>

The Authority's preferred approach to regulation of water resource management and planning charges in the first Draft Report was one where the Authority has an ongoing role to undertake reviews of the Department's operating and capital expenditure and determine any charges (every three years), with an industry committee to work with the Department to ensure that service standards and performance measures are appropriate and achieved.

The Authority was of the view that if it is to have an ongoing oversight role of the Department's water resource management and planning charges, charges should be independently determined by the Authority. The Authority's view was that capacity-to-pay issues should not influence the design of a cost-reflective charging regime, and any issues regarding capacity to pay be addressed through separate explicit mechanisms, if this is a Government priority. Independently determined charges would reduce any potential conflicts of interest in the Department and is also likely to be a more transparent process.

However, the independent setting of charges would require legislative change, so prior to this change the Authority could provide regulatory oversight of the resource manager by way of periodic reviews through its Inquiry function.

### *Submissions on Draft Recommendations*

In their submissions on the first Draft Report, the Department and the Water Corporation supported the involvement of stakeholders in setting and monitoring of performance, and the independent periodic review of prices.<sup>145</sup>

The Chamber for Minerals and Energy (CME) stressed the importance of independent scrutiny of water charges and the control of cost increases over time in its submission, and supported the setting and reviewing of charges every three years by the Authority.<sup>146</sup> The Turf Growers Association WA recommended capping charges to prevent uncontrolled price increases.<sup>147</sup>

The Water Corporation supported further investigation to refine estimated costs of services, and periodic reviews to ensure that efficiency incentives are incorporated. The Corporation also submitted that charges should ideally be based on average costs over a number of years, rather than from a single year.<sup>148</sup>

DAFWA strongly supported the development of service standards for the Department through a water industry committee, and continued monitoring of the Department by an organisation such as the Authority.<sup>149</sup>

<sup>144</sup> Department of Fisheries, 2009, *West Coast Rock Lobster Newsletter – September 2009*.

<sup>145</sup> Department of Water's submission on the first Draft Report and the Water Corporation's submission on the first Draft Report.

<sup>146</sup> CME's submission on the first Draft Report.

<sup>147</sup> Turf Grower's Association WA's submission on the first Draft Report.

<sup>148</sup> Water Corporation's submission on the Second Draft Report.

<sup>149</sup> DAFWA's submission on the Second Draft Report.

Rio Tinto supported the periodic review of fees and charges to ensure cost efficiency and ongoing efficiency improvements and submitted that the Authority could fulfil this role. Such reviews should also consider the levels of service provided.<sup>150</sup>

The CME also recommended ongoing monitoring and scrutiny of the Department through periodic independent reviews.<sup>151</sup>

### **9.2.3 Authority's Assessment**

The Authority concludes that there would be benefits to establishing a water industry committee to represent water licence holders, and to work with the Department to ensure that licence holders are able to have an effect on the services delivered and the standards that they require from the Department and for which they may be paying.

Such a proposed industry committee should also explore whether some of the water resource management and planning services that are currently being provided by the Department could be provided more efficiently through other alternatives. This is an issue that was discussed at the Authority's round table that was held in late November 2010, where stakeholders raised the possibility that there are alternative methods of service provision that may be more efficient than the current method of service delivery.

When statutory water allocation plans are developed, the implementation of any annual charges to recover the ongoing costs of water allocation management would need to be accompanied by consultation with licence holders on the level of management in their plan area, the service standards being delivered by the Department, the management costs, and the sharing of those costs between licence holders. Such consultative arrangements could feed in to the work of a water industry committee in developing broader service standards and performance indicators for the Department.

The Authority's preferred approach to regulation of water resource management and planning charges remains one where the Authority has an ongoing role to undertake reviews of the Department's operating and capital expenditure and determine any charges (every three years), with an industry committee to work with the Department to ensure that service standards and performance measures are appropriate and achieved. An additional review would be required if the new water resource management legislation was enacted in less than three years' time.

As the independent setting of charges requires legislative change, the Authority could provide regulatory oversight of the resource manager by way of periodic reviews through its Inquiry function prior to this change.

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<sup>150</sup> Rio Tinto's submission on the Second Draft Report.

<sup>151</sup> CME's submission on the Second Draft Report.

## Regulatory Arrangements and Delivery of Service Standards

- 36) A water industry committee be established to represent licence holders and work with the Department to develop service standards and performance indicators for relevant water resource management and planning activities.
- 37) Water resource management and planning charges be independently set and reviewed when the new water resource management legislation is in place or in three years' time, whichever occurs sooner, and then every three years by the Authority.
  - The Department to record the actual annual costs incurred in providing the services that have been identified as suitable for immediate and future cost recovery in this report, to allow the Authority to review the historical costs incurred by the Department.





# APPENDICES

## 10 Appendix A. Terms of Reference

### INQUIRY INTO WATER RESOURCE MANAGEMENT AND PLANNING CHARGES

#### TERMS OF REFERENCE

I, TROY BUSWELL, Treasurer, pursuant to section 32(1) of the *Economic Regulation Authority Act 2003*, request that the Economic Regulation Authority (ERA) undertake an inquiry and provide the Government with a range of options and recommendations for:

- the recovery of the planning and management expenses incurred by the Department of Water for the sustainable management of the State's water resources; and
- the most appropriate regulatory arrangements for the setting of service standards for the resource manager, the setting of the charges and the subsequent recovery of those charges from water users.

The options are to include:

- the implementation impacts for various types of users, including a sensitivity analysis on capacity to pay assumptions; and
- opportunities for implementation under both the existing legislative responsibilities of the Department of Water as well as those specified by the National Water Initiative.

In doing so, the Authority is requested to consider and develop findings on:

- the tasks or activities undertaken in the efficient management of the State's water resources, by the Department of Water, that would appropriately be recovered from water users;
- the most appropriate level (or percentage) of cost recovery from water users; and
- the most appropriate allocation of costs between licence holders and other water users (licensed entitlement or actual use).

In developing its recommendations, the Authority will have regard to:

- the Government's social, economic and environmental policy objectives;
- the Government's obligations as a signatory to the National Water Initiative Intergovernmental Agreement; and
- any relevant pricing principles arising from the 1994 Council of Australian Governments water reform agreement and the National Water Initiative.

The Authority will release an issues paper as soon as possible after receiving the reference. The paper is to facilitate public consultation on the basis of invitations for written submissions from industry, government and all other stakeholder groups, including the general community.

A draft report is to be available for further public consultation on the basis of invitations for written submissions.

The ERA will complete a final report no later than nine months after receiving the Terms of Reference.

**TROY BUSWELL MLA  
TREASURER, MINISTER FOR COMMERCE;  
SCIENCE AND INNOVATION; HOUSING AND WORKS**

The Treasurer has approved an extension, to 28 February 2011, for the Authority to deliver the final report for its inquiry into water resource management and planning charges.

## 11 Appendix B. National Water Initiative Pricing Principles

### Pricing Principles for Recovering the Costs of Water Planning and Management Activities<sup>152</sup>

*Principle 1: Water planning and management activities.*

A framework for classifying water planning and management activities has been developed (see Table 11.1 below). This provides the basis on which water planning and management activities can be classified on a consistent basis.

*Principle 2: Government activities*

Water planning and management costs that are recovered through charges from water users should exclude the costs of activities undertaken for government, such as strategic or overarching policy development and Ministerial or Parliamentary services.

*Principle 3: Cost-effectiveness test*

The costs of water planning and management activities that have been identified for cost recovery from water users (in whole or in part) should be 'tested' for cost-effectiveness by an independent party, and the findings of such cost-effectiveness reviews are to be made public.

*Principle 4: Cost allocation*

Costs are to be allocated between water users and governments', using an impactor pays approach.

*Principle 5: Differentiation of costs*

Where practicable, water planning and management costs are to be identified and differentiated by catchment or valley and by water source. Similarly, any water planning and management charges should in turn recover the costs of the activities concerned and be differentiated by catchment or valley or region, and by water source (e.g. regulated, unregulated or groundwater sources) where practicable.<sup>153</sup>

*Principle 6: Community Service Obligations*

Where it is practical to do so, jurisdictions should aim to reduce or eliminate subsidies or Community Service Obligations. Any shortfall between the revenue required to achieve cost recovery from water users and the total costs recovered through water charges should be reported in a transparent manner.

<sup>152</sup> National Water Initiative Pricing Principles, pp14-15.

<sup>153</sup> For example, it is not considered practicable to differentiate water planning and management charges by catchment, valley or region or by water source where a jurisdiction can demonstrate that water planning and management costs do not vary significantly across catchments, valleys or regions or by water source, or it is very costly to determine costs at this level. A broader charge (such as a state-wide charge) may be applied where this is currently the case. Ibid, p15.

**Table 11.1 NWI Framework for Classifying Water Planning and Management Activities**

Activities	Whole or Partial Cost Recovery from Users
<b>A. Water Reform, Strategy and Policy</b>	
1. Development of intergovernmental agreements (e.g. National Water Initiative)	No
2. Development of broad strategies for managing water (e.g. State Water Plan in Western Australia)	No
3. Development and/or refinement of overarching statutory instruments (e.g. NSW <i>Water Management Act 2000</i> )	No
<b>B. Water Planning</b>	
1. Water resource planning (development of water resource plans; operationalisation and implementation of plans; monitoring and evaluation of planning outcomes and progress against targets; and review of water resource plans/development of new plans)	Yes
2. Environmental and ecosystem management planning (development of environmental management plans where related to water resources; and development of plans to manage water-dependent ecosystems)	Yes
<b>C. Water Management</b>	
1. Measures to improve water use (water use efficiency programs; development of property level water management plans; Great Artesian Basin Sustainability Initiative; and flood plain management)	Yes
2. Construction of works (construction of weirs, replacement of bores etc. to achieve water management outcomes – does not include significant water supply infrastructure)	Yes
3. Environmental works (works to reduce or remediate environmental impacts arising from water use)	Yes
<b>D. Water Monitoring and Evaluation</b>	
1. Monitoring and evaluation of water resources (water resource monitoring; water use monitoring; and water resource assessment)	Yes
2. Monitoring and evaluation of water dependent ecosystems (monitoring and evaluation of riverine health, wetland health and estuary health)	Yes
<b>E. Information Management and Reporting</b>	
1. Water resource accounting (development of frameworks and systems; and data collection and processing)	Yes
2. Publication of water resource information (including water use statistics, water trading statistics, resource condition and assessment reporting)	Yes
<b>F. Water Administration and Regulation</b>	
1. Administration of entitlements and permits (granting of water allocations, entitlements and permits to users; processing of applications and transactions; management of bulk water entitlements; ensuring compliance with licence and other conditions; regulation of water related works or developments; and benchmarking costs and standards of water planning and management activities)	Yes
2. Development of entitlement frameworks (including overland flow, interception and non use 'entitlements')	Yes

Activities	Whole or Partial Cost Recovery from Users
3. Administration of water trading arrangements (development and regulation of trading frameworks; and facilitation and administration of water trading)	Yes
4. Business administration (pricing review and implementation; financial management and reporting; and billing and debt management)	Yes
5. Administration of water metering arrangements (development of metering requirements and standards; implementation of metering requirements; and on-going management of metering activities)	Yes
<b>G. Water Industry Regulation</b>	
1. Oversight of water businesses (review of water business operations to ensure compliance with statutory requirements)	Yes

## 12 Appendix C. Water Resource Management and Planning Legislation

Some guidance on the key elements of water resource management and planning is provided in the objects clause of that part of the Rights in Water and Irrigation Act 1914 (**RiWI Act**) which refers to the control of water resources:<sup>154</sup>

- (a) To provide for the management of water resources and in particular
  - 1) for their sustainable use and development to meet the needs of current and future users; and
  - 2) for the protection of their ecosystems and the environment in which water resources are situated, including by the regulation of activities detrimental to them;
- (b) To promote the orderly, equitable and efficient use of water resources;

This objects clause needs to be interpreted within the context that all water courses, wetlands and under ground water sources are vested in the Crown unless they are allocated in accordance with a statutory function.<sup>155</sup>

Another act that provides guidance on what water resource management and planning involves is the *Water Agencies (Powers) Act 1984*. Section 9 of this act states:

- 1) The Minister [for Water] has the general functions of –
  - a) conserving, protecting and managing water resources;
  - b) assessing water resources;
  - c) planning for the use of water resources;
  - d) promoting the efficient use of water resources;
  - e) promoting the efficient provision of water services;
  - f) developing plans for and providing advice on flood management.

The Department has been established to support the Minister, and the CEO may act under delegated power, to undertake the following functions:

- *Country Areas Water Supply Act 1947*
  - Under Part II, making by-laws for the prevention of pollution in catchment areas or water reserves;
  - Under Part IIA, administering a scheme for clearing licences for certain controlled land and, where a licence is rejected, for payment of compensation for injurious affection;<sup>156</sup>
  - under Part VII, setting service charges for the functioning of country water supply systems.

<sup>154</sup> Two other objects are also included in the legislation: (c) to foster consultation with members of local communities in the local administration of this part, and to enable them to participate in that administration; and (d) to assist the integration of the management of water resources with the management of other natural resources.

<sup>155</sup> Section 5A of the RiWI Act vests unallocated natural water in the Crown.

<sup>156</sup> Injurious affection means the effect caused to neighbouring land from a public project.

- *Metropolitan Water Supply, Sewerage, and Drainage Act 1909*
  - under Part IV, making by-laws for the prevention of pollution in catchment areas or water reserves;
  - under Part VI, making by-laws for underground water pollution control areas in the metropolitan area; and licensing wells in public water supply areas in the metropolitan area.
- *Metropolitan Water Authority Act 1982*
  - planning for, and the administration of, arterial drainage, and for the declaration of drainage courses.
- *Rights in Water and Irrigation Act 1914*
  - licensing, or giving directions as to, the use of surface waters; and
  - licensing artesian wells and, in certain areas, non artesian wells.
- *Waterways Conservation Act 1976*
  - a conservation and resource management function, and associated powers, in respect of waterways and adjoining land in management areas under that Act.
- *Water Services Licensing Act 1985*
  - setting policy for the water industry, via regulations, exemptions and policies, whereas the Authority has powers to license water service providers.
- *Water Agencies Powers Act 1984*
  - conserving, protecting and managing water resources;
  - assessing water resources;
  - planning for the use of water resources;
  - promoting the efficient use of water resources;
  - promoting the efficient provision of water services; and
  - developing plans for and providing advice on flood management.

## 13 Appendix D. List of All Major Activities Undertaken by the Department of Water

List of Activities	
Water licensing and compliance	Water resource recovery
Water licensing support	Wheatbelt catchment water management
Regional hydrogeological advice	Climate, water and vegetation
IWSS licensing	Waterways
Water licensing policy	Aquatic risk
Enforcement	Aquatic chemistry and ecology
Water allocation planning	Policy reform implementation
Environmental water planning	Policy and water reform coordination
Water recycling and efficiency	Strategic water policy and planning branch administration
Rural water planning	Strategic water management
Water metering	Strategic water issues
Groundwater investigation, assessment and review	Legislation and legal services branch administration
Surface water assessment	Legal services
Spatial analysis (GIS)	Legislation
Water information collection	Water services branch administration
Water information management	Water services policy
Water information provision	Strategic water industry policy
Water accounting	Indigenous and remote communities water services
Statutory referrals	Indigenous support (affairs)
Drainage and water management planning	Regional water management
Arterial drainage studies	Regional coordination
Floodplain management advice	Corporate services
Water source protection planning	Officer of the Director General
Acquisition of Priority 1 land	Water resource use executive
Land assessment management	Water resource management executive
Preparation of guidance notes	Policy and planning executive
Implementation of water source protection plans	Regional management and water information executive

Source: Department of Water's submission on the Issues Paper (June 2009) and Department of Water, Costing of Water Activities, (May 2010).



## 14 Appendix E. Summary of Consultant Reviews of Effectiveness and Efficiency of the Department of Water

The Authority engaged consultants to assist with the assessment of the effectiveness and efficiency of the Department. This appendix presents a summary of:

- the findings of the PricewaterhouseCoopers (PwC) review of the effectiveness and efficiency of the Department;
- the response of the Department to the findings of the PwC review, submitted to the Authority as part of the Department's response to the Second Draft Report;
- PwC's response to the Department's comments on the PwC review;
- the case study of the Warren-Donnelly catchments by the Resource Economics Unit (REU), which examined the water allocation planning and management activities of the Department in that region.

All four documents are available on the Authority's web site.

### 14.1 PricewaterhouseCoopers Review of the Effectiveness and Efficiency of the Department of Water

PwC was engaged by the Authority in May 2010 to carry out a review of the effectiveness and efficiency of the Department in the activities which have been identified as being potentially suitable for cost recovery.

The PwC review was carried out at the detailed activity level, which best reflects the structure and organisation of the Department. A sub-set of eight of the Department's activities were examined, representing around 67 per cent of the Department's estimated cost of \$56.0 million for the activities identified for potential cost recovery. These activities were:

- water licensing and compliance;
- water allocation planning;
- groundwater assessment, investigation and review;
- water information collection (groundwater and surface water);
- IWSS licensing;
- metering;
- water source protection planning; and
- statutory referrals.

To determine effectiveness and efficiency in each of the activities, PwC examined, among other things:

- cost drivers, operating expenditure, capital expenditure, overheads and external funding;
- past budgets versus actual expenditure;

- business plans, where available, and decision-making processes for capital investments and prioritisation of expenditure; and
- performance monitoring and evidence of efficiency improvements.

In assessing the Department's efficiency, PwC was also able to benchmark the costs of some activities against costs incurred by the NSW Office of Water (**NOW**) for the same activities.

PwC's key conclusions are summarised below.

### 14.1.1 Strategic Planning

PwC found evidence of increasing strategic decision making by the Department in prioritising investments and effort (e.g. in licensing, allocation planning and statutory referrals). However, PwC identified some gaps in the Department's planning processes, including a lack of cost-benefit analysis in business planning; budget decisions in some areas driven more by the availability of external funds rather than strategic priorities; and a weak linkage between performance indicators and strategic objectives.

### 14.1.2 Effectiveness

PwC did not identify any areas where the Department was not meeting its legislative obligations. However, PwC identified some areas where the Department may be applying more effort than is needed for effective outcomes, for example:

- In licensing, the Department appears to apply a conservative framework, with a bias towards classifying licences in higher risk categories. Also, the Department applies high levels of effort to avoid successful legal appeals against rejected applications, given that the existing legislation does not provide much support to the Department's decisions to reject applications.
- There is little cost-benefit assessment of the efficient level of water source protection planning for public water supply areas.
- There is little assessment of the appropriate balance of effort in groundwater investigations between bore drilling (high cost) and modelling of data from bores (lower cost).

### 14.1.3 Efficiency

#### *Operating Costs*

PwC found that, overall, activities undertaken by the Department are worthwhile, delivering value to customers and assisting in delivering water management objectives. PwC found some evidence of efficiency improvements by the Department, for example:

- reduced processing times for licence applications;
- rationalisation of frequency of meter reading;
- increased surface water gauging without an increase in operating costs; and
- reduction in time to process water measurement information.

However, there was also evidence of further scope for efficiency gains:

- budget over-runs and inadequate project planning in bore drilling projects; and
- high licence administration costs compared to the NOW (\$1,000 per licence or permit more than NOW across all instrument types).

### *Overheads*

PwC found the Department's level of overheads to be comparable to those of the NOW (around 28 per cent of total operating costs compared to 25 per cent for NOW). Corporate overheads were around 11 per cent of total expenditure compared to 13 per cent for the NOW, and within the range of 10-12 per cent recommended by the NSW government for agencies of that size.

### *Capital Expenditure*

Capital expenditure was around 17 per cent of the total cost of the identified activities in 2008-09, which is a small but not insignificant proportion. Two thirds of this capital expenditure is related to meter installation, bore drilling, and information collection.

PwC was generally satisfied that the projects undertaken were necessary to enable the Department to meet its strategic objectives. The metering program on the Gngangara Mound has delivered its targeted number of meters at a lower cost per meter than the NOW (although NOW meters have telemetry, unlike meters in Western Australia).

However, the lack of detailed business cases for many projects meant that PwC was not able to confirm that all decisions to invest had been prudent (particularly in the areas of groundwater investigation and water information collection).

#### ***14.1.4 PwC Recommendations on Efficient Level of Expenditure***

PwC recommended that the following adjustments be made to the Department's costs to ensure that no inefficient costs are included in the costs that will be recovered:

- for operating costs, a 20 per cent downward adjustment on 2008-09 operating expenditure to reflect shortcomings in business planning, budgeting and performance tracking;
- for overheads, a 5 per cent downward adjustment on 2008-09 to reflect ongoing efficiency gains; and
- for capital expenditure, a downward adjustment of \$7.57 million to capital expenditure over the period 2006-07 to 2009-10 to reflect a 25 per cent adjustment each for the bore drilling program and the water information collection program.

Table 14.1 outlines PwC's recommended cost base for cost recovery.

**Table 14.1 PricewaterhouseCoopers Recommendations on the Cost Base for Cost Recovery by the Department of Water**

	2008-09 (\$ million)	2009-10 budget (\$ million)	PwC Recommendation		
			% Change to 2008-09	Adjustment (\$ million)	Recommended Cost Base (\$ million)
Direct operating expenditure – including internal branch support costs	29.61	31.08	-20%	-5.92	23.69
Overheads – indirect costs or on-costs	11.04	NA	-5%	-0.55	10.49
<b>Sub-Total</b>	<b>40.64</b>				<b>34.18</b>
Capital Expenditure	14.90	16.62	-15% (or -18%) over period 2006-07 to 2009-10	-7.57 over period 2006-07 to 2009-10	
<b>Total</b>	<b>55.54</b>				

Source: PricewaterhouseCoopers (August 2010), *Effectiveness and Efficiency Review of the Department of Water, Final Report to the Economic Regulation Authority*, p10.

## 14.2 Summary of the Department of Water's Comments on the PwC Review

In its submission on the Second Draft Report, the Department responded to the findings of the PwC Review. The Department disputed some of the findings and conclusions in the PwC report.

- The Department rejected the suggestion by PwC that external funding drives the Department's activities.
- The Department does not consider that rigorous cost-benefit analysis is required for routine operational decisions. However, the Department does use it for major investment decisions, such as large information technology systems.
- In response to the comment that the Department is poorly prepared for the new legislation, the Department submitted that preparation is commensurate with progress in the development of the legislation. The Department is being prudent in its investment in training, processes and systems, as there is a risk that the legislation will be further delayed.
- The Department accepts the need to develop better performance indicators.

### Licensing

The high level of effort spent on licences that are rejected is justified by the Department on the basis that this ensures thorough analysis and documentation of decisions and saves costs at the appeals stage.

The Department accepted there is room for improvement in the efficiency of its licensing activities – costs are higher than NSW. However, the Department noted a number of factors that explain the higher costs in WA, including that:

- licences in WA are predominantly for groundwater resources, which are more complex than surface water allocations;
- over half of NSW licences are for small stock and domestic users, which are simple to licence, whereas these users are exempt in WA; and
- NSW has more experience in water trades.

The Department accepted that there is a need to refine the risk assessment matrix and will be carrying out a review in preparation for cost recovery. However, the Department is of the view that the risk assessment matrix is generally reflective of the level of effort involved in processing different types of license.

The Department accepted the recommendation that more effort at the planning stage will help to reduce costs of licence assessments. However, the Department submitted that until statutory management plans are developed, licence applications must be assessed on a thorough case-by-case basis.

### *Public Drinking water Supply Protection*

The Department disagreed with the recommendation that cost benefit analysis should be used to determine the efficient level of planning for public drinking water source protection. The level of planning and resourcing is determined on the basis of a risk assessment before the plan commences and is driven by the Department's legislation. The Department does not accept the analysis that it may be over-servicing this activity and maintains that its level of expenditure on water source protection planning is efficient, as effective planning avoids costs associated with water treatment, and reduces the risks of contamination.

### *Groundwater Monitoring*

The Department submitted that the State Underground Investigation Program activities focus on areas where there are gaps in knowledge. Groundwater information gathered through drilling and monitoring is increasingly important as reliance on groundwater reserves increases.

### *Allocation Planning*

The Department rejected the assessment that its allocation planning is inefficient, and notes that it has had to respond to a significant shift in priorities since the 2007 State Water Plan, due to increased demand and reduced rainfall. The Department submitted that it has more than met the State Water Plan target of 10 plans between 2007 and 2011.

### *Efficiency in Capital Investment*

The Department maintained that its capital investment programs are prudent. Cost overruns in the groundwater program are explained on the basis of unforeseen increases in drilling costs during the resources boom. The Department considers that its annual capital expenditure in maintaining the state monitoring network is justified and carefully targeted under the governance of a steering committee.

### *Recommended Overall Efficient Level of Expenditure*

The Department is concerned about the reductions in expenditure proposed by the Authority and submitted that the reductions appear arbitrary and do not take into account the likely increase in costs in future due to the increasing complexity in the management of water resources.

The 25 per cent reduction in capital costs for the State Groundwater Investigation Program and State Monitoring Network Maintenance program was rejected as the Department considers its capital investments in these areas have been prudent and delivered appropriately.

The 5 per cent reduction in overheads is queried, as the PwC report found the Department's levels of overheads to be acceptable.

## **14.3 PwC's Response to the Department of Water's Submission**

The Authority requested PwC to comment on the Department concerns regarding PwC's review conclusions. PwC's response to the Department's concerns is published on the Authority web site.

### *External Funding Driving Priorities*

PwC, in its response to the Department, accepted that external funding may come with "strings attached" but that its concern was it could not find clear evidence of how the Department incorporated the priorities and conditions of funding partners into its business plans.

### *Inadequate Business Planning and Decision-Making Processes*

PwC agreed with the Department that it is not necessary to apply cost-benefit analysis to routine operational decisions. However, PwC's conclusions were based on a lack of evidence of cost-benefit analysis in some major areas of capital investment, such as the Department's 2005 plan for the \$28 million groundwater investigation program.

### *Poor Preparation for Potential New Legislation*

PwC did not refute the Department's comments and accepted that the Department is undertaking activities in preparation of the new legislation. However, PwC noted that it had found a lack of evidence in corporate planning documents on the implications of the new legislation for resources, skills and capital requirements.

### *Performance Indicators*

PwC responded that the current use of performance indicators, such as those in the Outcome Based Management Framework, was limited, and that better use of existing information, or development of alternative costs measures, would be needed to better monitor outcomes and set performance targets.

## *Effectiveness Review*

### **Licence Assessment**

PwC reiterated the bases of their conclusion that the Department may be “over-processing” some licences. These were that the Department’s risk matrix used to assess the risk of licences results in a disproportionate number of “high risk” licences relative to “medium risk”; that additional effort is employed in assessment in order to avoid appeals against decisions to reject licences; and that incomplete allocation plans in some areas meant less information was available to be drawn on in licence assessments. PwC acknowledged that the Departments’ assessment processes were in accordance with the requirements of its legislation.

### **Public Drinking Water Source Protection**

PwC acknowledged the statutory requirement of the Department to adhere to the Australian Drinking Water Guidelines, which employ the principle that land use planning is needed to protect drinking water sources from contamination. However, PwC reiterated the need for cost-benefit analysis to guide the level of planning required.

### **State Groundwater Investigation Program**

PwC does not refute the Department’s claim that its investigation activities focus on areas where there is insufficient knowledge about groundwater sources, but reiterate that it was not provided with documented evidence of the assessment of alternative investments.

## *Efficiency Review*

PwC disagrees with the Department’s view that it is inappropriate to benchmark the Department’s licensing costs against those of the NSW Office of Water, as PwC maintains that it controlled for differences between the two organisations in its benchmarking.

### **Operating Efficiency – Allocation Planning**

PwC acknowledged that its Executive Summary may have been misleading in not drawing attention to the fact that the Department has completed the targeted number of plans for the 2007-2011 period. However, PwC noted that the plans completed differed from those identified as priorities in the 2007 State Water Plan, and that this indicated a lack of robustness in the strategic planning of this activity which was not explained by changes in climatic conditions.

### **Capital Programs**

PwC reiterated that they had been unable to conclude that investments were prudent and delivered planned outputs at least cost, due to a lack of documentation and transparency in the Department’s capital planning framework.

### **Recommended Efficient Level of Expenditure**

PwC did not dispute that some of the Department’s activities are more efficient than others, but defended its recommendation of a 20 per cent reduction in aggregate direct operating expenditure as a reasonable estimate of the scope for efficiency gains in the Department, based on the evidence available to PwC on the Department’s strategic planning across the eight activities examined.

PwC acknowledged that the Department was likely to face increasing costs in the future due to the increasing complexity of water management, but was not able to assess this as only data for 2008-09 had been available.

While the Department's levels of overhead expenditure appeared acceptable, PwC's recommendation of a 5 per cent cut in expenditure reflected an expectation of ongoing efficiency savings in this area.

PwC also defended its recommendation of a 25 per cent reduction in capital costs, noting that it did not have sufficient evidence from its review of the Department's capital project planning that all the expenditure in this area was efficient.

## 14.4 Resource Economics Unit (REU) Case Study on the Warren-Donnelly Catchments

As a further test of whether the Department's level of effort in allocation planning and managing ongoing water use is appropriate, the Authority asked the REU to undertake a case study of the Department's allocation planning work in the Warren-Donnelly river basins (Manjimup area).<sup>157</sup> This involved an examination of the procedures, practices and costs incurred by the Department in its allocation planning function for the Manjimup area, and a review of past studies conducted by and for the Department.

### 14.4.1 REU's Report

In the report prepared by the REU, it was shown that the average annual stream flows in the Manjimup area as a whole are well in excess of diversions (the volume of surface water diverted for use from the resources of a river basin for supply to both within-basin and external customers). The mean annual runoff of the combined Warren and Donnelly rivers was 772,000 megalitres (ML) between 1975 and 1998, while the total water use in 2009-10 was expected to be around 35,000 ML. The majority of this water is for irrigated farming (85 per cent), mainly for horticultural products, and another 5 per cent of the water is used for rural domestic and stock purposes.

REU found that while most of the Donnelly catchment and a large proportion of the Warren catchment are forested, there are some areas of the catchments where farm density is very high (only 2 per cent of catchments in Victoria have a higher farm density than these areas<sup>158</sup>). In a few of these areas, the current water use is much higher than the allocation limit that was introduced by the Department in 2008 (when they were classified as C4 areas).<sup>159</sup> As a result, the Department has placed a provisional cap on use in these areas, with no new licences being issued.

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<sup>157</sup> Resource Economics Unit, May 2010, *Report to the Economic Regulation Authority on the Department of Water's Approach to Determining Allocation Limits in the Manjimup Area for the ERA Inquiry into Water Resource Management and Planning Charges*.

<sup>158</sup> SKM (2008), *Impacts of farm dams in Lefroy Brook upstream of Channybearup*, Sinclair Knight Merz, Armadale, Victoria 3143.

<sup>159</sup> The Department of Water classifies water sources into four categories – C1, C2, C3 and C4. C1 is where less than 30 per cent of a water source is allocated, C2 is where 30 to 70 per cent of a water source is allocated, C3 is where 70 to 100 per cent of a water source is allocated and C4 is where more than 100 per cent of a water source is allocated.



The sub-management areas that were classified as C4 areas were:

- Manjimup Brook/Yanmahs/Dixvale (Donnelly River basin);
- Wilgarup (Warren River basin);
- Smith Brook (Warren River basin);
- Upper Lefroy Brook (Warren River basin);
- Diamond Creek Gully (Warren River basin);
- Eastbrook (Warren River basin);
- Four Mile Brook/Big Brook (Warren River basin).

Two studies on the impact of farm dams on stream flows in the Manjimup area have been undertaken by Sinclair Knight Merz Consulting (**SKM**), one in 2007 and the other in 2008. In both studies, a modelling software package was used to estimate the effect of farm dams on surface water flows. The studies undertaken by SKM concluded that the farm dams in the Upper Lefroy Brook Catchment are significantly affecting stream flow at the Channybearup Gauge. It estimated that the annual flow is reduced by 22 per cent on average, with the largest volumetric reductions occurring during the months of April, May and June.

SKM found that the farm dams intercepted nearly all of the low summer flows, and that under natural conditions, only 24 days each year would have flow below 0.58 ML per day, compared to the observed 79 days each year with the farm dams. Also, it was found that the typically low-flow spells were nearly twice as long and 50 per cent more frequent due to the farm dams.

The Department has continued to review the allocation limit that was introduced in 2008, in particular the ecological basis used to estimate the sustainable yield.<sup>160</sup> This work has been the basis for the new Warren-Donnelly Water Management and Allocation Plan, which was released by the Department for public comment in June 2010. In the allocation plan, the Department has revised the total allocation limit for the area upwards, from 46,940 ML to 62,630 ML across the two catchments. There is no more water available for allocation in six of the nine sub-areas of the Donnelly River basin, and four of the 16 surface water areas of the Warren River basin (Tone River, Upper Lefroy, Eastbrook and Unicup Lakes).

#### 14.4.2 Assessment of the Department of Water's Level of Effort

The REU reviewed the Department's procedures and practices in setting allocation limits and developing allocation plans for the Warren-Donnelly Catchments. In REU's opinion, the Department's system for allocation planning gives priority to the areas that are most stressed, which is more cost efficient than a system that treated all areas in the same amount of detail.

The Department's general approach to determining allocation limits, as illustrated and explained in the REU's report to the Authority, is explained in Figure 14.1.<sup>161</sup>

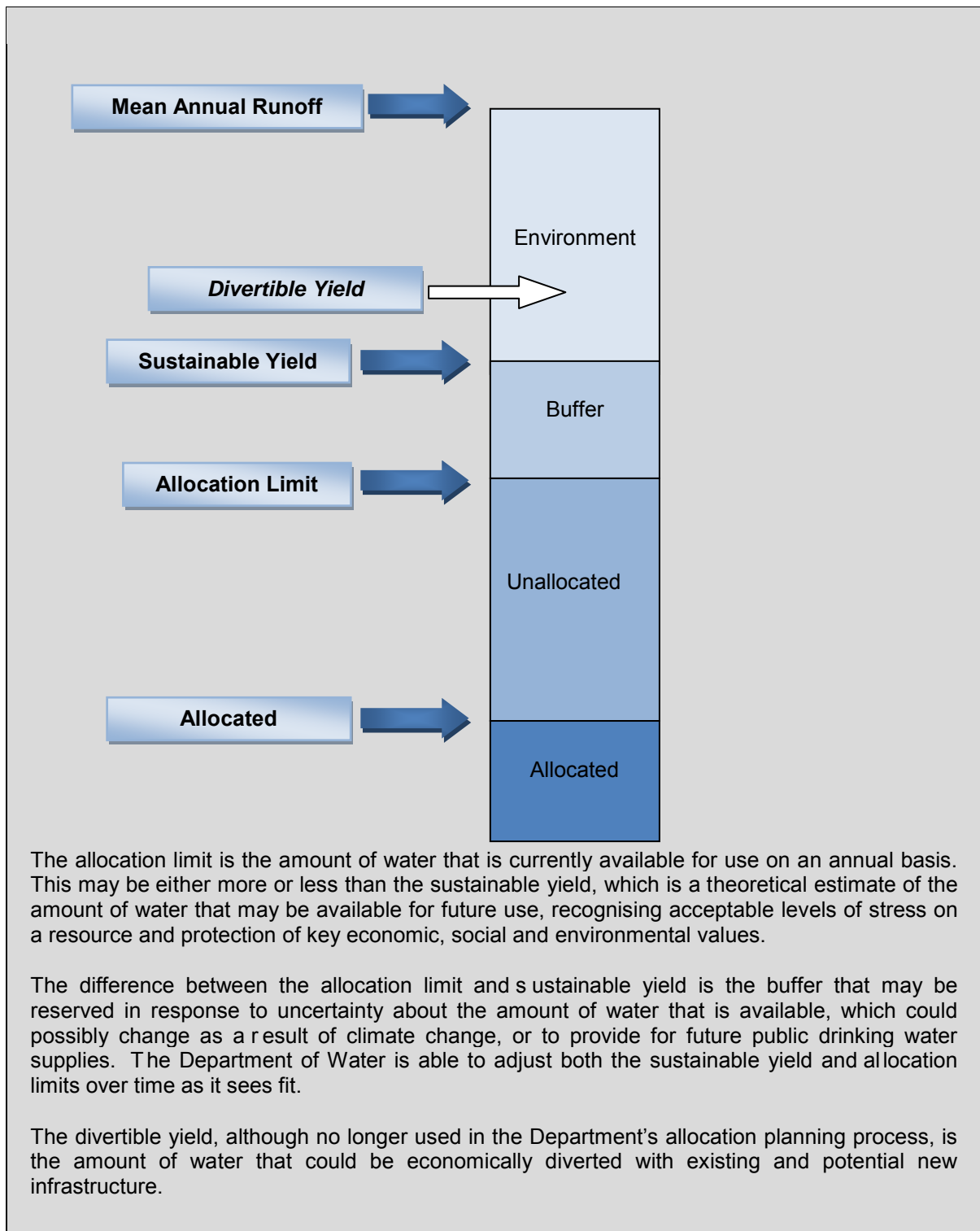
The case study concluded that, in the case of the Warren-Donnelly surface water area, the level of management response in allocation planning by the Department appears to have been appropriate and justified. In particular, the case study noted that:

<sup>160</sup> The limit on potentially divertible surface water that is allowed to be diverted after taking account of environmental values and making provision for environmental water needs.

<sup>161</sup> Resource Economics Unit, May 2010, *Report to the Economic Regulation Authority on the Department of Water's Approach to Determining Allocation Limits in the Manjimup Area for the ERA Inquiry into Water Resource Management and Planning Charges*, pp16-17.

- While the annual rainfall and run-off levels in the Warren-Donnelly catchments are high relative to other parts of the state, there are local sub-areas within the catchments where farm dam densities are very high by comparison to other parts of Australia. In these sub-areas, the interception of surface water by farm dams can significantly reduce stream flows in the summer and autumn months.
- Hydrological studies by the Department have focussed on those parts of the catchment where surface water issues are most critical.
- The development of a water allocation plan for the area has required a high level of engagement by the Department with water users in the area, and the collection of scientific evidence to support and justify any decisions on water allocations.

Figure 14.1 Establishment of Allocation Limits



## 15 Appendix F. Department of Water's Allocation Plan Status

**Table 15.1 Allocation Plan Status – 24 January 2011**

Region and Product title	Status*	Priority	Draft release	Final release
<b>Kimberley</b>				
Ord River surface water allocation plan	DoW Final (current)			2006
	DoW Review in development	HIGH		
Derby groundwater allocation plan	WAWA Final (current)			1992
	DoW Postponed	LOW		
Broome groundwater allocation plan	WAWA Final (current)			1994
	DoW Postponed	LOW		
La Grange groundwater allocation plan	DoW Final (current)		09/2008	2010
Dampier Peninsula groundwater allocation plan	DoW Postponed	LOW		
<b>Pilbara</b>				
Pilbara water in mining guideline	DoW Final (current)			2009
Pilbara water reform plan	DoW New in development	HIGH		
<b>Midwest Gascoyne</b>				
Exmouth groundwater allocation plan	WRC Final (current)			1999
	DoW Postponed	LOW		
Carnarvon Artesian Basin Water Management Plan	DoW Final (current)		1/05/2007	21/12/2007
Lower Gascoyne allocation plan	DoW Out for public comment	HIGH	30/11/2010	
Northern Perth Basin water reform plan	DoW Proposed			
Arrowsmith groundwater allocation plan	WRC Superseded - Final			2002
	DoW Final (current)	HIGH	14/08/2009	08/2010
Jurien groundwater area allocation plan	WRC Superseded - Final			1995
	DoW Final (current)	HIGH	18/09/2009	08/2010
New Norcia groundwater plan	WAWA Final (current)			1995
<b>Swan Avon</b>				
Gingin groundwater allocation plan	WRC Final (current)			2002
	DoW Review in development	MEDIUM		
Gingin surface water allocation plan	DoW Managing to draft - finalising plan	MEDIUM	22/09/2009	-

Region and Product title	Status*	Priority	Draft release	Final release
<b>Swan Avon (continued)</b>				
Gnangara groundwater areas allocation plan	DoW Final (current)		1/02/2008	2009
Gnangara water reform plan	DoW Review in development	HIGH		
Perth North groundwater allocation plan	Superseded - Final			1992
Wanneroo groundwater area allocation plan	Superseded - Final			1993
Swan groundwater area allocation plan	Superseded - Final			1997
Lower Canning River surface water allocation plan	DoW Managing to draft – finalising plan	MEDIUM	17/09/2010	
<b>Goldfields</b>				
Goldfields groundwater area allocation plan	WAWA Final (current)			1994
<b>Kwinana Peel</b>				
Perth South and Jandakot groundwater allocation plan	DoW Postponed	LOW		
Cockburn groundwater allocation plan	DoW Final (current)			2007
Serpentine groundwater allocation plan	DoW New in development	LOW		
Rockingham - Stakehill groundwater allocation plan	DoW Final (current)		21/12/2007	2009
Murray groundwater allocation plan	Superseded - Final			1998
	DoW Managing to draft - finalising plan	MEDIUM	16/04/2010	
South West Coastal groundwater allocation plan	WAWA Final (current)			1989
	DoW Review in development	LOW		
<b>South West</b>				
Kemerton groundwater allocation plan	DoW Final (current)			2007
Harvey Basin surface water allocation plan	DoW Final (current)			1998
	Proposed			-
Upper Collie allocation plan	DoW Final (current)			2009
Lower Collie surface water allocation plan	DoW New in development	HIGH		
Collie water reform plan	DoW Review in development	HIGH		
Preston River surface water allocation plan	DoW Proposed			
Bunbury groundwater allocation plan	Superseded - Final			1995
Busselton-Capel groundwater allocation plan	Superseded - Final			1994

Region and Product title	Status*	Priority	Draft release	Final release
<b>South West (continued)</b>				
South West groundwater areas allocation plan	DoW Final (current)		02/2008	2009
South West surface water, water reform plan	DoW proposed	LOW		
Whicher area surface water allocation plan	DoW Final (current)		28/06/2007	2009
Warren-Donnelly surface water allocation plan	DoW Managing to draft - finalising plan	HIGH	04/06/2010	
<b>South Coast</b>				
Denmark River surface water allocation plan	Postponed	LOW		
Marbellup Brook surface water allocation plan	Postponed	LOW		
Albany groundwater allocation plan	Postponed	LOW		
Esperance groundwater allocation plan	DoW Final (current)			05/2007

\* Note:

DoW – Department of Water  
WAWA – Western Australian Water Authority (now Water Corporation);  
WRC – Water and Rivers Commission (now Department of Water)

## 16 Appendix G. Other Approaches to Cost Recovery of Natural Resource Management Activities

### 16.1 Water Resource Management Fees in NSW

In New South Wales, water resource management and planning activities are the responsibility of the Water Administration Ministerial Corporation (WAMC), and have until recently been carried out by the Department of Water and Energy (DWE). The New South Wales Office of Water (NOW) is now responsible for carrying out water resource management and planning activities. The prices charged by WAMC, including the charges by the NOW to water licence holders to recover some of the costs it incurs in water management and planning, are reviewed and regulated by the Independent Pricing and Regulatory Tribunal (IPART). IPART has recently completed its review of charges for 2011, which will apply from 1 July 2011 to 30 June 2014.<sup>162</sup>

Water resource management charges in NSW vary by region, as defined by individual water sharing plans. Charges comprise some or all of the following elements:

- a fixed charge based on the entitlement volume;
- a usage charge (usage is metered); and
- a minimum charge of \$95.

In addition, there are administration charges to all users (for example, for temporary transfers of water, new water access licences, and new or amended approvals).

IPART sets the prices that the NOW can charge, by:

- establishing the future revenue to be recovered (which is the amount needed to cover operating and maintenance expenses, administration expenses, a return on capital, and depreciation). Efficient costs are assessed by examining cost drivers, planning processes, cost allocation methods, cost benchmarking with comparative organisations, and water management outcomes; and
- determining the costs to be recovered from licence holders or the public on the basis of an “impactor pays” approach for each water management activity (who is causing the costs to be incurred).

IPART has also developed a system of reporting measurements for the NOW in its final report for the 2011 pricing Determination, which is discussed in Appendix J.

#### 16.1.1 IPART’s Approach to the Allocation of Costs

IPART engaged ACIL Consulting (ACIL) for its 2001 bulk water review, to develop a framework for allocating costs between water users and the broader community. An ‘impactor pays’ approach to cost sharing, which seeks to allocate costs to different

<sup>162</sup> IPART (September 2006), Bulk Water Prices for State Water Corporation and Water Administration Ministerial Corporation from 1 October 2006 to 30 June 2010 – Final Determination; and IPART (July 2009), Review of Prices for Water Administration Ministerial Corporation from July 2010 – Issues Paper

individuals or groups in proportion to the contribution that each individual or group makes to create the costs (or the need to incur the costs), was developed by ACIL and adopted by IPART.<sup>163</sup>

Following a review of these cost sharing principles by the Centre of International Economics (CIE) for the 2006 bulk water review, many of the cost share ratios adopted in 2001 were maintained in the 2006 and 2011 determinations. Where a new activity did not correspond to an activity code used in the 2001 determination, IPART has developed cost share ratios after considering CIE's recommendations and the 'impactor pays' principle.

**Table 16.1 Selected NOW Activities and 2011 User Share of Costs**

Activity	User Share of Costs (%)
<b>Surface and Groundwater Metering Analysis</b>	
Metering Operations	100
Metering Data Management	100
<b>Water Modelling and Impact Assessment</b>	
Water Sharing/Water Management Modelling	50
Resource Assessments	30
<b>Water Management Planning</b>	
Water Sharing Plan Development	70
Operational Planning	75
Environmental Water Management Planning	0
Water Industry Regulation	30
<b>Water Management Implementation</b>	
Systems Operation and Water Availability Management	100
Trading and Accounts Management	100
Environmental Water Management	0
Plan Performance Monitoring and Reporting	50
<b>Water Consents Administration (Licensing)</b>	
Consents Administration	100
Licence Conversion and Entitlement Specification	100
Consent Transaction Overhead	100
Compliance	100
Water Consents Transactions	100
<b>Capital Program</b>	
Metering Water Use Systems on Unregulated Rivers and Groundwater	100

Source: IPART, 2011, *Review of Prices for the Water Administration Ministerial Corporation For the NSW Office of Water From 1 July 2011-Final Report*.

In its 2011 determination, IPART has attributed approximately 59 per cent of the NOW's water management costs to users by the last year of the Determination period.<sup>164</sup>

<sup>163</sup> Independent Pricing and Regulatory Tribunal, 2009, *Review of Prices for Water Administration Ministerial Corporation*, p30.



In the final report on its latest review of bulk water prices, IPART continued to favour the 'impactor pays' approach, since it signals to water users the costs of their activities, including any environmental costs that are a consequence of those activities.<sup>165</sup>

## 16.2 Department of Fisheries Licence Fees

Fishing licence fees in Western Australia have two components:

- licence administration fees; and
- fish resource management fees.

### 16.2.1 Administration Fees

Fishing licence administration fees recover the administration costs associated with the granting, renewal, variation and transfers of different types of licences. These costs include the administrative costs of registering and processing applications, and maintaining the licensing data base. For example, the fee in 2008-09 for the granting or renewal of a fishing boat licence was \$82, and for transfer or variation of such a licence \$453.

### 16.2.2 Resource Management Fees

Fisheries resource management fees recover the costs of fish resource management activities by the Department of Fisheries, including research into fish stocks and sustainable yields, monitoring and compliance activities, industry consultation and information dissemination. Fisheries resource management fees can amount to tens of thousands of dollars per year (e.g. \$33,912 for a Shark Bay Prawn managed fishery licence, or \$27,223 for per boat for a Class A boat for a Shark Bay Scallop managed fishery licence).

Fisheries resource management fees are determined on the basis of full cost recovery for the major commercial fisheries, and as a contribution towards resource management costs for the minor commercial fisheries. Any under-recovery by the minor fisheries is paid for by Government.

- For six major commercial fisheries, management fees are based on the full cost recovery of the resource management costs associated with those fisheries (abalone, Exmouth Gulf Prawn, Shark Bay Prawn, Shark Bay Scallop, pearling and West Coast Rock Lobster). The Department of Fisheries determines the direct costs of management, compliance and research activities, plus allocated overheads, for each type of fishery and determines management fees per unit to recover those costs.
- The other (minor) commercial fisheries pay management fees that are a weighted average contribution towards management costs. These fees are determined as a percentage of the gross production value of the fishery. The percentage used is based on the average percentage of gross production value paid by the major (full cost recovery) fisheries; i.e.

<sup>164</sup> IPART, February 2011, *Review of Prices for the Water Administration Ministerial Corporation For the NSW Office of Water From 1 July 2011-Final Report*, p79.

<sup>165</sup> Ibid, p78.

- percentage contribution to cost recovery by minor fisheries =  
(total costs recovered from the major fisheries, \$million)  
*divided by*  
(total gross production value of the major fisheries, \$million) x 100.
- In addition to the cost recovery element of the management fees, all major and minor commercial fisheries also pay a contribution to the community through the Development and Better Interest Fee, which is used by the Minister for Fisheries “in the better interest of fisheries generally and fish and fish habitat protection”.<sup>166</sup> The total annual contribution across the fishery industry to Development and Better Interest fees is calculated as 0.65 per cent of the gross value of production of the fishery industry, or \$3.5 million, whichever is the higher.
- Fisheries resource management fees may also include specific industry levies, deductions for any subsidies or non-recoverable items, and an adjustment for under or over-recovery in the previous year.

As an example, in 2008-09, Western Rock Lobster licence holders paid a management fee of \$147 per lobster pot, covering direct management costs (\$83.37), allocated costs (\$44.37), Development and Better Interest fee (\$25.16), industry contribution to the Western Rock Lobster Council (\$2), and deductions of \$3.02 for licensing revenues, \$2.90 for the Serious Offences Unit (a cost not recovered from licence holders), and \$1.96 for over-recovery in the previous year.

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<sup>166</sup> Department of Fisheries (October 1999), *Cost Recovery Guidelines under an Integrated Project and Activity Costing Framework*, p9.

## 17 Appendix H. Recommended Fees and Charges for Water Resource Management and Planning Activities

**Table 17.1 Authority's Indicative Fees and Charges Based on Recovery of 2008-09 Efficient Cost Estimates (Rounded Down to the Nearest \$5)**

Services	Year 1 – 25 Per Cent of Efficient Costs Recovered (\$)	Year 2 – 50 Per Cent of Efficient Costs Recovered (\$)	Year 3 – 100 Per Cent of Efficient Costs Recovered (\$)
<b>A. Processing and assessment of applications for water licences and permits (per application)</b>			
<i><b>New 5C licence*</b></i>			
Low risk			
Basic	415	835	1,670
Complex	1,210	2,425	4,850
Medium risk			
Basic	685	1,370	2,740
Complex	1,550	3,100	6,200
High risk			
Basic	710	1,425	2,850
Complex	1,320	2,645	5,290
<i><b>5C licence renewals*</b></i>			
Low risk	205	410	825
Medium risk	260	525	1,055
High risk**	245	495	990
<i><b>Other licence application fees</b></i>			
Amendment of a licence	595	1,190	2,380
Trade or transfer of a licence	730	1,465	2,930
Licence to construct or alter a well	455	915	1,835
Permit to interfere with bed or banks	415	835	1,670
<b>B. Licensing of the Water Corporation for the IWSS – Indicative Only (per year)</b>	68,105	136,215	272,430
<b>C. Providing water allocations and managing the ongoing use of water (per licence)</b>	Charges to be deferred until new legislation in place		
<b>D. Water Metering</b>			
<i><b>Meter supply, installation and maintenance (per meter)</b></i>	925	1,850	3,705
<i><b>Meter reading (per meter reading)</b></i>	5	10	20
<i><b>Metering data services (per year)</b></i>	20	45	90

Continued...

Services	Year 1 – 25 Per Cent of Efficient Costs Recovered (\$)	Year 2 – 50 Per Cent of Efficient Costs Recovered (\$)	Year 3 – 100 Per Cent of Efficient Costs Recovered (\$)
<b>E. Protecting public drinking water sources (annually)</b>			
<b><i>Planning and Implementation – Indicative</i></b>			
Water Corporation	394,650	789,300	1,578,600
Aqwest	6,755	13,515	27,030
Busselton Water	2,365	4,730	9,460
<b><i>P1 Land Management - Indicative</i></b>			
Water Corporation	13,965	27,930	55,865
<b><i>Purchase of P1 Land - Indicative</i></b>			
Service providers			Case-by-case

## 18 Appendix I. Examples of Impacts of Fees and Charges

Type of Enterprise	Source of Water	Volume of Allocation (kL)	Level of Catchment Allocation	Typical Level of WRM Effort	Application Risk Category	New Licence Application Fee (\$)	Licence Renewal Fee (\$)
Small Winery	Groundwater	11,400	C1	Low	Low - Basic	1,670	825
					Low - Complex	4,850	
Small Agriculture	Groundwater	72,000	C1	Low	Low – Basic	1,670	825
					Low - Complex	4,850	
Large Winery	Groundwater	360,000	C1	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
Large Agriculture	Groundwater	4,500,000	C1	High	High – Basic	2,850	990
					High - Complex	5,290	
Mining Exploration	Surface water	31,666	C2	Low	Low - Basic	1,670	825
					Low - Complex	4,850	
Roadworks	Surface water	31,668	C2	Low	Low - Basic	1,670	825
					Low - Complex	4,850	
Small Horticulture	Groundwater	18,500	C2	Low	Low - Basic	1,670	825
					Low - Complex	4,850	
Golf Course	Groundwater	262,500	C2	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
Mining-Dewatering	Groundwater	3,800,000	C2	High	High – Basic	2,850	990
					High - Complex	5,290	

Type of Enterprise	Source of Water	Volume of Allocation (kL)	Level of Catchment Allocation	Typical Level of WRM Effort	Application Risk Category	New Licence Application Fee (\$)	Licence Renewal Fee (\$)
Large Horticulture	Groundwater	10,000,000	C2	High	High – Basic	2,850	990
					High - Complex	5,290	
Water Service Provider	Groundwater	12,000,000	C2	High	High – Basic	2,850	990
					High - Complex	5,290	
LGA-Small Public Open Space/Recreation	Groundwater	5,250	C3	Low	Low - Basic	1,670	825
					Low - Complex	4,850	
Caravan Park	Groundwater	15,000	C3	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
Abattoir	Groundwater	35,000	C3	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
Small Agriculture	Groundwater	72,000	C3	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
LGA-Large Public Open Space/Recreation	Groundwater	580,050	C3	Medium	Medium - Basic	2,740	1,055
					Medium - Complex	6,200	
Large Agriculture	Groundwater	4,500,000	C3	High	High – Basic	2,850	990
					High - Complex	5,290	
Water Service Provider	Groundwater	950,000	C3	High	High – Basic	2,850	990
					High - Complex	5,290	
Commercial Irrigation	Surface water	55,500,000	C3	High	High – Basic	2,850	990
					High - Complex	5,290	

Type of Enterprise	Source of Water	Volume of Allocation (kL)	Level of Catchment Allocation	Typical Level of WRM Effort	Application Risk Category	New Licence Application Fee (\$)	Licence Renewal Fee (\$)
Mining-Dewatering	Groundwater	10,886	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
Small Winery	Groundwater	11,400	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
Large Winery	Groundwater	360,000	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
Small Horticulture	Groundwater	18,500	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
Large Horticulture	Groundwater	10,000,000	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
School	Groundwater	28,500	C4	High	High – Basic	2,850	990
					High - Complex	5,290	
Industrial	Surface water	4,400,000	C4	High	High – Basic	2,850	990
					High - Complex	5,290	

## 19 Appendix J. Independent Pricing and Regulatory Tribunal Reporting Measures for the New South Wales Office of Water (NOW)

**Table 19.1 IPART's Annual Reporting Measures for the NOW**

Measure
<p>1) Financial reports, which include the following information by valley or in the case of groundwater by the inland/coastal divisions:*</p> <ul style="list-style-type: none"> <li>• revenue collected from water charges</li> <li>• operating expenses separately identified by activity codes</li> <li>• current year allowed expenditure and actual expenditures</li> <li>• explanation of the variation between allowed operating/capital expenditures and actual expenditure</li> <li>• FTE staff reports on the resources allocated to each activity code</li> </ul> <p>2) Reports of actual revenue received from the Commonwealth in relation to Scenario 2 expenditure. (Note: Scenario 2 was for prices including cost increases of core activities, plus cost increases due to Commonwealth reform requirements. NOW proposed this pricing structure in the event that the Commonwealth does not fund it for the full cost of the reform requirements.)</p> <p>3) Reports of progress against delivery of key Monopoly Service Outputs including:</p> <ul style="list-style-type: none"> <li>• Expanding the hydrometric network by 128 stations to a total of 513 by 2014/15 and increasing the frequency of visits to these stations to 6 visits a year to improve the monitoring information available to NOW and users.</li> <li>• Completing the Water Sharing planning process and its implementation by: <ul style="list-style-type: none"> <li>- completing the remaining 18 inland Water Sharing plans by 2013</li> <li>- completing the 20 remaining coastal valley Water Sharing plans by 2013</li> <li>- revising all existing Water Sharing plans for Murray-Darling Basin River resources by 2014 to enable 'accreditation' of existing plans with the Basin Plan</li> <li>- reviewing and remaking a total of 31 existing Water Sharing plans before 2014, prior to their 10 year expiry date</li> <li>- implementing the rules under more than 80 Water Sharing plans across NSW</li> </ul> </li> <li>• Publishing and implementing outstanding operational plans and policies, including: <ul style="list-style-type: none"> <li>- the Floodplain Harvesting Policy and rules for issuing floodplain harvesting licences</li> <li>- the Reasonable Use Guidelines for Basic Landholder Rights Holders to address unconstrained extraction by stock and domestic rights holders</li> <li>- the Policy for Return Flow Credits for extractive uses</li> <li>- rules and processes for controlled allocation of unassigned water to licensed users</li> <li>- aquifer interference rules and guidelines to inform and manage licences extractive industries</li> <li>- planning rules for surface and groundwater interception and extraction</li> <li>- rules for stormwater harvesting</li> <li>- rules for groundwater trading in embargoed water sources</li> </ul> </li> <li>• Ensuring that 90 per cent of transactions for the permanent transfer of access licences are processed within 28 days</li> <li>• Ensuring that 60 per cent of all other transactions and approvals are processed within 3 months</li> <li>• Ensuring that 100 per cent of licence breaches reported are actioned</li> </ul> <p>4) Reports of cost driver units or volumes by valley – including the volume of cost driver units by cost code, water source (regulated river, unregulated river and groundwater) and valley – e.g., for C01-01 this would include the number of Office-funded gauging sites for each related river and unregulated river valley</p>

\* In allocating costs to valleys, the NOW is expected to apply the cost allocation methodology adopted in IPART's 2011 Determination.



**Table 19.2 IPART's End-of-Determination Period Reporting Measures for the NOW**

Measure
1) Report of progress against delivery of the Monopoly Service Offering listed in Appendix L (in IPART's final report)
2) Report of actions undertaken by the NOW to improve its: <ul style="list-style-type: none"><li>• consultation with users about performance, expenditure and revenue</li><li>• billing systems and administration</li><li>• financial systems, including the ring-fencing of expenditures related to the monopoly services</li><li>• asset management and capital planning frameworks</li><li>• timely, accurate and complete annual reports, as sought by IPART</li></ul>

## 20 Appendix K. Glossary

Act	<i>Economic Regulation Authority Act 2003</i>
BOM	Bureau of Meteorology
CME	Chamber of Minerals and Energy
CoAG	Council of Australian Governments
DAFWA	Department of Agriculture and Food Western Australia
Department	Department of Water
DTF	Department of Treasury and Finance
FTE	Full-time equivalent
IPART	Independent Pricing and Regulatory Tribunal
IWSS	Integrated Water Supply Scheme
KPI	Key performance indicator
LGA	Local government authority
MJA	Marsden Jacob Associates
MOU	Memorandum of Understanding
NOW	New South Wales Office of Water
NWC	National Water Commission
NWI	National Water Initiative
PwC	PricewaterhouseCoopers
Quantum	Quantum Management Consulting & Assurance
REU	Resource Economics Unit
RiWI Act	<i>Rights in Water and Irrigation Act 1914</i>
SGIP	State Groundwater Investigation Program
SGWC	Steering Group on Water Charges
WACOSS	Western Australian Council of Social Services
WALGA	Western Australian Local Government Association
WAPC	Western Australian Planning Commission

