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Queensland Competition Authority

SunWater Administration Cost Review Phase 2

25 August 2011

Deloitte.

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John Hall
The Chief Executive Officer
Queensland Competition Authority
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25 August 2011

Dear Mr Hall

RE: SunWater Admin Costs – Phase2 Review

Deloitte is pleased to submit this final report to the Queensland Competition Authority as part of the SunWater Irrigator Price Review process. Please do not hesitate to contact me directly should you wish to discuss.

Yours sincerely

Kumar Padisetti
Partner
Energy and Infrastructure Advisory

Contents

Statement of Responsibility

This report was prepared for the Queensland Competition Authority as part of the 2012-17 irrigation price review, for the purpose of assessing the efficiency of SunWater's proposed administration costs and the appropriateness of the allocation methodology used to apportion administration costs to irrigation customers. In preparing this report we have relied on the accuracy and completeness of the information provided to us by the Queensland Competition Authority and SunWater and from publicly available sources.

We have not audited or otherwise verified the accuracy or completeness of the information. We have not contemplated the requirements or circumstances of anyone other than the Queensland Competition Authority.

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1 Executive Summary

The Queensland Competition Authority ('Authority') has been directed by the Queensland Premier and the Treasurer ('Ministers') to establish irrigation prices to apply to 22 of SunWater's Bulk Water Supply Schemes and 8 Distribution Supply Schemes ('WSS') from 1 July 2012 to 30 June 2017.

The Ministerial Notice requires that bulk water supply and irrigation channel prices be set so that it allows SunWater to recover:

- its efficient operational, maintenance and administrative costs;
- prudent and efficient expenditure on renewing and rehabilitation existing assets, through a renewals annuity; and
- a commercial return of and on prudent capital expenditure for augmentation commissioned on or after 30 September 2011

The Authority has sought external, expert advice from Deloitte Touche Tohmatsu ('Deloitte') in response to the Minister's Notice. In particular, independent expert advice was sought to carry out an assessment of the prudency and efficiency of SunWater's proposed administration costs and the reasonableness of the allocation of administration costs to WSS and to medium and high priority customers. This report represents our analysis and findings to date including:

1. An assessment of the reasonableness and prudency of SunWater's cost base through a benchmarking and case study exercise. In addition we have undertaken a bottom-up 'needs based' assessment of the services provided and associated labour effort to help establish the benchmarking exercise and identify where labour is being spent
2. An assessment of the allocation of administrative costs to scheme and customer level. We reviewed SunWater's proposed allocation methodology and completed an assessment of the appropriate drivers for each administrative function.

Overall SunWater's cost structure was found to be within expected global benchmark ranges. Our MAE (missions, activities and end-products) analysis did not identify any major structural issues with the delivery of services. Our final analysis indicates there is an opportunity to reduce FTEs by 2.3 – 2.9 % (of the 178.4 FTE's we assessed). The main opportunities identified are within the Finance, HR, ICT and Health Safety, Environment and Quality (HSEQ) functions.

Based on a median SunWater salary of $98,582 (for the forecast year 2012), this translates to a potential saving of $409,115 to $507,697. As this saving includes the statutory on-costs associated with employees, such as superannuation payments, it represents a comprehensive view of the potential efficiency opportunities faced by SunWater.

We have identified a number of areas of SunWater's proposed CAM that could be improved. In particular, to allocate the costs of some functions using direct costed labour may result in the apportionment of costs to customers that do not necessarily bear the most responsibility for their causation. Taking into account the activities carried out by SunWater staff across key functions and the impact of using alternative cost allocation bases (CABs) quantified through a modelling exercise, we have recommended alternative CAB(s) for the following functions:

- Finance
- Procurement
- Infrastructure Management – Regions
- Infrastructure Management – Asset Management
- Infrastructure Management – Water Accounts
- Infrastructure Management – General Manager and Service Delivery
- Infrastructure Development.

We note that our analysis has been undertaken from an economic perspective. In making a final decision the QCA may wish to take into account other considerations such as the size of the impact on individual customer groups or equity considerations.

A key finding of the review was that SunWater defines its overhead and indirect costs in a unique way. Typically a business will define overhead costs as those costs occurring in head office functions that are not able to be directly charged. While SunWater does consider these costs as overheads, SunWater also considers non-utilised time of field staff (approximately 20 per cent of their time) as an overhead cost. In most businesses, this would be considered an operational expense. The impact of SunWater's unique definition is that the total overhead amount appears large. In looking at an alternative allocation methodology, we have recommended that costs associated with non-utilised employee costs be allocated only to the Service Contracts those employees service, rather than being spread across the entire business.

In regard to the allocation of costs to customer groups within Service Contracts, we recommend that a weighted factor, such as SunWater's HUF, is used to allocate both capital and O&M costs. This is because in the absence of a relationship between administration costs and WAE delivery, an approach taking into account the relative benefits received by customer groups is preferred.

2 Introduction

2.1 Background to the Price Setting Review

The Authority has been directed by the Ministers to establish irrigation prices to apply to 22 of SunWater's Bulk Water Supply Schemes and 8 Distribution Supply Schemes ('WSS') from 1 July 2012 to 30 June 2017. This period was originally 1 July 2011 to 30 June 2016 however an amended Ministers' Referral Notice (the Notice) revised it forward by one year.

Copies of the original and amended Ministers' Referral Notices are available at http://www.qca.org.au/water/Sun-Irrig-Price/index.php

The Notice requires that bulk water supply and irrigation channel prices be set so that it allows SunWater to recover:

- Its efficient operational, maintenance and administrative costs
- Prudent and efficient expenditure on renewing and rehabilitation existing assets, through a renewals annuity
- A commercial return of and on prudent capital expenditure for augmentation commissioned on or after 30 September 2011.

The Notice also requires the Authority to adopt tariff groups as proposed in SunWater's Network Service Plans (NSPs), recommend regulatory arrangements to manage the risks associated with allowable costs outside the control of SunWater, take into account the level of service provided by SunWater and have regard for the legitimate commercial interests of SunWater. The Notice has directed the Authority not to consider the recovery of costs associated with dam safety upgrades and any return on existing rural irrigation assets as of 30 September 2011.

This is the first time the Authority has been directed to undertake a price review of SunWater. The previous irrigation price path (2006-2011) was agreed through a consultative process between SunWater and a representative group of SunWater's stakeholders (called the State-wide Irrigation Pricing Working Group or Tier 1) in 2005.

The 2012-2017 irrigation price setting process commenced in mid 2010 and the Authority was initially required to recommend draft irrigation prices no later than 30 June 2011. This has been extended to 31 October 2011. At the time of this report SunWater had provided the Authority with NSPs for each bulk and distribution service contract in the 22 WSS of relevance to irrigators. The NSPs, at a high level, partially outline the administrative costs to be incurred by each WSS over the price setting period. In response to the release of the NSPs, both the Authority and a number of Irrigators have requested additional detail from SunWater.

To date no prices have been presented by either the Authority or SunWater with respect to the 2012–2017 price path.

2.2 Terms of Reference and Approach

The Authority has sought external, expert advice from Deloitte Touche Tohmatsu ('Deloitte') in response to the Minister's Notice.

In particular, independent expert advice was sought to carry out an assessment of the prudency and efficiency of SunWater's proposed administration costs and the reasonableness of SunWater's allocation of administration costs to WSS and to medium and high priority customers. This has been outlined in a list of six requirements including:

- Identification of the relevant components of administration cost
- Reconciliation of total administration cost in NSPs to relevant cost components
- Identification of cost objects (e.g., customer groups)
- Bottom-up needs based assessment of administration functions using mission, activities and end products (MAE) analysis
- Assessment of administration cost projects against benchmarks, identifying efficiency improvements, and reviewing escalation rates
- Review of SunWater's administration cost allocation methodology.

Our approach can be broken into two distinct pieces of analysis:

1. Assessing the reasonableness and prudency of SunWater's cost base
2. Assessing the allocation of administrative costs to scheme segments and customers.

Assessing Reasonableness and Prudency

In assessing the reasonableness and prudency of SunWater's cost base we have undertaken a comprehensive benchmarking exercise at a functional and sub-functional level against a benchmark of 74 international utilities. We have also assessed SunWater's administrative costs against local water and electricity utilities. This has been supported by a detailed assessment of the services being provided by SunWater both internally and externally through a MAE exercise, which has assisted in normalising benchmarks, identifying non-core activities and where efficiencies may exist. The MAE exercise involved interviews with senior management across all major administrative functions. See Section 3.4.2 for further details.

Assessing the Allocation Methodology

To assess the proposed allocation methodology we worked with SunWater to understand and document the cost allocation methodology being applied to administrative costs within SunWater's financial model. See Appendices B and C for worked examples of the methodology. We completed a detailed assessment of alternative CABs for the majority of SunWater's administrative function to identify the most suitable allocators. This assessment involved modelling the impact of using different CABs to allocate the overhead and indirect costs of these functions. The CABs modelled were agreed upon at a workshop conducted with key SunWater personnel and QCA staff. See section 4.2.4 for a more detailed explanation of this analysis. We also carried out a qualitative assessment of SunWater's proposed approach to allocating costs to customer groups within Service Contracts. This analysis is provided in section 4.2.5.

3 SunWater's Administrative Costs

3.1 SunWater's Services

SunWater is a Government Owned Corporation (GOC) charged with facilitating the provision of safe and reliable bulk water services to regional Queensland. SunWater is governed by the *Water Act 2000*, under which it is a registered 'Large Service Provider for Water Supply and Sewerage Services'. It is licensed to provide bulk, irrigation and retail water services as well as drainage and sewerage services.

As the largest water service supplier in the state, SunWater owns and operates a network of water infrastructure, as well as providing consulting expertise in water infrastructure design, delivery and management. Its core activities include:

- Bulk water storage and distribution
- Water treatment, reticulation and drainage
- Water infrastructure development
- Water facilities management
- Water accounting and management services
- Specialist consultancy services
- Any activity likely to complement or enhance the above (such as hydro-electricity development).

These core activities are determined by shareholder requirements and/or competitive advantage according to SunWater's experience and skill base.[1] SunWater does not charge for water use as it is only responsible for the delivery of water subject to its Resource Operating Licences (ROLs), or (in some cases) Interim Resource Operating Licences (IROLs). ROLs and IROLs govern the water infrastructure and operating arrangements, water allocation, management and sharing and also water monitoring and reporting requirements for each WSS.

SunWater, in addition to maintaining the infrastructure assets and ensuring Water Allocation Entitlements (WAEs) delivery under the ROL/IROL's, is required to meet a number of compliance reporting requirements. While most compliance reporting is also required for the prioritisation of normal business operations (under the ROL/IROL's) there are some requirements that fall outside the scope of normal business operations. These range from the collection and management of customer data to reporting of hydrographical waterway flow rates to the Bureau of Meteorology and compliance reporting of usage data to the Murray-Darling Basin Authority.

SunWater's business is split into 62 Service Contracts where a Service Contract represents a largely independent service offering to customers. Service Contracts cover the full range of

[1] *Statement of Corporate Intent 2008-09* prepared by the directors and management of SunWater for the shareholding Ministers

services provided by SunWater including bulk water, distribution, hydro generation, commercial pipelines and water treatment facilities.

Only 30 of SunWater's 62 Service Contracts are included in this price setting process and of the total costs allocated to these 30 Service Contracts only a portion is of relevance to irrigators. The purpose of this engagement is to assess the efficiency and prudency of the costs allocated to irrigator Service Contracts over the 2012-2017 price setting period.

Table 3-1 and Table 3-2 below summarise the number and type of service contracts in SunWater.

Table 3-1 Service Contract Types

Service Contract Type	SunWater Service Contracts	Irrigator Service Contracts
Bulk Water	28 (includes 23 service contracts in WSS and 5 external service contracts)	22 (of the 23 WSS only Julius Dam does not service irrigators)
Irrigation Distribution	9	8 (relate to irrigators)
Commercial Pipeline	13	-
3rd Party Distribution	2	-
Hydro Generation	2	-
Water Treatment	3	-
Metering	1	-
Water Trader	1	-
Infrastructure Development Projects	2	-
Consulting Projects	1	-
TOTAL	**62**	**30**

Table 3-2 List of Service Contracts by Water Supply Scheme and External Delivery[2]

Water Supply Scheme and Other	Internal or External Infrastructure	Bulk Water	Distribution	Commercial Pipeline	3rd Party Distribution	Hydro Generation	Water Treatment	Metering	Development Projects	Water Trader	Consulting
Barker Barambah	Internal	Barker Barambah									
Bowen Broken	Internal	Bowen Broken		Collinsville Pipeline	Eungella Offtake Newlands Offtake						
Boyne River and Tarong	Internal	Boyne River & Tarong		Tarong Pipeline							
Bundaberg	Internal	Bundaberg	Bundaberg								
Burdekin-Haughton	Internal	Burdekin-Haughton	Burdekin	Burdekin Moranbah Pipeline			Burdekin Town Water				
Callide Valley	Internal	Callide Valley									
Chinchilla Weir	Internal	Chinchilla Weir									
Cunnamulla Weir	Internal	Cunnamulla Weir									
Dawson Valley	Internal	Dawson Valley	Dawson								
Eton	Internal	Eton	Eton								
Julius Dam	Internal	Julius Dam									
Lower Fitzroy	Internal	Lower Fitzroy		Stanwell Pipeline							
Lower Mary River	Internal	Lower Mary River	Lower Mary								
Macintyre Brook	Internal	Macintyre Brook									
Maranoa	Internal	Maranoa									
Mareeba-Dimbulah	Internal	Mareeba-Dimbulah	Mareeba			Tinaroo Hydro	Mitchuba Town Water				
Nogoa-Mackenzie	Internal	Nogoa-Mackenzie	Emerald	Blackwater Pipeline	Gregory Offtake Oaky Creek Offtake Saraji Offtake						
Pioneer River	Internal	Pioneer River									
Proserpine River	Internal	Proserpine River									
St George	Internal	St George	St George								
Three Moon Creek	Internal	Three Moon Creek									
Upper Burnett	Internal	Upper Burnett									
Upper Condamine	Internal	Upper Condamine									
Awoonga Callide	Internal			Awoonga Pipeline							
Goondicum Pipeline	Internal			Goondicum Pipeline (not commissioned)							
Burnett Water	External Subsidiary	Paradise Dam/Kiera Weir				Mini Hydro					
Northwest Pipeline	External Subsidiary			Northwest Pipeline							
Eungella Pipeline	External Subsidiary			Eungella Pipeline Eastern Pipeline Southern Pipeline							
External Service Contracts	External	4 Service Contracts	1 Service Contract	4 Service Contracts			1 Service Contract	1 Service Contract			
ID - Projects	Internal								ID - Projects		
ID - Feasibilities	Internal								ID - Feasibilities		
ID - Water Trader	Internal									ID - Water Trader	
ID - Consultancies	External										ID - Consultancies

[2] SAHA – Assessment of SunWater's Administration Costs

Table 3-3 provides a summary of the major operational metrics by SunWater WSS. In 2009, SunWater delivered 1.05 million ML of water across all WSS to some 4,900 customers, across regional Queensland. SunWater maintains and operates:

- 19 major dams
- 63 weirs and barrages
- 80 major pumping stations
- 2,500km of pipelines and open channels
- 730km of drains.[3]

Table 3-3 Asset and Customer Metrics by WSS[4]

Water Supply Scheme and Other	Internal or External Infrastructure	Major Dam Capacity '000 ML	Number of Customers	Customer Allocations '000 ML	Pipeline KM	No. of Pump Stations
Barker Barambah	Internal	136	172	34		
Bowen Broken	Internal	119	56	38	120	3
Boyne River and Tarong	Internal	204	155	44	95	3
Bundaberg	Internal	937	1,093	209		
Burdekin-Haughton	Internal	1,868	392	774	218	4
Callide Valley	Internal	151	139	24		
Chinchilla Weir	Internal	10	34	4		
Cunnamulla Weir	Internal	5	26	3		
Dawson Valley	Internal	67	153	58		
Eton	Internal	66	303	53		
Julius Dam	Internal	108	3	48		
Lower Fitzroy	Internal	36	24	27	25	1
Lower Mary River	Internal	17	187	26		
Macintyre Brook	Internal	70	96	25		
Maranoa	Internal	not listed	4	1		
Mareeba-Dimbulah	Internal	439	1,132	159		
Nogoa-Mackenzie	Internal	1,344	364	203	57	3
Pioneer River	Internal	165	22	76		
Proserpine River	Internal	491	91	60		
St George	Internal	100	160	75		
Three Moon Creek	Internal	89	92	15		
Upper Burnett	Internal	193	157	31		
Upper Condamine	Internal	106	101	34		
Awoonga Callide	Internal		29		53	3
Goondicum Pipeline	Internal				Not commissioned	Not commissioned
TOTALS		**6,720**	**4,985.0**	**2,020.3**	**568.0**	**17.0**

3.2 Provision of Services

SunWater's organisational structure has been developed along functional lines. A corporate group (largely based in Brisbane head office) provides HR, Finance, Legal, Procurement and IT support. An Infrastructure Management group is responsible for managing and maintaining SunWater's assets (dams, waterways, pumping stations, weirs) including managing customer water account data and water customers. An Infrastructure Development group is responsible for greenfield infrastructure developments. There is also a Strategy and Reporting Group and a Health, Safety and Environmental group reporting directly to the CEO.

SunWater's business is geographically diverse and is supported by a Brisbane Head Office and four major regional depots in Clare, Eton, Bundaberg and Toowoomba. Within each of the regions there are service centres and depots, including facilities in Ayr, Mareeba,

[3] Source: SunWater Annual Report 2008-09
[4] Source: SunWater Annual Report 2008-09 and SunWater website http://www.sunwater.com.au/management/management/pump-stations-and-pipelines

Emerald, Moranbah, Maryborough, Biloela, Mundubbera, Theodore, Goondiwindi and St George.[5]

SunWater's high level organisational structure is presented in Figure 3-1. This structure reflects the current business structure following the organisational changes undertaken recently.

Figure 3-1 SunWater Organisational Structure

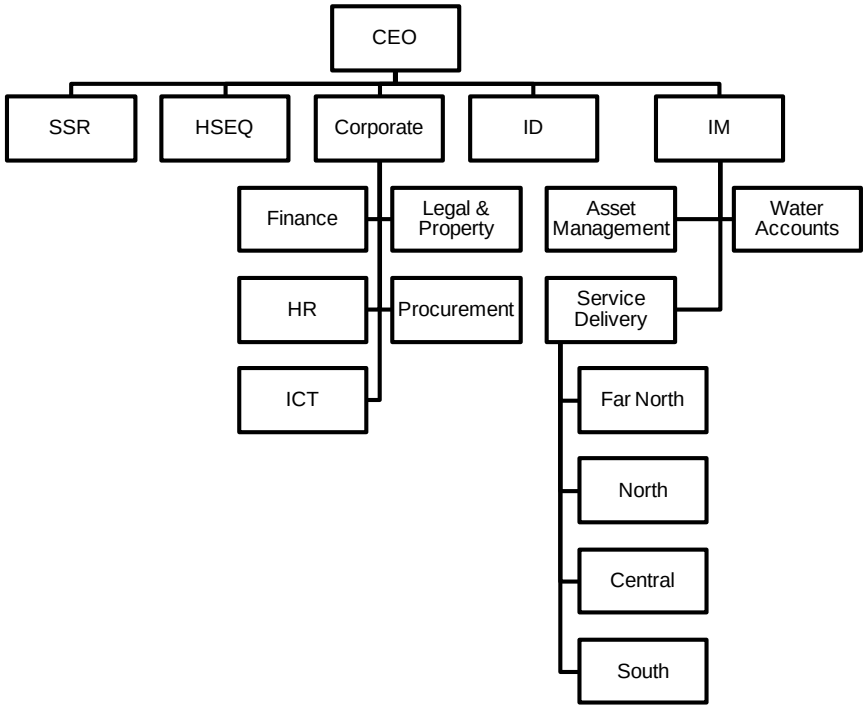


Table 3-4 provides a brief description of the functions of each business unit as well as the number of Full Time Equivalents (FTEs) as at 30 March 2011. A full description of the functions of each business unit is detailed in Section 3.4.

[5] Data from interview conducted on 17/8/10 with B Jeppessen, GM Infrastructure Management, SunWater, P McGahan, Strategy and Planning Manager, SunWater and M Judkins and P McCarthy from SAHA

Table 3-4 Summary of Business Units[6]

Business Unit	Function	FTE at March 2011
CEO Office	Oversight of the operations of SunWater. Includes the CEO and SunWater Board. The Internal Auditor also reports directly to the CEO	3.0
SSR – Strategy and Stakeholder Relations	Responsible for water planning, corporate relations and business strategy. SSR are also responsible for strategic external communications such as website and advertising.	12.0
HSEQ – Health, Safety, Environment & Quality	Responsible for all workplace health and safety, environmental issues and quality assurance and management	19.0
Corporate	Finance: Responsible for key activities of accounts payable and receivable, finance reporting and analysis, cash and funds management and budgeting and planning Human Resources: Responsible for workforce planning and strategy, recruitment and exit, training, leadership development and performance management, payroll services, remuneration benefits and advice and managing industrial relations ICT: Responsible for managing all network infrastructure including business systems analysis, infrastructure support (IT and phone), information governance (including hard copy and library function) and IT service desk Procurement: Undertaking major purchases for whole of SunWater (minor purchases undertaken by relevant cost centres) Legal and property: Responsible for legal issues and managing property portfolio such as housing and land-based issues	83.0
ID – Infrastructure Development	Responsible for all new infrastructure projects carried out both internally to SunWater and with external clients, project management and project proposals and business development.	95.2
IM – Infrastructure Management	Asset management: Responsible for strategic asset management (asset strategy and planning and asset performance and compliance) Water Accounts: Responsible for water accounting, ROP/ROL compliance, and customer service (enquiries, customer accounts and contracts). Service Delivery: Responsible for operations and maintenance of WSS	284.5
	TOTAL	**496.7**

[6] SunWater organisation charts as provided by SunWater; MAE exercise with senior SunWater management

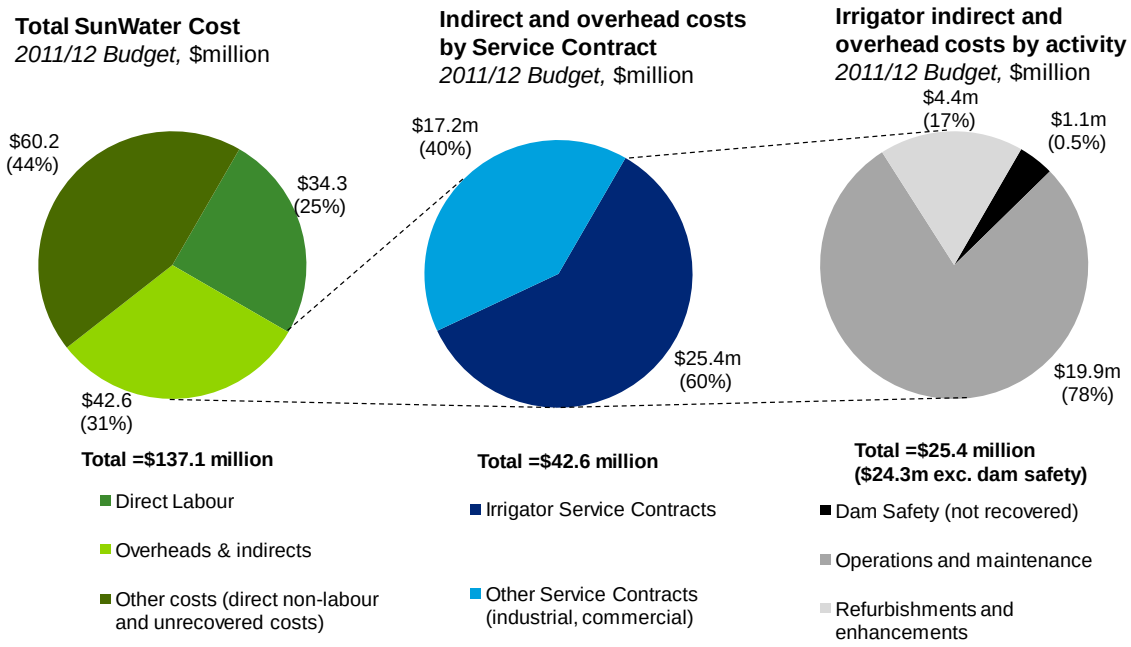
3.3 Adminstrative Costs Summary

A key aim of this report is to assess the reasonableness and efficiency of SunWater's administrative costs. In the following sections we provide a breakdown of these costs including the relative proportion of total administrative costs allocated to irrigation Service Contracts and the make-up of administrative costs split between local overhead, Brisbane overhead and indirect cost pools.

Figure 3-2 maps the proportion of total SunWater expenditure (in 2011/12 budget) to the WSS of relevance to irrigators. These costs apply to both irrigator's and non-irrigators. The chart shows 31% of SunWater's expenditure is classified as administrative and 60% of total administrative costs are allocated to SunWater's 30 irrigation WSS (equal to $25.4m in 2011/12).

Of the costs allocated to the 30 Irrigator WSS only $24.3m is to be recovered as $1.1m relates to dam safety upgrades and as per the Ministerial Directive this is not to be recovered through tariffs.

Figure 3-2 Allocation of total expenditure to Irrigator WSS



A detailed explanation of the allocation methodology is presented in Section 4, including an explanation of the different types of administrative costs.

Administration costs also include non-utilised labour cost of employees in Infrastructure Management and Infrastructure Development. Non-utilised labour refers to time spent doing timesheets and other activities related to their daily activities as well as any time spent in training, sick leave etc. that is not directly charged to a cost code. While there may be a component of down time included in non-utilised time this cannot be accurately identified. It is considered unusual to include non-utilised time in the administration cost bucket and inflates SunWater's administrative costs relative to its total costs. Typically, non-utilised time associated with operations would be considered as a loading to the operating cost, rather than an administration cost. We also do not consider aggregating and spreading the IM and ID non-utilised cost across all of SunWater's business accurately reflects where the cost (and related service) was incurred and should be allocated as close as possible to where it is incurred (preferably as a loading factor to the direct labour rate charged). This is discussed further in our recommendations.

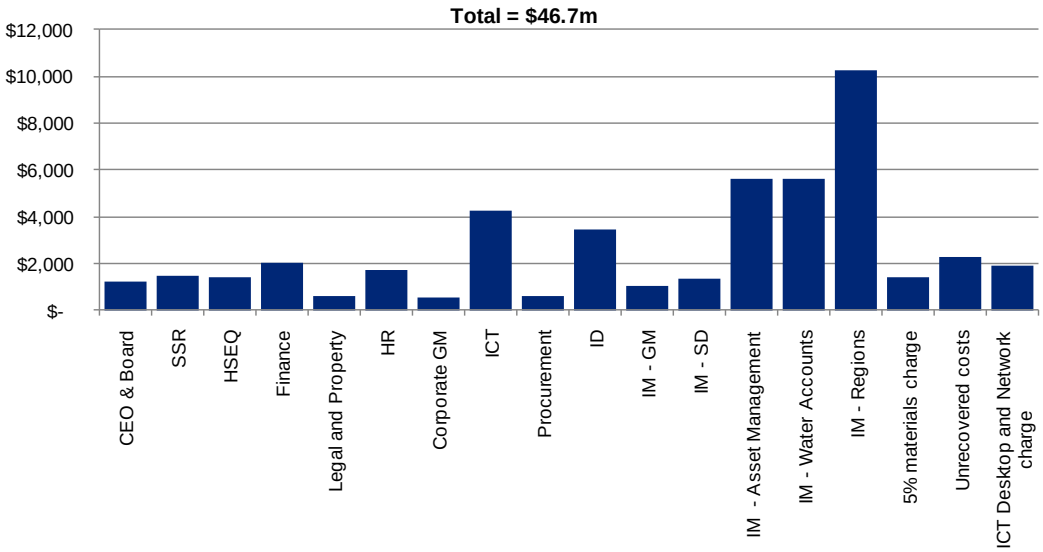
According to Figure 3-3, which shows SunWater's total administration costs of $46.7 million disaggregated by function, almost one quarter of SunWater overhead costs are coming from operations (IM Regions). Utilisation rates of workers in the regions (Infrastructure Management) are approximately 80 per cent (noting that utilisation does differ for each cost centre) and as a result approximately $4 million of non-utilised labour costs from the regional offices (in addition to the depot manager and schedulers) are included in the administration cost total. Note that we have not assessed the reasonableness of this non-utilised time as it is of more relevance to the engineering review.

SunWater review variance in its actual utilisation against forecasts on a quarterly basis, making adjustments depending on whether there is significant variation in actual utilisation. However, the definition of significant has not been provided to us. There is scope for this adjustment process to be made more formal, possibly through the introduction of a variance threshold to determine when adjustments are to be made.

Total administration costs of $46.7 million are reconciled with the $42.6 million of administration costs allocated to Service Contracts by subtracting unrecovered costs of $2.2 million and ICT desktop and network costs of $1.9 million. The latter represents costs incurred by ICT that remain in ICT's primary costs but are also charged to functions based on their number of desktops, which need to be removed from total administration costs to eliminate double counting. Unrecovered costs are SunWater's estimate of the extra costs (i.e. feasibility studies) it is incurring for future projects that may not be carried out.

Figure 3-3 demonstrates that the largest components of administration costs are ICT costs of $4.3 million and the Infrastructure Management Regions' costs of $10.3 million. The ICT costs are explained by the large fixed costs this function incurs in order to maintain and develop SunWater's key ICT systems, such as SAP. The significant costs in the regions reflects the fact that these costs include the non-utilised labour costs of the staff employed in these jurisdictions, as well as any non-labour costs such as materials that cannot be directly charged to contracts. The bulk of Infrastructure Management's staff are employed in the regions, including area operations managers, schedulers and administration support and technical employees. The chart also shows that the relatively minor contributors to total administration costs are Legal and Property, Corporate General Manager and Procurement.

Figure 3-3 Breakdown of Administrative Cost by Function (2011/12) $'000s



Note: In practice the total overhead pool is not allocated to Service Contracts function-by-function, but at an aggregate level. Before this allocation occurs, a number of adjustments take place, which reduce the total overhead pool considerably. This figure shows an approximation of total overhead and indirect costs at the functional level, achieved by "smoothing" these adjustments across the various functions. See section 4.3.2 for further explanation.

Our analysis has focused on the 2011/12 forecast as this is held largely constant over the 2012-17 price path other than to grow individual cost items by assumed inflation rates. We have reviewed these inflation rates separately (see section 3.6) and consider that they are reasonable.

3.4 Assessment of SunWater's Administrative Costs

In assessing the efficiency of SunWater's proposed administrative costs two discrete but complementary exercises were undertaken. The first was an MAE analysis and the second was benchmarking of specific SunWater activities (identified through the MAE) against an internal Deloitte database of international utilities, and also undertaking a local benchmarking exercise of SunWater distribution schemes against Pioneer Valley Water Board.

In this section we provide an overview of the analysis completed and present the results of both the benchmarking and MAE exercises. We note the combined MAE, case study and benchmarking exercises highlight possible areas of efficiency improvement, however they are indicative only.

3.4.1 Benchmarking Overview

We have completed a benchmarking exercise for SunWater's administrative functions where a comparable benchmarking group exists. The particular benchmarking database used in this exercise comprises 74 electricity, gas and mixed service utilities from the US. This was the best benchmark data on sub-functional (and even functional) level available. Other benchmarks from rural water utilities in Australia can be obtained from the National Performance Report (NPR) 2008–09 of rural water utilities, however the data is not granular enough to be useful in an efficiency exercise, only providing a figure for total administration costs as a proportion of total operating costs. The NPR benchmarking is provided in Table 3-10.

We have based our benchmarks on labour (e.g. number of FTEs per 100 employees) as opposed to total cost or asset value or any number of other metrics. This has been to avoid issues associated with different currencies, timing issues and inherently different pay and cost environments in our benchmark group. While our database allows a full range of metrics

to be calculated (including benchmarks per customer, per dollar of cost, per unit output) per employees is the best denominator to use for administrative functions as they are largely servicing internal customers. Where this is not the case we have identified the relative strength of the benchmark to be relied upon.

The Deloitte utility database is considered appropriate for the following reasons:

- The large number of utilities in the dataset allows a good distribution to benchmark against
- The database has detailed data down to the sub-functional level for administration costs. There is no publicly available information that has data for any type of utility down to the functional let alone sub-functional level. The most detailed data for utilities in Australia is the National Performance Report which has data for total administration costs and for total operating costs
- Using FTEs as the comparator, removes differences in remuneration scales and also differences in foreign exchange and timing issues
- The utilities in the benchmark database are reasonable comparators for SunWater as the utilities:
    - Provide essential services, therefore are often regulated to ensure adequate service levels and prudent expenditure – and may have significant compliance requirements
    - Are network utilities with large asset bases and large areas of land (easements) to manage
    - Have bulk supply and distribution components of the business
    - Are generally monopoly services with services to defined geographic region
    - Have similar revenue cycles with meter reading and billing carried out on a regular basis (typically quarterly), therefore similar cash flows patterns
    - Have similar cycles of expenditure with operating costs following seasonal patterns (peak and low seasons), and capital expenditure being 'lumpy'
    - Need similar finance and treasury skills, for instance have similar capital structures such as gearing ratios and cash flow management issues
    - Have similar customer interfaces of call centres and websites, and broadly similar issues to deal with (faults, emergencies, billing)
    - Have similar IT applications and therefore IT skills
    - Have similar professional skill base of employees with engineers and maintenance crews
- The benchmark utilities also have some important key differences that should be kept in mind in any comparison exercise, such as:
    - Many utilities have a combination of residential and commercial customers (extent not differentiated in database profile), whereas SunWater only has bulk customers (being irrigators, mining companies and urban bulk supply)
    - Utilities in the database typically have much larger FTEs than SunWater, therefore economies of scale could be expected by the benchmark utilities. However it is noted that SunWater is still a large organisation with 497 employees, and above this scale efficiencies diminish – therefore the economies of scale would not be as pronounced as say a small 100 employee utility compared with a utility with 1000 employees.

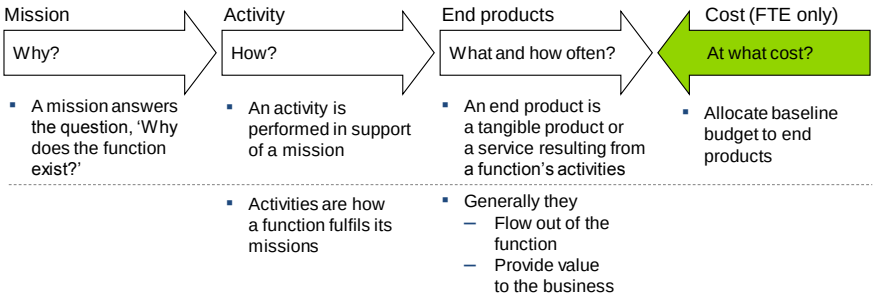
3.4.2 MAE Overview

The MAE analysis is a 'bottom up', 'needs-based' assessment of costs on a functional level, breaking down each function into sub-functions (missions), activities and end-products (or deliverables). The purpose of the MAE analysis is to gather specific information on how employees spend their time and to understand what costs within a function (labour and non labour) are directed to which activities.

A two-fold assessment is then conducted on these activities firstly in terms of whether they are 'core' or 'non-core' to the business, and secondly whether the dedicated labour is appropriate. A core activity is any activity where the business could not carry out its services if the activity were removed (e.g. compliance requirements). A non-core activity is the opposite, where the business could continue to carry out its services if the activity were removed (e.g. supporting activities).

The MAE analysis aims to break down the functions of the business into specific missions, activities and end-products. The below chart illustrates the purpose of the different aspects of the MAE analysis.

Figure 3-4 MAE analysis



In terms of approach, we have carried out a streamlined version of the MAE exercise. MAEs can vary from detailed assessments (involving a large number of employees completing questionnaires about how they spend their time), to streamlined assessments which involve conducting workshops with appropriate persons from each function. The streamlined approach was the most appropriate for assessing the overall efficiency of SunWater administration costs as it identifies key areas of efficiency opportunity in the timeframe available.

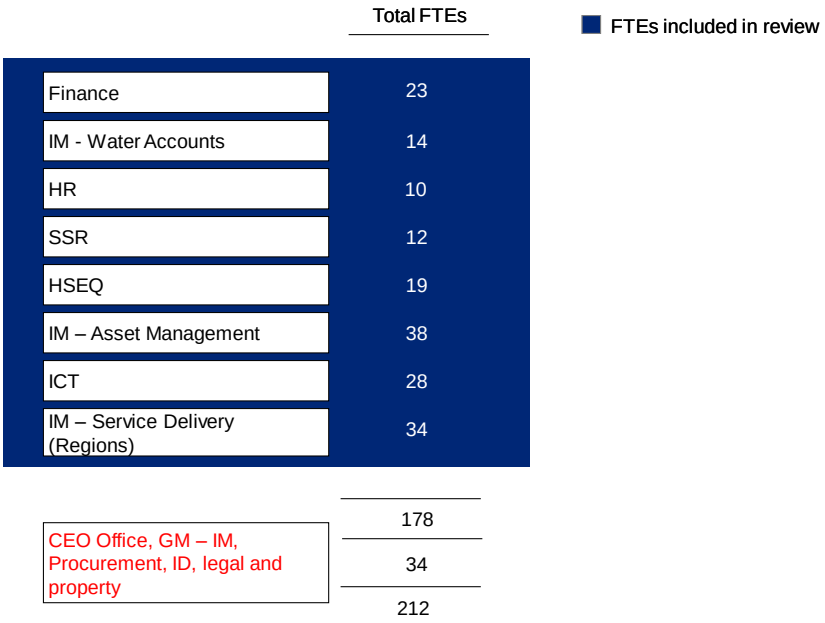
Figure 3-5 Detailed and streamlined MAE

	Detailed MAEs	Streamlined MAEs
Scope	▪ Entire Function	▪ Areas where inefficiency is suspected (ie usually ~75% of function)—but must correspond to a clearly defined cost base—such as a sub-function service
Depth	▪ Detailed—i.e. all end products (e.g. list of all management reports—(as separate end products) individually	▪ Not detailed. End products can be grouped (e.g. groups of managerial reports with similar purpose = 1 end product); can increase detail later as necessary
Data required	▪ Interviews of individual staff ▪ Very detailed time allocations (timesheets)	▪ Estimation/quick interviews of management for time allocation ▪ Sanity check ▪ Interview supervisor for the whole department rather than individual interviews
Accuracy required	▪ High accuracy (±5%)	▪ ±10–20% ▪ Total value of all end products must add to 100% of baseline area covered

In our MAE exercise we have ensured a wide coverage of SunWater functions. Of the total 212 SunWater staff in administration functions, 178 roles (or 84% of the centralised functions) were included in the MAE analysis. Key functions excluded from the exercise were

the CEO office, GM for Infrastructure Management (IM), Procurement and Infrastructure Development (ID) and Legal and Property. These functions were excluded based on their relatively small size. The below chart provides the scope of the MAE analysis.

Figure 3-6 Scope of SunWater MAE analysis



The information attained through the MAE analysis for the above SunWater functions was acquired through a series of workshops with key staff from each function. Data was collected in a consistent template. The functions and key staff interviewed are provided in the below table:

Table 3-5 SunWater staff interviewed for MAE analysis

Function	Key staff members interviewed
Finance	Geoff White, Margaret Barton, John Thornton
Human Resources	June Dous
Information Communication Technology (ICT)	Mike Minter
Strategy and Stakeholder Relations (SSR)	Tom Vanderbyl, Peter McGahan
Health and Safety, Environment and Quality (HSEQ)	Tom Vanderbyl
Asset Management (AM)	Rob Keogh, Phil Miller, Barry Jeppesen
Water Accounts	Donna Hodgon, Petrina Douglas
Service Delivery – Regions *(Admin component only)*	Phil Miller, Barry Jeppesen

3.4.3 Benchmarking and MAE Results

This section presents the results of the benchmarking and MAE exercises. Our analysis includes assessment of the following functions:

- Finance
- HR

- ICT
- Water Accounts
- Strategy and Stakeholder Relations (SSR)
- Health, Safety, Environment and Quality (HSEQ)
- Asset Management
- Service Delivery – Regions

Table 3-6 below summarises the overall findings of the benchmarking and MAE analysis for the administrative functions.

In our draft report, our analysis indicated a potential efficiency opportunity of 6.15 to 7.15 FTEs (occurring in Finance, HR, ICT and HSEQ), which represents a range of 3.6% - 4.1% of the FTE's included in the review (MAE analysis and benchmarking).

We held a further one day workshop with SunWater and the QCA, subsequent to the draft report, to discuss and assess the logic used in arriving at efficiency opportunities in each of the functions. Following this we revised our identified efficiency opportunities to 4.15 to 5.15 FTEs, which represents a range of 2.3% - 2.9% of the FTE's included in the review.

Based on a median SunWater salary of $98,582 (for the forecast year 2012), this translates to a potential saving of $409,115 to $507,697. As this saving includes the statutory on-costs associated with employees, such as superannuation payments, it represents a comprehensive view of the potential efficiency opportunities faced by SunWater.

Note that the efficiency opportunities identified through our MAE analysis are in addition to the efficiency savings made as a result of SLFI, as the FTE structure used as the basis for our analysis was a post-SLFI structure.

Table 3-6 Efficiency Opportunities

SunWater Administration functions

Total FTE = 178.4
Non core FTE = 7 (3.9%)

Function	Total FTE	Non core	Comments on FTE savings (draft report)	Comments on revised savings	FTE saving *(draft report)*	Revised FTE saving
Finance	23	1.2	▪ Accounts payable	▪ No longer applicable	0.5	–
			▪ Manual payment methods	▪ Maintained	0.25	0.25
			▪ Reporting	▪ Maintained	1.0	1.0
			▪ Facilities management	▪ No longer applicable	0.5	–
			▪ Fuel card management	▪ Maintained	0.1	0.1
HR	10	1.8	▪ Recruitment and exit	▪ Maintained	0.5 –1.0	0.5 –1.0
			▪ Industrial Relations	▪ No longer applicable	0.5	–
			▪ Payroll	▪ Maintained	0.5	0.5
Asset Management	38	0.27	▪ No opportunities identified	▪ Maintained	–	–
ICT	28	0.7	▪ Service Desk	▪ No longer applicable	0.5	–
			▪ Library and hard file management	▪ Maintained	0.3	0.3
			▪ Information and strategic advice	▪ Maintained	0.5	0.5
IM service delivery	34.5	0	▪ No opportunities identified	▪ Maintained	–	–
Water Accounts	13.9	0.03	▪ No opportunities identified	▪ Maintained	–	–
SSR	12	1.91	▪ No opportunities identified	▪ Maintained	–	–
HSEQ	19	1.1	▪ Training provision	▪ Maintained	0.5	0.5 –1.0
			▪ HSEQ internal comms	▪ Maintained	0.5	0.5 –1.0
TOTAL	**178.4**	**7**			**6.15 – 7.15**	**4.15 – 5.15**

Each of the individual functions is addressed below.

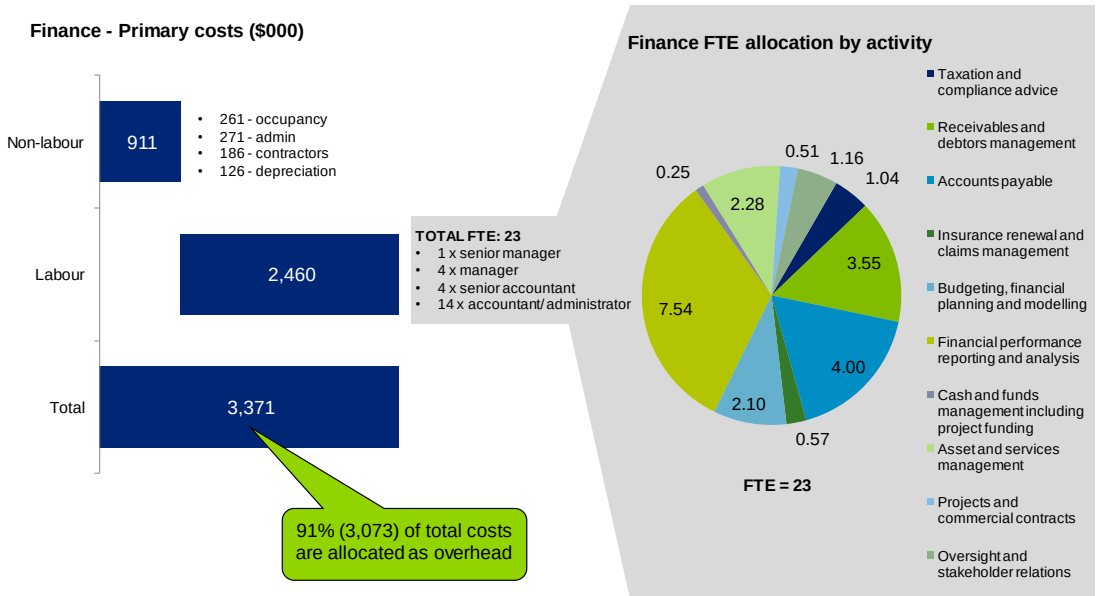
Note: In the graphical presentation of the benchmark results, the comparable group for each sub function is displayed in quartiles, with an even number of utilities in each of the four quartiles. The top quartile represents the 25% utilities that have the lowest number of FTE's for that particular sub-function, with the fourth quartile representing the 25% of utilities that have the highest number of FTE's. The mid-point between the second and third quartile is the median.

In terms of our analysis, the second quartile (second from the left) is the target quartile for SunWater representing (in most cases) an appropriate level of resourcing for the function. A result in the top quartile (far left) may represent an under-resourced function (potentially corresponding to compromised service levels or quality of work). A result in the third and fourth quartiles (those to the right of the median), represents an over-resourced function and should be reviewed for efficiency.

Finance

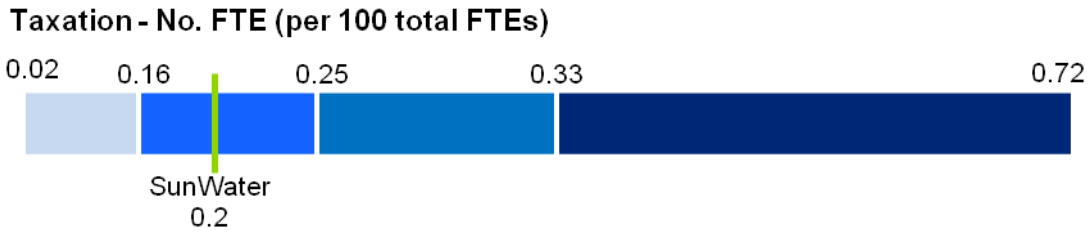
SunWater's finance function includes major activities of accounts payable and receivable, finance reporting and analysis and cash and funds management. The MAE analysis indicated that of the 23 FTEs in the finance function the majority of employee time was spent on financial performance reporting and analysis (equivalent to 7.5 FTEs). The majority of Finance's costs were labour related with only 27% being non-labour (mostly made up of occupancy and administration costs). Administration costs include audit fees, office consumables, freight and post and desktop service charges among other items. 91% of finance total costs are allocated as overhead costs.

Figure 3-7 Finance MAE

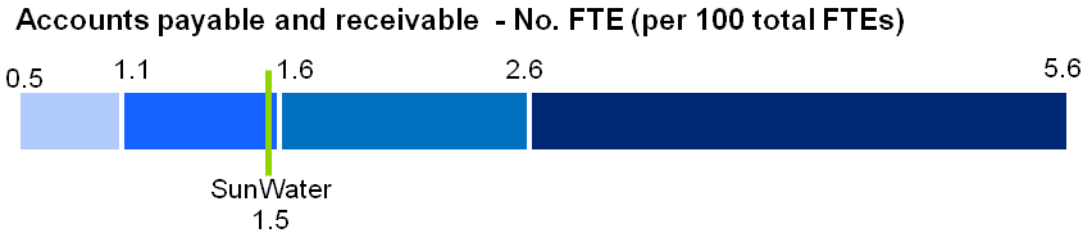


We benchmarked the finance sub functions of taxation, accounts payable and receivable, insurance claims and renewal, budgeting and finance planning, cash and funds management and financial analysis. Compared to the sample group, five out of the six sub-functions were within the top two quartiles however financial analysis and reporting was in the fourth quartile.

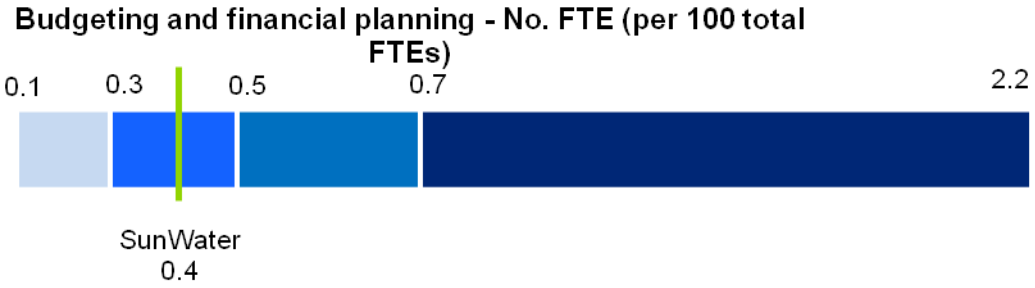
Figure 3-8 Finance Benchmarks



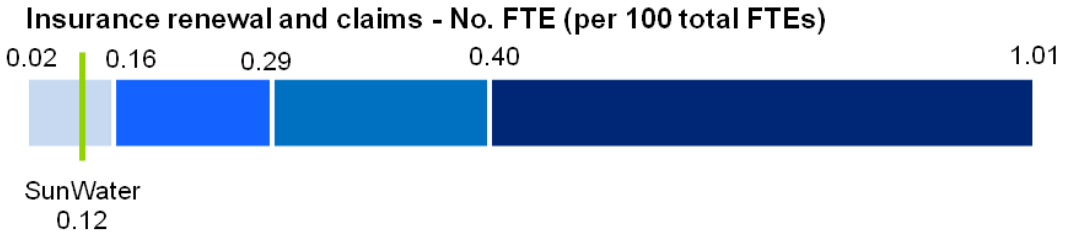
- Reasonable benchmark as FTE is a proxy for the size of the business which is a key driver for taxation effort



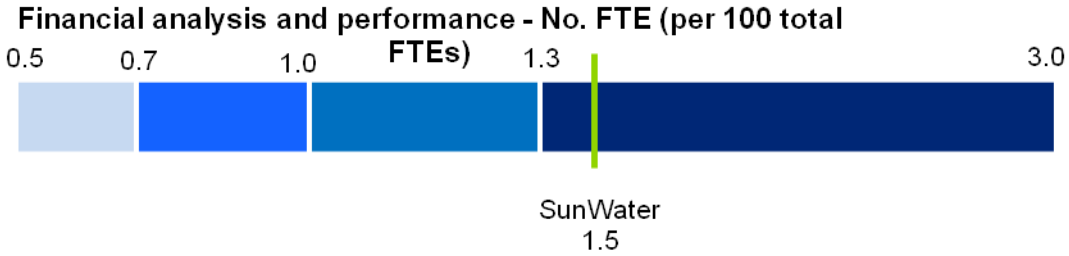
- Reasonable benchmark as FTE is a proxy for the size of the business which is a key driver of transactions



- Reasonable benchmark as FTE is a proxy for the size and complexity of the business which is the key driver for budgeting/planning.



- Weak benchmark as FTE is only a partial driver of insurance. Most insurance relates to asset value as this is the largest proportion of insurance



- Reasonable benchmark as FTE is a proxy for the size of the business which is the key driver for analysis and reporting

The MAE exercise and benchmarking indicate that there is opportunity to reduce finance costs by a potential of 1.35 FTE (revised from 2.35 FTE in our draft report). Efficiency opportunities were identified in customer payment methods, monthly and one-off reporting, and fuel card management.

Table 3-7 Efficiency Opportunities – Finance

Finance

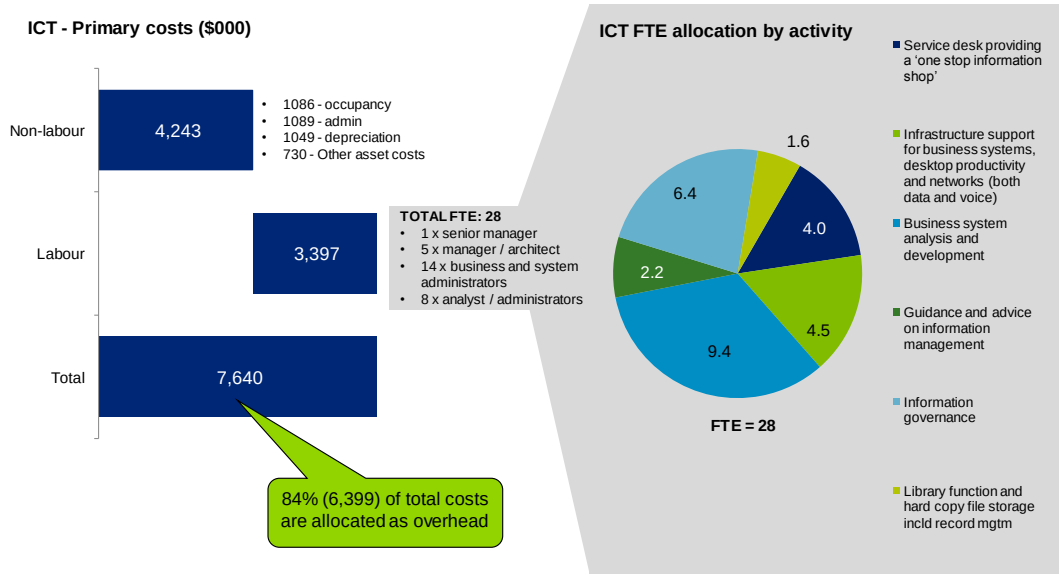
Total FTE = 23
Non core FTE = 1.2 (5%)

Efficiency opportunities *(from draft report)*	Comments on revised FTE savings	FTE saving *(draft report)*	Revised FTE saving
▪ Potential to review Accounts payable and debt collection for efficiency	▪ Debt collection and accounts payable is high due to many small customers, hardship customers and exceptional circumstances (drought and floods). This involves restructuring debt and managing alternative payment options. Benchmark in second quartile, therefore initial potential saving is no longer applicable.	0.5	–
▪ Opportunity to transition customers away from manual payments (i.e. High proportion of cheques) to lower cost payment methods	▪ SW has already attempted to transition customers to lower cost methods (such as B-pay), however customers have chosen to remain paying by cheque, therefore FTE's are as 'lean' as possible. This still represents an inefficiency therefore 0.25 FTE remains.	0.25	0.25
▪ Potential to review and improve monthly reporting, one-off report requests and queries (approx 4.2 FTE's). This reporting is included in the financial analysis and performance benchmark where SunWater appeared in the fourth quartile	▪ SW has complexities that exist due to being a GOC, shareholder who is also a regulator, and reporting of tridata (Govt requirement). SW is implementing a Business Intelligence which will impact on time spent reporting. Efficiency still exists.	1.0	1.0
▪ Potential to review facilities management for efficiency in terms of overlap with legal and property group	▪ Initial efficiency was based on perceived overlap with Legal and Property group. However Legal and Property write contracts and pay rates while finance look for new buildings and are responsible for day to day running of building. SW also have broad geographic spread, meaning higher property demands. Efficiency no longer applicable.	0.5	–
▪ Potential to review fuel card management as FTE appears high	▪ No change to efficiency opportunity.	0.1	0.1
	TOTAL	**2.35**	**1.35**

ICT

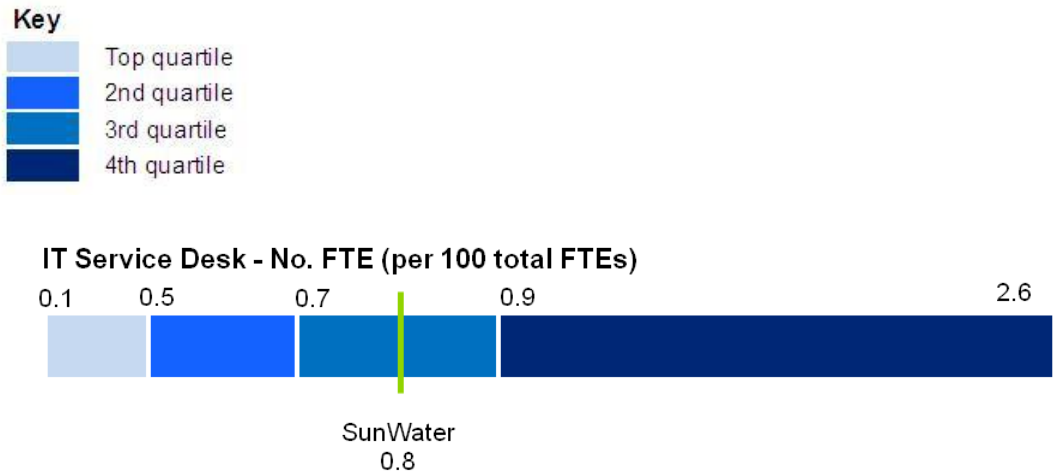
SunWater's ICT function includes major activities of business systems analysis, infrastructure support, information governance and service desk. The MAE analysis indicated that of the 28 FTEs in the ICT function the majority of employee time was spent on business system analysis and development (equivalent to 9.4 FTEs). ICT's costs had a high non-labour component (55%) compared to other business functions. The non-labour component was made up of items such as wide area network charges, software maintenance and hardware, application licence costs, and occupancy (for Brisbane office and offsite file storage). 84% of ICT costs are allocated as overhead.

Figure 3-9 ICT primary costs and MAE

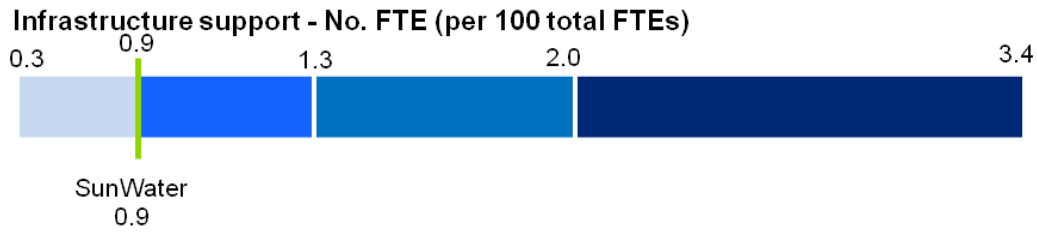


We benchmarked the ICT sub functions of service desk, infrastructure support and business systems analysis and development. Compared to the sample group SunWater's service desk and business systems support (including SWIMs) were in the third quartile. Infrastructure support however was at the bottom of the top quartile. In SunWater's case, however, Service Desk and Infrastructure Support should be combined to accurately reflect the cross-skilling and shared roles between the activities. Once combined, SunWater lands in the second quartile.

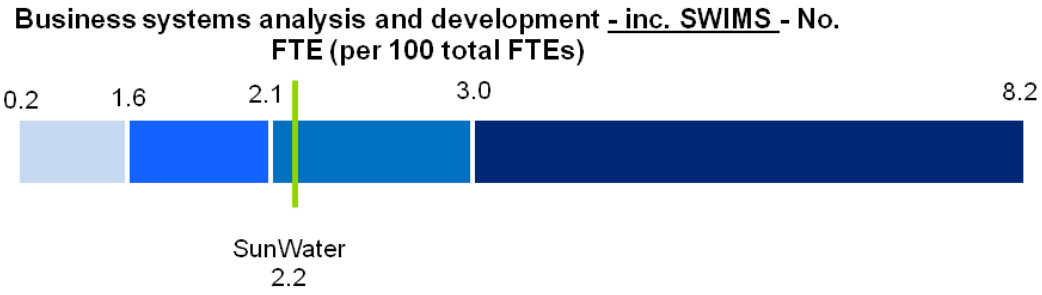
Figure 3-10 ICT Benchmarks



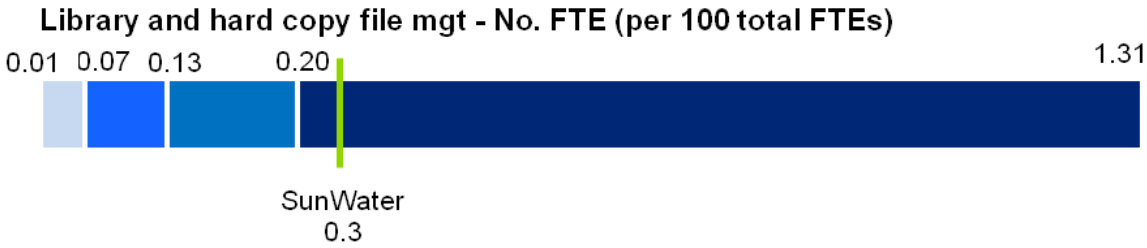
- Strong benchmark as employees is a key driver of technical support that is required



- Reasonable benchmark as FTE is a proxy for the size and complexity of the business which is the driver for infrastructure support



- Good benchmark as FTE is a proxy for the size and complexity of the business which is the key driver for number and size of business systems/modules
- Note for this benchmark the SWIMs business systems analysis, which is undertaken by the Water Accounts function (not ICT), is included to represent business-wide effort in this area.



- Good benchmark as number of FTE's would drive demand for document management
- Note SunWater has commented that hard copy file management services are higher due to the age of a number of assets within the organisation, the design responsibilities of SunWater, the geographic dispersal of operating locations and the recent centralisation of record keeping services.

The MAE exercise and benchmarking indicate that there is potential opportunity to reduce ICT costs by 0.8 FTE (revised from 1.3 in draft report). Efficiency opportunities were identified in the library and hard copy file management, and information discovery and strategic guidance.

Table 3-8 Efficiency Opportunities – ICT

ICT

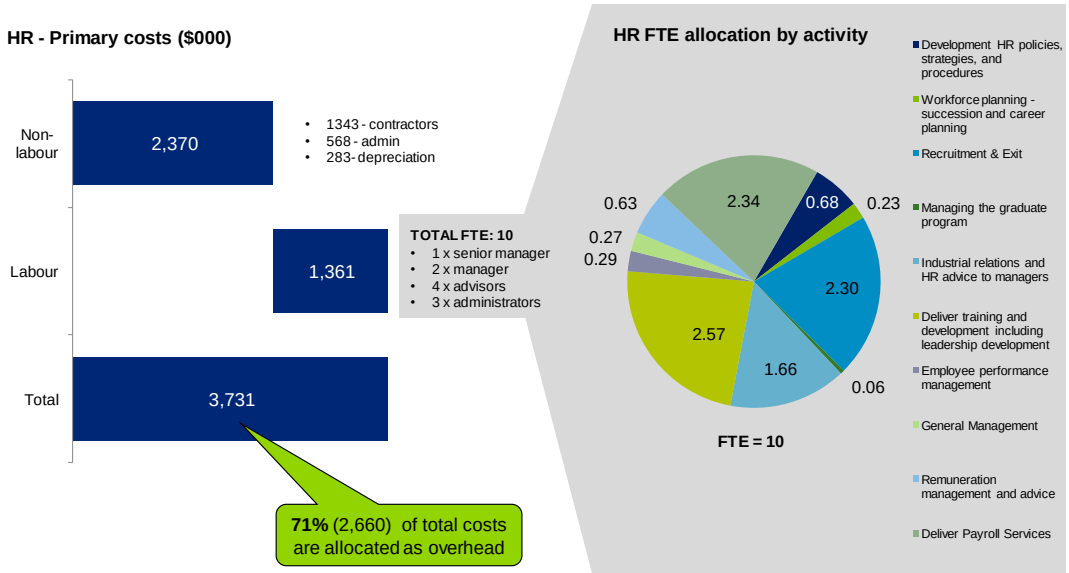
Total FTE = 28
Non core FTE = 0.7 (2.5%)

Efficiency opportunities *(from draft report)*	Comments on revised FTE savings	FTE saving *(draft report)*	Revised FTE saving
▪ Compared to benchmark Service Desk seems high – potential to review Technical support for efficiency	▪ The Service Desk and Infrastructure Support benchmark should be combined, as Service Desk staff undertake infrastructure support activities. The combined benchmark would then land in second quartile which is the target. FTE saving is therefore no longer valid.	0.5	–
▪ Compared to benchmark, library and hard-copy file management was in fourth quartile. Potential to review online library services with overlap with Hummingbird (document mgt system) for efficiency gains	▪ SW commented that reduction of admin support in regions has led to greater requirements for IT to manage hard copies. A transition is underway to move towards soft copies, however soft copies will increase. The centralisation should result in efficiency for hard copy management, and transition to soft copies should also reduce time spent. Benchmark in fourth quartile. Efficiency opportunity still exists.	0.3	0.3
▪ ICT information discovery services and strategic guidance are non-core activities and could be reviewed for efficiency. Coupled with SSR, information services seems high. Operational support and training as has 1 FTE dedicated to it which seems high.	▪ There is a specific component in ICT information discovery that is a compliance requirement (for RTI requests). However RTI was not part of initial efficiency gain., therefore these still represent non-core activities and therefore efficiency opportunity remains the same.	0.5	0.5
	TOTAL	**1.3**	**0.8**

HR

SunWater's HR function includes major activities of workforce planning, recruitment and exit, training and leadership development and payroll services. HR's costs had a high non-labour component (63% of total costs) compared to other business functions. The largest non-labour component was for contractors which were similar to total labour costs. 71% of HR costs are allocated as overhead.

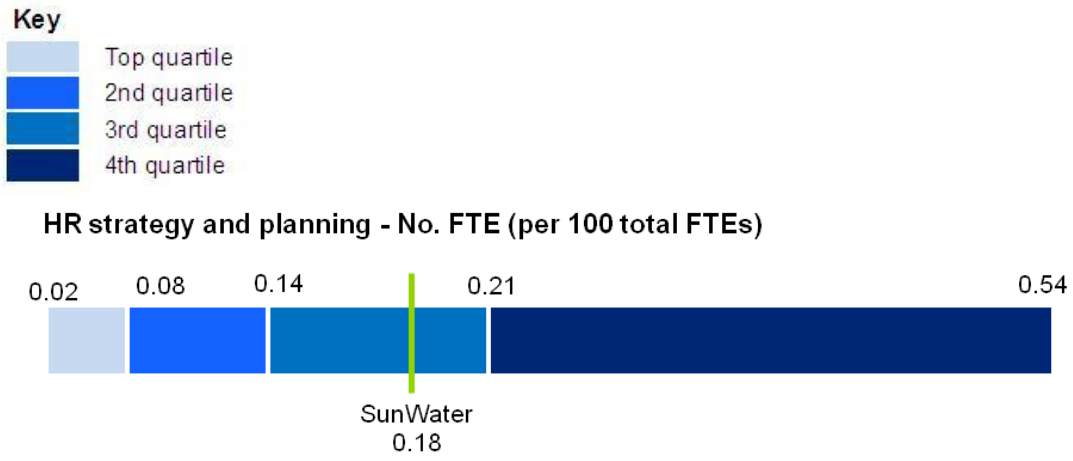
Figure 3-11 HR primary costs and MAE



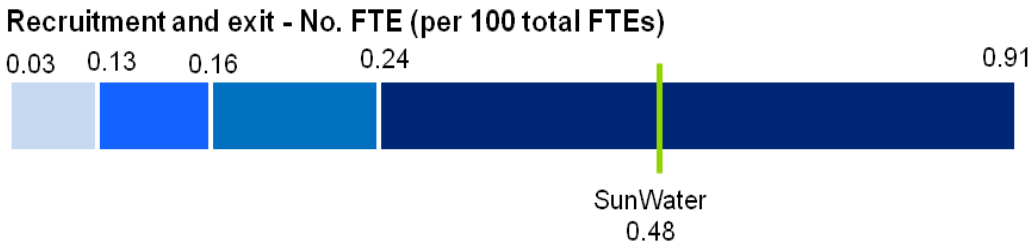
We benchmarked the HR sub functions of strategy and planning, recruitment and exit, training and development, industrial relations, remuneration management and advice and payroll. Compared to the sample benchmark group three of the six sub-functions were in the fourth quartile and two were in the third quartile. SunWater's remuneration management advice was above all other benchmark utilities. These HR benchmarks are considered strong as FTE is the major driver of HR effort.

One potential reason for benchmarking results being in the third and fourth quartiles is that HR has largely fixed costs where labour may not necessarily increase commensurate with the size of the utility. SunWater is the smallest utility (in terms of FTE) of the benchmark sample meaning that other utilities will have a scale advantage. However, SunWater does have high contractor costs which are not factored into the benchmark.

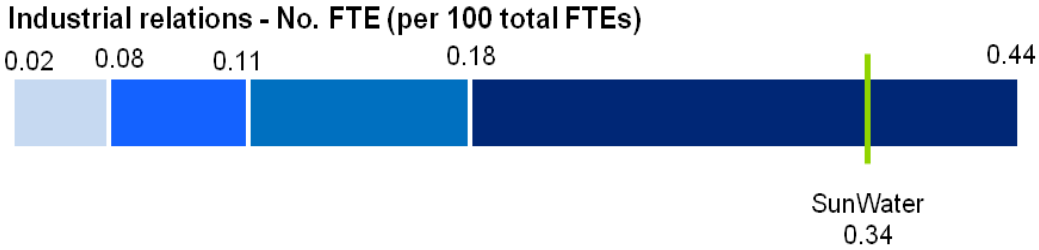
Figure 3-12 HR Benchmarks



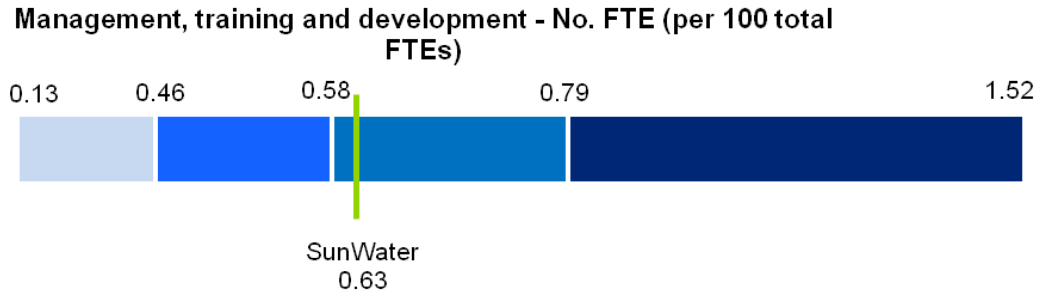
- Strong benchmark as HR strategy and planning is driven by number of FTEs



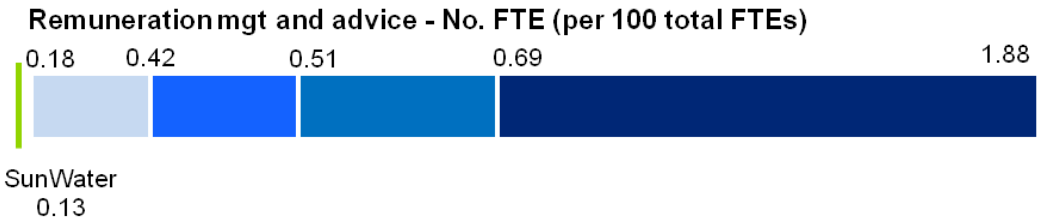
- Strong benchmark as recruitment and exit is driven by number of FTE's



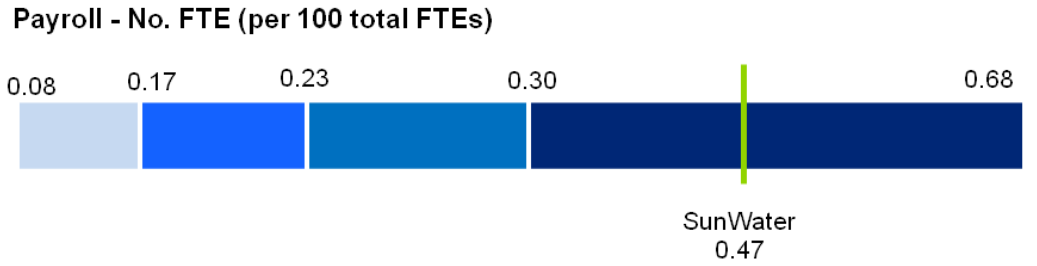
- Strong benchmark as industrial relations effort is driven by number of FTE's



- Very strong benchmark as training and development is driven by number of FTE's



- Strong benchmark as remuneration management and advice is driven by number of FTE's



- Strong benchmark as payroll is driven by number of FTE's

The MAE exercise and benchmarking indicate that there is opportunity to reduce HR costs by a potential of 1.0 – 1.5 FTE (changed from 1.5 – 2.0 FTE in the draft report). Efficiency opportunities were identified in the recruitment and exit and payroll activities.

Table 3-9 Efficiency Opportunities – HR

HR

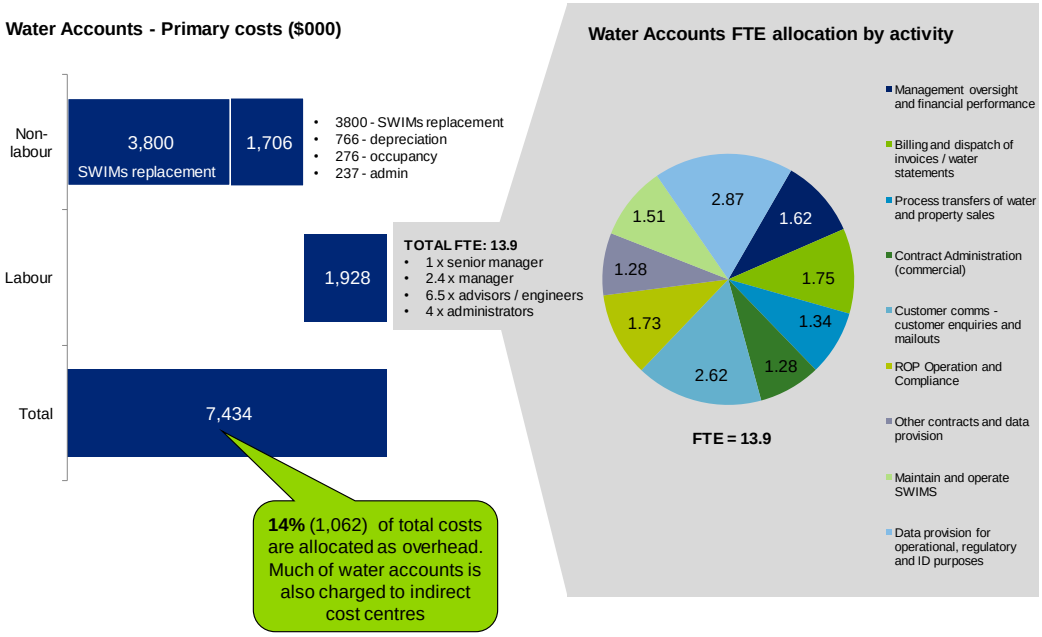
Total FTE = 10
Non core FTE = 1.8 (16%)

Efficiency opportunities *(from draft report)*	Comments on revised FTE savings	FTE saving *(draft report)*	Revised FTE saving
▪ Recruitment and exit landed in the fourth quartile of benchmark sample. There appears to be a number of potential efficiencies such as; reduce time spent reviewing and developing role descriptions; online induction and pre-employment; updating org charts; and HR admin	▪ Comment from SW was that recruitment effort has increased since centralisation of the business (e.g. handling of regional recruitment). There is also currently high turnover (15-20%) due to competition with mining sector. Normal turnover would be 10-12%. This is valid and would increase HR effort, however the benchmark was already conservative. Assuming 40% extra effort is required on recruitment, then SW should benchmark 0.22 FTE (i.e. 40% increase from median of 0.16). SW currently benchmarks at 0.48 FTE. Efficiency of 1.0 is therefore accurate.	0.5 - 1.0	0.5 - 1.0
▪ Industrial relations landed in the fourth quartile of benchmark sample. A few potential efficiencies exist including time spent on Enterprise Agreement and IR strategies, IR advice to Managers	▪ Comment from SW is that the IR process in Australia is highly unionised , very regulated and therefore labour-intensive, which contrasts with international IR regimes which may be less regulated. One EBA for everyone but has to be 'ticked off' by each union, resulting in multiple awards and increased IR effort from HR. While a direct comparison is not available, we have verified that the United States have a very different and less unionised IR environment, and therefore is not a comparable in terms of IR. Initial efficiency opportunity no longer valid.	0.5	–
▪ Payroll landed in the fourth quartile of benchmark sample. Time sheeting process seems to be labour intensive as does facilitating the payroll process which is automated. Potential or efficiency.	▪ Comment from SW was that manual checking of timesheets is required and is labour intensive. This confirms efficiency opportunity of manual checking versus being automated. Efficiency opportunity remains unchanged.	0.5	0.5
	TOTAL	**1.5 – 2.0**	**1.0 – 1.5**

Water Accounts

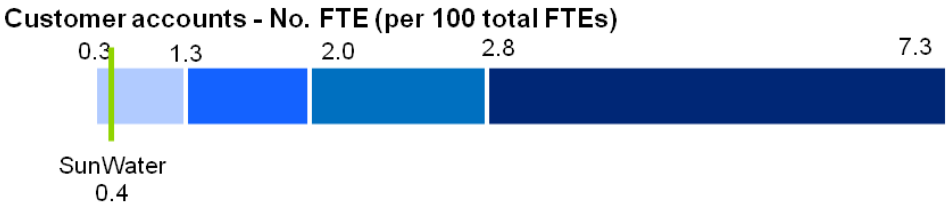
SunWater's Water Accounts function includes major activities of customer call centre/enquires, ROP compliance, customer accounts and data provision for a total of 13.9 FTEs. Water Accounts non-labour costs include the SWIMs replacement project ($3.8m in 2012). Other major non-labour components were for depreciation, occupancy and administration. 14% of Water Accounts costs are allocated as overhead. There are also a large proportion of costs that are allocated indirectly.

Figure 3-13 Water Accounts primary costs and MAE

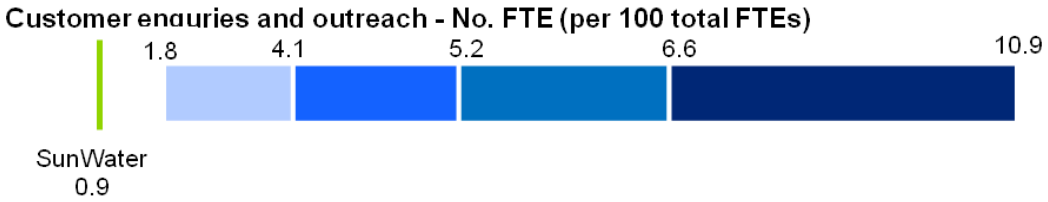


We benchmarked the Water Accounts sub functions of customer accounts, customer enquiries and outreach (or external comms) and management of customer service (Water Accounts) team. Compared to the sample benchmark group two of the three sub functions were in the top quartile and one was in the second quartile. The first two of these Water Accounts benchmarks however are considered weak as customers (rather than FTE) is the major driver of effort. As discussed earlier, customers were not able to be used as a benchmark as many of the benchmark utilities have a combination of both domestic and commercial customers. SunWater has predominantly commercial (or bulk) customers.

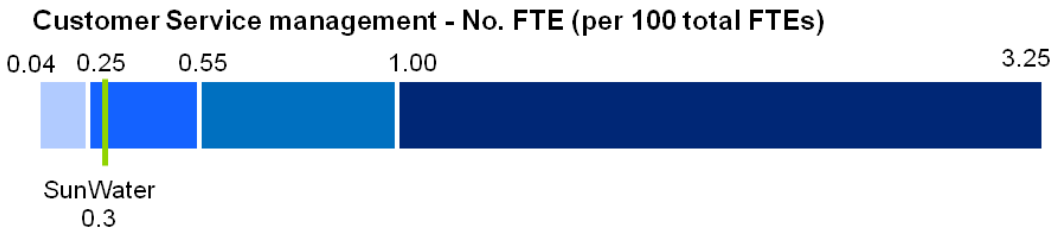
Figure 3-14 Water Accounts Benchmarks



- Weak benchmark as main driver of customer accounts is number of customers



- Weak benchmark as main driver of enquires and external communications is number of customers
- The external communications activities from SSR were included in this benchmark



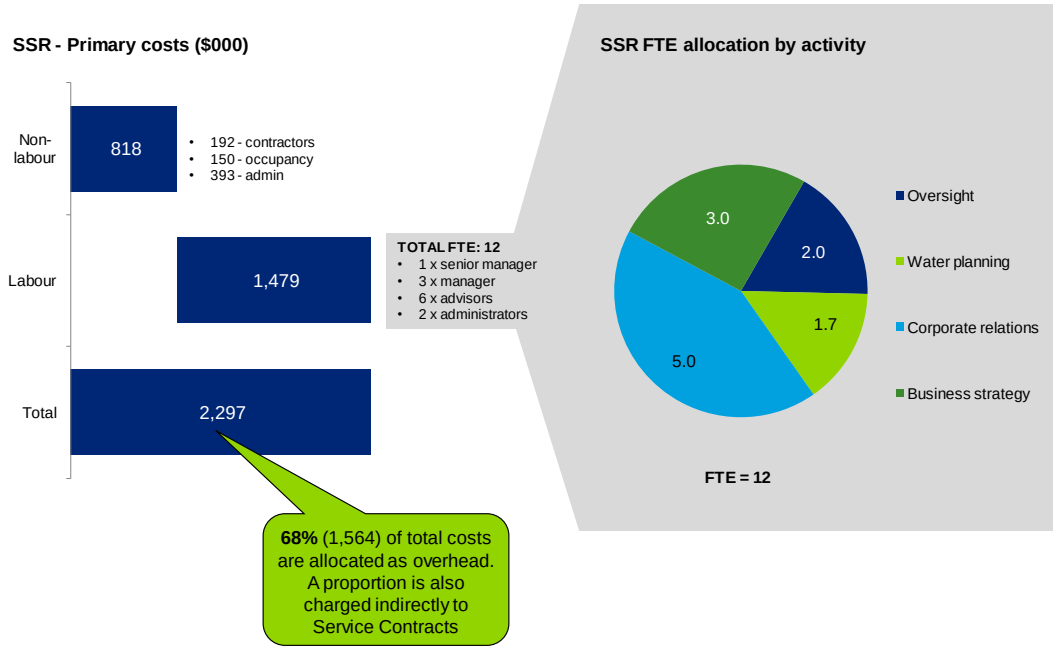
- Reasonable benchmark as management of the customer service team is driven by the number of FTEs within in the team

The MAE exercise and benchmarking indicate that there is little opportunity to reduce Water Accounts costs. It should be noted however that the SWIMs replacement is a major project that has been identified by SunWater to drive further efficiency in this function. Currently 1.5 FTE is dedicated to maintaining and operating SWIMs, therefore we would expect to see efficiency improvements once the SWIMs replacement project is commissioned in three years. This may also drive improvements for other sub-functions of Water Accounts that rely heavily on SWIMs, such as ROP compliance and process transfers of water and property sales.

SSR

SunWater's Strategic and Stakeholder Relations (SSR) function includes major activities of water planning, corporate relations and business strategy for a total of 12 FTEs. The majority of SSR costs consist of labour with 36% in non labour costs. Major non-labour components were administration, contractors and occupancy. 68% of SSR costs are allocated as overhead. SSR also charges some time indirectly to Service Contracts.

Figure 3-15 SSR primary costs and MAE

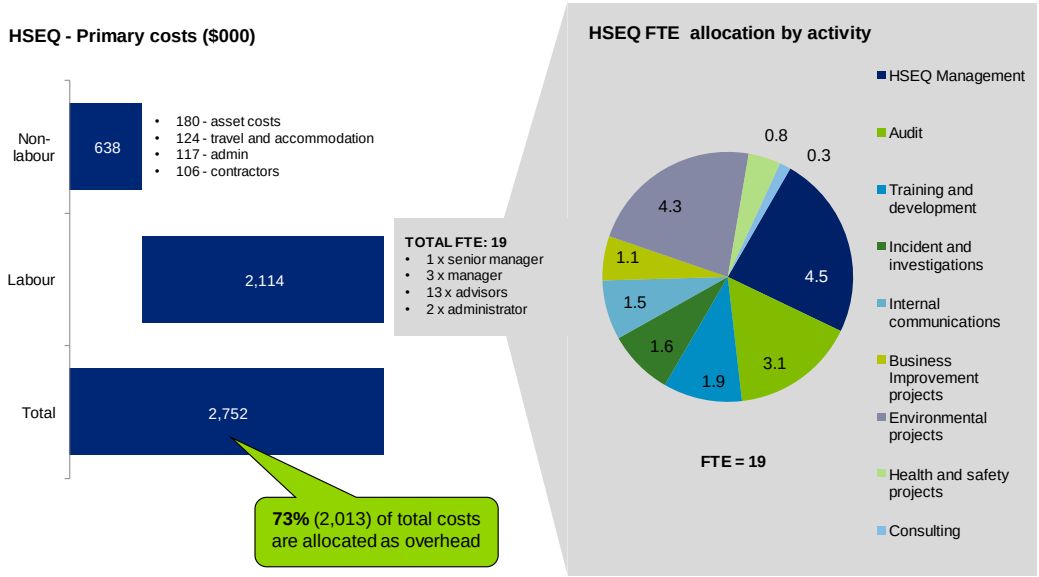


There were no benchmarks for SSR, although the external communications component of SSR (which includes strategic advertising and annual report etc.) was included in the customer enquiries and community outreach benchmark of Water Accounts.
Our assessment indicates that there were no clear efficiency opportunities.

HSEQ

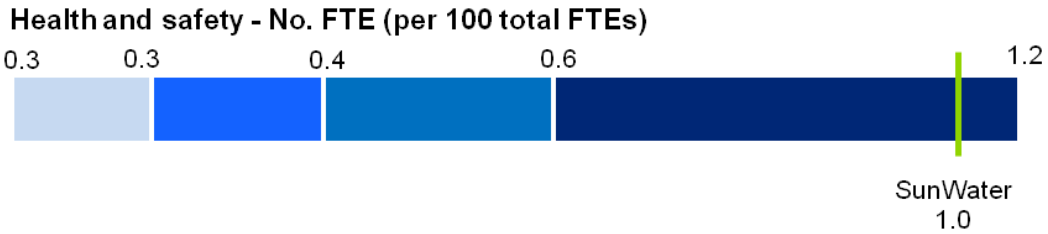
SunWater's Health and Safety, Environment and Quality (HSEQ) function includes major activities of HSEQ management, environmental projects, audit, training and development and incident reporting for a total of 19 FTEs. The majority of HSEQ costs consist of labour with 23% in non labour costs. Major non-labour components were asset costs, travel and accommodation and administration. 73% of HSEQ costs were allocated as overhead.

Figure 3-16 HR primary costs and MAE



We completed one benchmark for HSEQ being the health and safety area. This was considered a strong benchmark as health and safety effort is driven predominantly by number of FTEs in the business. The health and safety area of SunWater was in the fourth quartile of the benchmark group.

Figure 3-17 HSEQ Benchmarks



- Strong benchmark as health and safety effort is driven by number of FTE's

The MAE exercise and benchmarking indicate that there is some opportunity to reduce HSEQ costs by a potential 1 to 1.5 FTE (unchanged from the draft report). Efficiency opportunities identified included in training and development and in HSEQ internal communications.

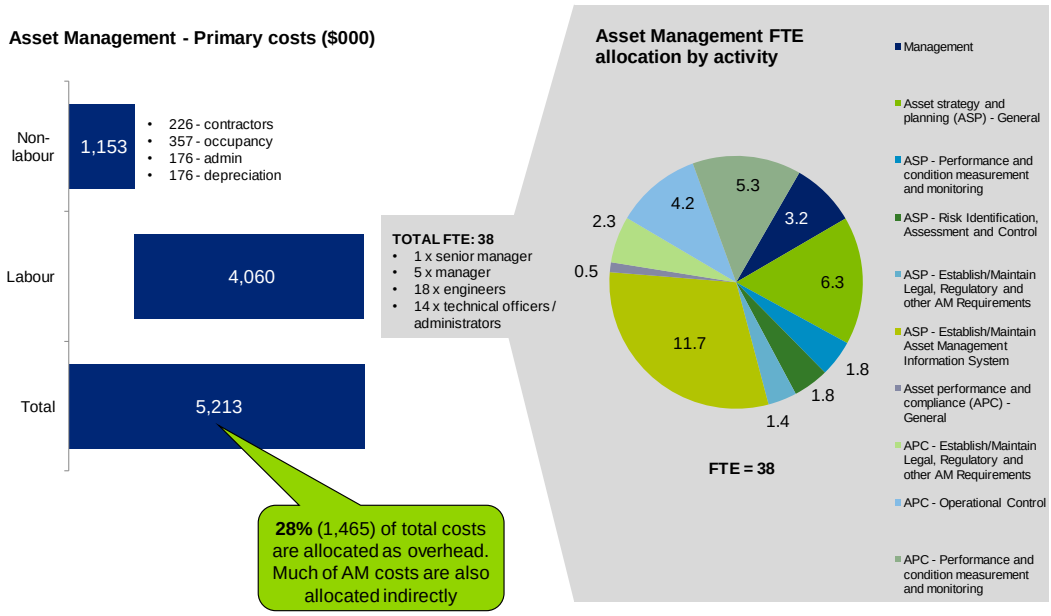
Table 3-10 Efficiency Opportunities – HSEQ

HSEQ	Total FTE = 19 Non core FTE = 1.1 (16%)		
Efficiency opportunities *(from draft report)*	**Comments on revised FTE savings**	**FTE saving *(draft report)***	**Revised FTE saving**
▪ HSEQ delivers over 300 training sessions per year to the business with 1.5 FTE dedicated to training. There is potential to review opportunities for consolidation of sessions.	▪ Efficiency remains unchanged	0.5	0.5
▪ Internal communications in HSEQ includes1.5 FTE. This appears high and there is potential to review for efficiency	▪ Efficiency remains unchanged	0.5 – 1.0	0.5 – 1.0
	TOTAL	**1.0 – 1.5**	**1.0 – 1.5**

Asset Management

SunWater's Asset Management function includes major missions of asset strategy and planning and asset performance and compliance, which includes performance condition and monitoring, risk identification and control, maintaining regulatory and legal requirements for a total of 38 FTEs. The major activity is in establishing and maintaining the Asset Management Information System (AMIS) which takes up 11.7 FTE. The majority of Asset Management costs consist of labour with 22% in non labour costs. Major non-labour components were occupancy, contractors, administration and depreciation.

Figure 3-18 Asset Management primary costs and MAE



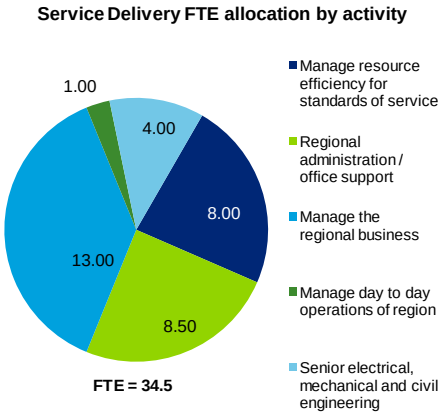
There were no comparable benchmarks for asset management and overall there were limited efficiency opportunities identified.

Service Delivery (Regions)

SunWater's IM Service Delivery function includes all the operations for the four key service regions. In terms of overhead resources there are 34.5 FTE's (consisting of managers, senior engineers schedulers and administration staff) dedicated to; managing the regional

business, day to day operations, managing resource efficiency of field workers for efficiency and standards of service, and regional administration support. The major activity is in managing the regional business with area operation managers and depot service managers consisting of 13 FTE.

Figure 3-19 Service Delivery MAE



	Brisbane	Far North	North	Central	South	TOTAL
Service Delivery Manager	1					
Senior Engineers	4					
Area Operations Manager		1	1	1	1	4
Depot Service managers		2	3	2	2	9
Scheduler		1	2 (1 x project)	1	1	5
Administration scheduler		1	1	1		3
Senior administrator		1	1	1	1	4
Administrator		1	1	1	1	4
Cleaner			0.5			0.5
TOTAL	5	7	9.5	7	6	**34.5**

There were no comparable benchmarks for service delivery. There were limited efficiency opportunities identified. We note that a significant number of persons have been removed from the regions under the centralisation of activities. The persons remaining largely look after the office and scheduling activities. There are limited admin roles required.
While there might be an opportunity to consolidate regions and offices to enjoy efficiency gains this is out of scope of this study. Careful attention must be given to the scale and geographic spread of SunWater's operations. Given the current depot structure we feel compared to other similar industries that the FTEs are appropriate.

3.5 Local benchmarking

In response to comments on our draft report, we have also completed a local benchmarking exercise by comparing the Pioneer Valley Water Board (PV Water) with appropriate SunWater distribution schemes in terms of administration costs as a proportion of operating costs.

Method

The first step of this exercise was to collect a breakdown of administration costs and operating costs from PV Water. To ensure a 'like for like' comparison we then clarified with PV Water the definition of administration costs, and adjusted SunWater's definition to align with PV Water's definition. This involved excluding some functions/activities of SunWater schemes from the administration cost category and instead including them as operating costs.

Adjustments to PV Water's data included:

- Removing bulk water charges from PV Water (that was passed through costs to PV Water's customers in the scheme). These charges relate to the bulk component of Pioneer Valley scheme which is operated by SunWater. The removal of these costs ensures that we compare only the cost of operating the distribution scheme.

Adjustments to data for SunWater distribution schemes included:

- Removing asset management indirect costs (i.e. 'strategy and systems', 'pumps and pipelines' and 'irrigation and drainage') from administration costs and including them in

operating costs instead. We did this as PV Water considered that strategic asset management (maintaining an asset register and undertaking condition assessments) was an operation and maintenance cost (O&M) rather than an administration cost.

- Removing IM Regional costs from administration costs and including them as operating costs instead. We did this as PV Water considered work planning and scheduling as O&M costs rather than administration costs. This also meant that unutilised time for SunWater's IM Regions is appropriately classified as an O&M cost rather than an administration cost.
- Removing Infrastructure Development costs ('ID north', 'ID south', 'project management' and 'project proposals') from administration costs. ID costs are likely to be similar with capital costs of PV Water; therefore they are not included in O&M costs.

The second step was to choose the most comparable SunWater distribution schemes to benchmark against PV Water. Key parameters included; size of total operating costs, number of customers, ML of WAE (including distribution losses), and length of pipelines and channels. The table below shows the three SunWater schemes that are closest to PV Water for each parameter (i.e. blue highlighted cells). The schemes that have two or more highlighted cells were chosen for the benchmark exercise, in addition to Emerald as the next most comparable scheme. The five schemes were Dawson, Lower Mary, St George, Emerald and Eton distribution schemes.

Table 3-10 Comparison of key metrics for PV Water and SunWater distribution schemes

	Total operating costs $	WAE ML (inc losses)	No of Customers	Length of pipes and channels (km)	
Pioneer Valley Water Board	**799,024**	**47,390**	**252**	**135**	
AIE - Burdekin Irrigation Distribution	13,328,090	497,538	258	763	
BIG - Bundaberg Irrigation Distribution	7,922,372	192,823	900	630	
LIT - Dawson Irrigation Distribution	1,263,538	19,957	43	102	✓
KIA - Eton Irrigation Distribution	2,115,244	63,263	307	Not available	✓
BIC - Lower Mary Irrigation Distribution	866,192	14,864	79	50	✓
MIM - Mareeba Irrigation Distribution	4,262,965	192,149	1008	436	
LIW - Emerald Irrigation Distribution	1,945,894	116,647	147	270	✓
IIS - St George Irrigation Distribution	1,611,809	60,489	51	211	✓

Source: SunWater NSPs and PV Water

Results

The results in Table 3-11 show that administration costs account for 38% of PV Water's operating costs. All of the SunWater schemes have a lower percentage of administration costs over operating costs, with the weighted average for SunWater schemes being 29%.

Table 3-11 Administration costs as a percentage of operating costs

	Total operating costs	Administration costs	O&M costs	Admin % of operating costs
Pioneer Valley Water Board	**799,024**	**304,950**	**494,074**	**38%**
LIT - Dawson Irrigation Distribution	1,263,538	363,570	899,968	29%
KIA - Eton Irrigation Distribution	2,115,244	572,003	1,543,241	27%
BIC - Lower Mary Irrigation Distribution	866,192	259,058	607,134	30%
IIS - St George Irrigation Distribution	1,611,809	533,114	1,078,695	33%
LIW – Emerald Irrigation Distribution	1,945,894	550,869	1,395,026	28%
Weighted Average (of 5 SunWater schemes)				**29%**

It should be noted however that significant differences exist between PV Water and SunWater which make comparisons of this nature difficult.

For example, PV Water consists of only four FTE staff in total, three are largely office based (although two also spend time in the field) and one is field based. For the benchmark exercise PV Water needed to estimate the split of staff time being spent on administration and operating activities (i.e. Manager was 75% admin and 25% O&M; Ops Manager 25% / 75%; Admin manager 90% / 10%; and Operations Assistant 100% O&M). These were approximate splits and is was emphasised that these can vary considerably with work load which in PV Water business is very closely related to weather conditions. This is difficult to compare with SunWater who have just under 500 staff and which charge their time to the different schemes as it is incurred.

Also, PV Water is a new scheme (12 years) and therefore major renewals have not been undertaken to date and may require less maintenance. SunWater schemes are much older schemes and may have different and additional maintenance regimes.

In conclusion, the results of the PV Water benchmarking exercise did not highlight where efficiencies may exist for SunWater distribution schemes.

Other local benchmarks

To supplement the above benchmarks and support the analysis with a number of other locally (Australian) comparable irrigation service providers we collated further information from a number of local utilities to understand the relative size of the administrative cost base.

Note however that for this exercise we have (in many cases) relied on publically available information and that even when additional information has been available there is significant difficulty in comparing ‘apples with apples’. Also note that due to definitional differences between this report and the Rural NPR, SunWater’s administration cost figures identified in Table 3-10 will be different to the costs identified in this report. Despite this we have collated a range of data for local water utilities and present the information in Table 3-12 below.

Table 3-12 Administration costs as a percentage of O&M

Utility	Admin costs (2008-09)	Total operating costs (2008-09)	Admin costs % of operating costs	Source
Queensland				
SunWater (Entity)	$9,533,369	$43,091,078	22%	Rural NPR
SunWater (Bulk)	$3,907,342	$15,838,241	25%	Rural NPR
SunWater (Distribution)	$5,626,027	$27,252,837	21%	Rural NPR
Gladstone Area Water Board		$13,930,000		QCA - GAWB - Investigation of Pricing Practices
New South Wales				
Coleambally Irrigation Cooperative Limited (Entity/Distribution)	$3,168,018	$8,242,018	38%	Rural NPR
Murray Irrigation Limited (Entity)	$3,825,631	$10,252,820	37%	Rural NPR
Murray Irrigation Limited (Distribution)	$3,177,000	$8,861,000	36%	Rural NPR
Murrumbidgee Irrigation Limited (Entity/Distribution)	$5,772,000	$15,069,000	38%	Rural NPR
Sydney Catchment Authority		$87,000,000		2009-10 AR, IPART FD 2009-2012
State Water (Entity)	$2,394,000	$37,580,000	6%	Rural NPR
State Water (Bulk)	$2,367,000	$33,651,000	7%	Rural NPR
South Australia				
Central Irrigation Trust (Entity/Distribution)	$1,364,000	$5,072,000	27%	Rural NPR
Victoria				
Goulburn-Murray Water (Entity)	$19,378,432	$76,427,786	25%	Rural NPR
Goulburn-Murray Water (Bulk)	$2,334,765	$22,808,609	10%	Rural NPR
Goulburn-Murray Water (Distribution)	$11,883,575	$43,219,413	27%	Rural NPR
Grampians Wimmera Mallee Water (Entity)	$2,499,649	$5,657,780	44%	Rural NPR
Grampians Wimmera Mallee Water (Distribution)	$2,236,488	$5,306,712	42%	Rural NPR
Lower Murray Water (Entity)	$4,815,475	$15,464,508	31%	Rural NPR
Lower Murray Water (Distribution)	$3,413,307	$12,820,363	27%	Rural NPR
Southern Rural Water (Entity)	$4,902,223	$23,857,411	21%	Rural NPR
Southern Rural Water (Bulk)	$796,539	$4,839,070	16%	Rural NPR
Southern Rural Water (Distribution)	$1,648,415	$10,362,367	16%	Rural NPR
Western Australia				
Harvey Water (Entity/Distribution)	$1,271,543	$3,653,851	35%	Rural NPR
Ord Irrigation Co-operative (Entity/Distribution)	$639,556	$2,709,241	24%	Rural NPR

3.6 Cost Escalation

SunWater's proposed escalation method for its overhead and indirect input costs (excluding electricity) including labour, materials, contractors, travel, accommodation, occupancy etc. is to employ the Consumer Price Index (CPI), as an objective measure of price growth. More specifically, SunWater is proposing to adopt the mid-point of the Reserve Bank of Australia's (RBA) target for annual CPI growth, equal to 2.5 per cent. However, SunWater proposes that in the short term its labour costs will be slightly higher than CPI. As such, SunWater proposes a separate set of assumptions with which to escalate labour costs, which are outlined and assessed below. This section also discusses the proposed escalation factors for the other input costs identified above and for SunWater's electricity costs.

Labour

SunWater estimate that its labour costs will increase annually by 4 per cent until the end of its current EBA in 2012, after which they will increase in line with inflation. SunWater assume that any increases in labour costs above the inflation rate will be offset by productivity improvements.

We consider using the mid-point of the RBA's inflation target of 2.5% to be a relatively conservative approach. This is partly because it is expected that Queensland's rapidly expanding resources sector will place upward pressure on the cost of labour resources that are similar to those employed by SunWater (i.e. engineers, trades people). Indeed, a recent report by Deloitte Access Economics, *Forecast growth in labour costs: update of December 2010 report*, forecasts an average increase in the labour costs facing Queensland's utilities sector between 2011-12 and 2017-18 of 4.3 per cent.[7]

Taking these factors into account, we consider SunWater's forecast of labour costs to be conservative, in that the evidence suggests it is likely the wage increases commanded by the labour resources it requires will be greater than 2.5%, post the current EBA.

Electricity

SunWater project that its direct electricity costs will increase by 2.5% as per the target CPI growth rate. However, this forecast has been made on the assumption that increases in actual electricity costs will exceed 2.5%, and that a "pass-through" arrangement will be put in place to reflect the difference between forecast and actual electricity costs. However, for electricity costs not charged to Service Contracts (overhead and indirect electricity costs) SunWater proposes no nominal escalation of these costs. This translates to a real decrease in SunWater's forecast overhead and indirect electricity costs over time. These costs account for an immaterial proportion of SunWater's total electricity costs, as the vast majority of electricity costs are scheme-specific and therefore directly charged to Service Contracts. Forecasting a real decrease in electricity costs is clearly a conservative approach, however due to the immaterial nature of overhead and indirect electricity costs and the 'pass-through' arrangement, we not do consider this to be inappropriate.

Other costs

Sunwater have forecast its non-labour and non-electricity overhead and indirect input costs to rise by 2.5 per cent annually for the full duration of the price path. We note that SunWater proposes the same increase for many of its **direct** costs. However, for its direct materials, contractors and plant, equipment and vehicles costs, SunWater forecasts an annual increase of 4 per cent. We consider this to be an unusual approach, given that it is not clear whether, for example, plant and equipment costs incurred in Service Contracts can reasonably be

[7] Deloitte Access Economics 2011, *Forecast growth in labour costs: update of December 2010 report*, Deloitte Access Economics, Canberra.

expected to increase more than the same type of cost incurred in the Brisbane head office (where many overhead and indirect costs "reside").

In arriving at the 4 per cent escalation rate applying to its direct materials, contractors and plant, equipment and vehicles costs, SunWater has relied upon a number of publically available forecasts of construction costs, including those carried out by CostWeb and Macromonitor. The Macromonitor report projects increases in construction and engineering costs of approximately 5% over the next year, but also foresees a slowdown in construction activity in approximately 2015. SunWater considers that using forecasts of construction costs is appropriate given that similar materials are used in construction as to those used in the operation and maintenance of its assets.

We consider that the above assumptions are reasonable. A forecast covering the entire price path would be preferable to the one cited by Macromonitor, which pertains only to the first year of the price path. However, we consider that the growth rate forecast by Macromonitor can be extended over the medium-term (out to 2015/16), given that strong levels of growth are expected in Queensland's resources sector over this period, which will impact on the costs of inputs that are common to SunWater and resources companies.

SunWater has also relied upon historic trends to complement the forecast data. In particular, SunWater show that the Queensland building construction and non-residential building construction price indexes have grown by an average rate of 4.5% and 3.9% respectively over the last 10 years.

SunWater also submits that activity levels in the construction industry (measured by ABS activity indexes), which have grown at an average rate of 20-25 per cent from 2003 to 2010, are a lagging indicator of materials costs. We assume this to mean that increased construction activity creates demand-pull inflation on material costs. SunWater show that over the last seven years, there has been strong correlation between the two building construction indexes above, and an activity index measuring the value of non-residential construction 'in the pipeline'. SunWater anticipates that the upward trend in the activity index will continue, and in line with this correlation, building costs will follow a similar trend.

However, while these correlations are positive, they are not overly strong; the correlation between the building construction price index and the value of non-residential work in the pipeline, with a one-year lag, has been 0.733, while the correlation between the non-residential building index and work in the pipeline is 0.477. Further, as SunWater states, correlation analysis is sufficient to demonstrate the existence of a relationship between two variables, but not to demonstrate causality.

Despite these factors, we agree with SunWater's position that construction activity levels are linked to building construction material prices, and that this industry in Queensland is expected to grow in both the residential and non-residential sectors. We anticipate this activity will be driven in the residential sector to a large degree by recovery from the Queensland floods, but to a greater extent by the construction required to fuel the state's booming resources sector. As the aforementioned Deloitte Access Economics report states, the longer term outlook in Queensland remains very good: "the continuing global industrial revolution will fuel Queensland's coal surge, boosting its export strength. Once the current downturn has been negotiated the State will once again carve out a growing share of output and population."[8]

Taking these factors into account, we consider that SunWater's proposed escalation factor of 4 per cent for its direct material and contractor costs is appropriate. Consequently, we consider that an escalation rate of 2.5 per cent for these types of costs when they are allocated as overhead or indirect is a conservative approach. A potential justification for the disparity in escalation rates is that Brisbane faces less cost pressure than the regional areas

[8] Deloitte Access Economics 2011, *Forecast growth in labour costs: update of December 2010 report*, p. 18 Deloitte Access Economics, Canberra, p. 18

where SunWater's operations are located. However as mentioned earlier, it is not clear from the available evidence whether this will be the case.

For other overhead and indirect input costs, a rate of 2.5 per cent is considered to be appropriate. This is because the cost pressures outlined above are likely to have little impact on these other costs, making the mid-point of the RBA's target for annual CPI growth of 2.5 per cent a more suitable escalation factor.

3.7 Insurance

SunWater's forecast insurance costs have been assessed separately to other cost categories. This reflects the relative size of the proposed expenditure (forecast to total $4.2m in 2011/12, although only $2.9m of this relates to the 22 bulk water schemes and 8 distribution schemes of relevance to Irrigators and only approximately half of the $2.9m relates to Irrigation customers with the remaining amount allocated to non-irrigators).

SunWater have procured a comprehensive suite of insurance including special risks coverage (asset related), professional indemnity and public liability, asset specific insurance (housing, motor vehicles, plant and machinery), accident insurance, travel insurance and environmental insurance. The most significant of these is special risks insurance (58% of total insurance premium covering three assets categories: Dam and weirs, distribution systems, and industrial pipelines) and the combined liability insurance (professional indemnity and public liability - 27% of total insurance premium). Due to the significant contribution of special risk insurance to the total premium our review has largely focused on this insurance item.

[redacted]

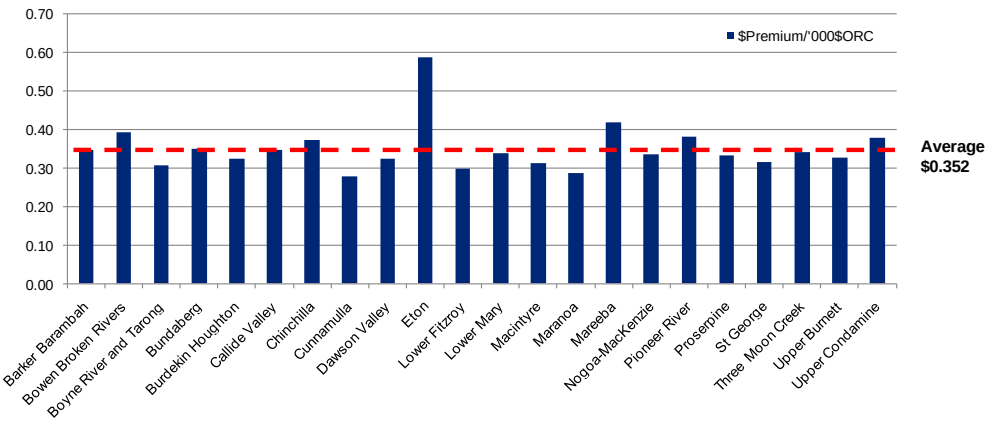
In our assessment of SunWater's insurance costs we have focused on the process undertaken in selecting an appropriate insurance policy. This is because of limited publically available data to assess and compare insurance premium, as well as the individual nature of SunWater's asset risk profile making any comparison difficult. That said we did backsolve for scheme level risk premiums using the optimised replacement cost of bulk water assets and allocated insurance costs as provided in SunWater's NSPs.

Insurance providers quote based on the mix of assets to be covered. The perceived risk profile of different assets attracts varying premium differentials resulting in an overall insurance premium (the overall insurance premium is the sum of the premium rates, attributable to individual assets, multiplied by the individual declared asset value). Because the insurance provider treats the rates allocated to different asset classes as intellectual property, comparable data is very hard to come by. In addition, as the insurance provider also treats the declared value of assets as intellectual property it is impossible to back-solve for individual premium rates. While SunWater do publically provide asset values for their bulk water assets in the NSPs (they provide optimised replacement cost), these values are not the same as those used by the insurance companies and therefore indicative at best.

To provide an estimate of the insurance premiums applied we backsolved the $premium/$asset value for each bulk water scheme based on the optimised replacement values (ORC) included in SunWater's NSPs and the insurance costs allocated to each scheme (also provided in the scheme NSPs). We then compared this rate for each scheme against the overall average. Our analysis indicated that insurance premiums were largely similar across schemes (with the exception of Eton) with a total variation of between 21% below the average to 19% above the average. This variation can be explained by both the varying risk profiles of the individual schemes, allocation variances (e.g., different staffing levels) and rounding errors in the calculation of rates for the smaller schemes. Eton insurance costs were the only significant exception being 67% above the average – we would request further clarification from SunWater and their insurance providers for the basis for this variation. We again note that our analysis is indicative only as we do not have access to either the declared value of assets of the individual risk premium for different asset classes.

Figure 3-20 below provides the results of our analysis.

Figure 3-20 Calculated Insurance Premium by Scheme (Forecast 2011/12)
$Premium/'000$ Optimised Replacement Cost



Our analysis of SunWater's insurance costs focused on the process of selecting insurance cover to determine its competitiveness. Our assessment found SunWater had recently undertaken a robust review of its insurance policy having engaged Marsh to run tendering

process to select a lead provider and insurance package. This process resulted in CGU being selected as lead manager and a competitive selection process resulted in an insurance package with no less than 6 individual insurance companies represented.

SunWater's insurance broker spent time to understand SunWater's risk profile and the various insurance covers required, before going to market and seeking quotes from insurance providers. In our view, after interviewing James Foster of Marsh, we are comfortable that a robust process was followed, with SunWater able to select from a range of proposals meeting SunWater's risk profile. However we again note we cannot comment on individual insurance rates.

As a result of going to market SunWater was able to move away from its existing insurance coverage of individual claims (with an excess incurred each time of $0.5m) to a policy that allows multiple claims with a single (albeit larger) excess of $5m. This has allowed SunWater to better manage the risk of significant insurance events (such as the recent Queensland floods). SunWater consider this a significant strengthening of their insurance coverage and improved management of their risk profile. While this is a variation of strategy (that was not previously available at competitive rates) it does reflect a logical insurance strategy for a capital intensive, geographically disperse company such as SunWater.

Our assessment indicates that other non-asset related insurances (e.g., professional indemnity and public liability), based on the process followed, should reflect a competitive outcome.

In our view the procurement of insurance by SunWater has followed a competitive process to both identify a suitable insurance lead provider and an appropriate package of insurance coverage. While we are not able to specifically comment on the quantum of the insurance premium we would expect a competitive outcome as a result of the process followed.

3.8 Identified Efficiency Opportunities

Overall SunWater's cost structure benchmarks are within expected global benchmark ranges with some minor exceptions. Our MAE analysis did not identify any major structural issues with the delivery of services (other than the relatively high ICT cost that is being addressed through the SWIMS replacement program). Our draft analysis indicates there is an opportunity to reduce FTEs by 2.3 – 2.9% (of 178.4 FTE's assessed). The main opportunities identified are within the Finance, HR, ICT and HSEQ functions.

Based on a median SunWater salary of $98,582 (for the forecast year 2012), this translates to a potential saving of $409,115 to $507,697. As this saving includes the statutory on-costs associated with employees, such as superannuation payments, it represents a comprehensive view of the potential efficiency opportunities faced by SunWater.

4 Cost Allocation Methodology

This section outlines SunWater's proposed cost allocation methodology (CAM) and assesses the appropriateness of this methodology. Our approach to assessing the appropriateness of this CAM was broadly to:

- Briefly identify the reasons why a CAM is necessary for SunWater's business and to the price setting process
- Outline SunWater's proposed methodology including a discussion of the different types of costs to be allocated and the basis for SunWater proposing direct costed labour as an allocator of cost
- Apply best practice principles of cost allocation, and assessing industry alignment through case studies of recent regulator determinations (see Appendix A for cases studies)
- Identify the drivers of cost for key functions through careful consideration of the following inputs:
    - MAE analysis
    - The outcomes of a number of internal and external workshops
    - Irrigator submissions to the round two consultations.
- Conduct a sensitivity analysis to model the impact of using alternative cost allocation bases (CABs) on the allocation of these functions' costs, relative to the base case of direct costed labour
- Recommend suitable CABs for these functions taking into account the inputs listed above and the sensitivity analysis results
- Carry out a qualitative assessment of SunWater's proposed approach to allocating costs to customer groups within Service Contracts.

Rationale for a CAM

Material differences exist in the cost of water delivery to each Service Contract as a result of the diverse nature of each Service Contract in terms of size, location, asset characteristics, the capital and labour resources required to deliver water supply services and the services delivered. For instance, a Service Contract that employs twice as many SunWater staff compared to the average scheme will generally incur higher-than-average labour costs. By the same token, Service Contracts that are relatively capital-intensive will often incur higher refurbishments and enhancements costs. As the prices set by the Authority should be cost reflective (subject to the guidance in the Amended Notice), it follows logically that those Service Contract responsible for the greatest proportion of costs should also be charged the highest prices.

An appropriate cost allocation methodology is required to ensure that costs are most appropriately allocated to those parts of the business which receive the service that generated these costs. In some cases there is a clear driver of cost, whereas in other cases the relationship between cost generation and service provision is not clear and appropriate rules for allocating these costs must be devised. These rules involve the use of cost allocation bases (CABs), which act as proxies where causal drivers of cost cannot clearly be identified. Allocating using these CABs will ideally result in costs going to those customers most responsible for causation.

4.1 SunWater's proposed CAM

This section outlines SunWater's proposed CAM including a description of how the methodology defines and treats the various elements of its cost base, as well as the process by which these costs are allocated to Service Contracts and subsequently to customers. A brief outline of SunWater's basis for proposing that direct costed labour be used as a business-wide cost allocator is also provided.

4.1.1 Types of costs

Broadly speaking, SunWater breaks its cost base down into three types of costs:

- Direct costs
- Indirect costs
- Overhead costs.

Table 4-1 Cost types in SunWater's proposed CAM

Cost type	Description
Direct costs	Costs that can be directly attributed to a particular Service Contract or segment. Whenever it is practicable for SunWater employees to charge their time or expenses to a particular Service Contract, they do via a time sheeting process. The most common direct cost is direct labour, which is incurred when a staff member performs work on a particular scheme (such as maintenance on a distribution pipeline). Other common direct costs include electricity, materials and contractors.
Indirect costs	Costs incurred by a SunWater function in providing support to a particular subset of Service Contracts (rather than to all 62). For instance the Headworks indirect function provides support to bulk water Service Contracts, as these are the only Service Contracts to have dams. The allocation of indirect costs to Service Contracts is explained in more detail in the cost centre discussion below.
Overhead costs	These are costs incurred by SunWater functions in providing support to the whole business (i.e. all 62 Service Contracts) and are not able to be directly charged out to the business. They will generally be the residual amount of a function's costs once direct and indirect costs have been charged out. It is important to note that overhead costs come from all over the business and not purely from the 'typical' overhead corporate functions. The allocation of overhead costs is treated in one of two ways: • A loading factor applied to direct costed labour. This is explained in more detail in the cost centre discussion below • A 5% materials charge where any non-labour (excluding electricity)

Cost type	Description
	costs charged to Service Contracts are increased by 5% to cover centralised procurement costs.

The nature of direct costs means that they can be attributed to a particular service and are therefore automatically apportioned to Service Contracts. By way of example, consider a situation where SunWater staff perform maintenance on a dam located in the Burdekin-Haughton scheme. The costs associated with these employees, including labour and non-labour costs (i.e. materials, travel and so on) are directly attributable to the provision of bulk water supply services to that scheme. As a result, these costs are directly charged to that scheme using a combination of timesheets and project logs.

The allocation of indirect and overhead costs, however, is more complex because the indirect and overhead costs incurred by SunWater in the delivery of water supply services are relevant to more than just one scheme. In other words there is no direct relationship between the service provided and the costs associated with generating the service. For instance, SunWater's internal finance department, which is located in the Brisbane head office, provides the financial budgeting, forecasting, modelling and reporting functions necessary for the business. However the costs incurred by this function cannot be directly attributed to each Service Contract and therefore must be allocated across schemes.

Section 4.1.2 outlines the method by which overhead and indirect costs are allocated to SunWater's Service Contracts.

4.1.2 Types of cost centres

There are broadly three types of cost centres comprising Resource Centres, Indirect Cost Centres and Service Contracts. These three types of cost centres are designed so that they interact with each other to ensure that costs flow through the business appropriately and are allocated in the correct manner.

Resource Centres

Resource Centres form the starting point of all the costs of the business. A Resource Centre is essentially a business unit within SunWater that is responsible for employing staff (as well as incurring non-labour costs). At the start of a budgeting period, a Resource Centre captures the combined salaries of all staff it employs, and as staff charge out their time to other cost centres the resource pool is depleted.

For example, the ICT function (a centralised function within the Brisbane head office) is the Resource Centre that employs ICT staff. As ICT staff carry out work, they then charge their time and expenses to the part of the business they are performing tasks for (known as the recipient of the service). Recipients can either be:

- Other Resource Centres (e.g. ICT performs work for the Finance function)
- Indirect Cost Centres (e.g. ICT performs work for Water Accounting)
- Service Contracts (e.g. if ICT performs work for Burdekin-Haughton Water Supply).

As time is charged to recipients, the labour and non-labour costs (i.e. materials) residing in the Resource Centre are depleted. The 'residual' costs of the Resource Centre (i.e. costs that are not charged to other Service Contracts or Resource Centres), must then be allocated out as overheads (charged to Service Contracts) or indirect costs using an appropriate allocation methodology.

There are three types of Resource Centres which are classified according to the nature of their overhead costs (i.e. the residual cost amount once direct and indirect costs are charged out). Each Resource Centre is classified as one of the following:

- Brisbane overheads (or corporate overheads), which are Resource Centres that support the entire business, such as the Board or CEO
- Local overheads, which are Resource Centres that support a discrete aspect of the business, such as Asset Management, or Infrastructure Management – Far North
- Mixed overheads, which is a combination of Brisbane and local overheads. Examples include Finance, HR and Strategy

Brisbane overhead (i.e. Corporate GM)

Brisbane overhead Resource Centres residual costs are apportioned out across the entire SunWater business.

The apportionment is achieved by aggregating all Brisbane overhead Resource Centres costs and dividing by the forecast direct labour costs of the business to determine a 'loading rate'. For instance, if SunWater's Brisbane overhead costs and forecast direct labour costs summed to $10m and $40m, respectively, the loading rate would be 25% (i.e. $10m/40m). Every dollar of labour charged to either a Service Contract or an Indirect Cost Centre would have the loading rate applied to it, so that Brisbane overhead costs are allocated across the business. For instance if the Burdekin-Haughton Bulk Water Supply SC was forecast to have $1m of direct labour costs for a given year, its allocation of Brisbane overhead costs would be equal to $250,000 (25% of $1m).

Local overhead (i.e. Asset Management)

Local overhead Resource Centres 'residual' costs (discussed above) are allocated in a similar way to Brisbane overhead costs; where the sum of the 'residual' costs of all local overhead Resource Centres is divided by the forecast labour costs of the business. This is done to determine a 'loading rate' which is then applied to direct labour charged to either a Service Contract or an indirect Cost Centre[9].

For the purpose of allocating costs to the business, both the Brisbane and local overheads are treated identically and should be considered as one cost category. The difference between the two is the way in which these costs are treated within SunWater's accounting system to try and encourage SunWater employees to effectively manage their cost bases. The denominator used in determining both the local and Brisbane loading rates is the same.

Local and Brisbane overhead (mixed) (i.e. Finance)

Mixed overhead costs are apportioned in a similar fashion to local and Brisbane overhead costs, with one additional step: the 'residual' cost of a Resource Centre is first divided into a local overhead component and a Brisbane overhead component. See Appendix B, Figure B, Note F for an example of this, including the formula employed to divide costs into Local and Brisbane overheads. These two components then 'feed into' the calculation of the local and Brisbane overhead rates, as described above.

The various types of Resource Centres are summarised in the following table:

[9] Note that labour charged to an overhead Resource Centre can attract overhead, but this is generally an immaterial amount. For example, SunWater forecasts that in 2012, labour charges to Resource Centres will attract $88,000 of overhead, or less than 1 per cent of the business's cost base.

Table 4-2 Resource Centre types

Resource Centre	Type
Board	Brisbane
CEO	Brisbane
Finance	Mixed
SSR	Mixed
HSEQ	Mixed
Legal and Property	Mixed
HR	Mixed
Procurement	Mixed
Corporate GM	Brisbane
ICT	Mixed
Internal Audit	Brisbane
IM - Far North	Local
IM - Central	Local
IM - South	Local
IM - North	Local
ID - North	Local
ID - South	Local
ID - Project Management	Local
ID - Project Proposals	Local
IM - GM	Indirect
IM - Asset Management	Local
IM - Services Delivery	Indirect
IM - Water Accounts	Local

Note: IM – GM and IM – Services Delivery are considered to be Indirect Resource Centres as they are exclusively made up of indirect costs. As a general rule, however, Indirect Cost Centres are not considered to be Resource Centres. This is explained further below.

Indirect Cost Centres

Indirect Cost Centres contrast with Resource Centres in that they generally do not employ staff or incur other non-labour expenses. However, they are similar in other respects to Resource Centres as whatever costs are charged to an indirect cost centre are apportioned out to Service Contracts using a loading factor. This apportionment occurs however in a more focused manner, as indirect costs are allocated only to those Service Contracts that receive some benefit from the cost centre. For example, the Headworks function, which is an Indirect Cost Centre, provides support to bulk water Service Contracts, as these are the only Service Contracts to have dams. Consequently, Headworks' costs are allocated only to those Service Contracts that have dams.

Indirect costs are essentially a more 'targeted' variant of an overhead cost and are allocated using a calculated 'loading rate' (similar to overhead). This rate is determined by dividing the cost of an Indirect Cost Centre by the forecast labour costs of only those Service Contracts that the Cost Centre provides support to. The rate is then applied to every dollar of direct labour charged to these Service Contracts.

Lastly, Indirect Cost Centres are generally considered to 'belong' to particular Resource Centres. This arrangement is appropriate given that most of the Indirect Cost Centre's labour

costs are charged to it from employees residing in the associated Resource Centre. For instance, the Pump Stations and Pipelines Indirect Cost Centre is part of the Asset Management Resource Centre. In 2012, SunWater forecasts that all of Pump Station's labour costs will derive from Asset Management staff.

Service Contracts

A Service Contract is a group of one or more segments (e.g. reticulation, headworks, drainage etc) of a WSS that collects both revenue and costs. It is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash flows from other assets or groups of assets. For example, the bulk water and distribution systems within the Burdekin-Haughton WSS are both considered to be separate Service Contracts.

Service Contracts contrast with Resource Centres in that they do not employ staff or incur other non-labour expenses. Rather, direct costs such as labour or electricity are charged to a Service Contract, as well as a share of allocation of indirect and overhead costs. Therefore Service Contracts are the end point for all of SunWater's direct, indirect and overhead costs. Service Contracts do not charge out their costs, as they do not employ people (unlike a Resource Centre).

From Service Contract to customers

Each Service Contract has a number of customers within it. Once the total costs have been determined for each Service Contract (i.e. sum of direct, indirect and overheads), an appropriate division of that cost is made between customer groups (i.e. high or medium priority customers) within the Service Contract.

Operations and maintenance (O&M) costs are allocated to customer priority groups based on the aggregate mega litres (ML) of WAE held by each of these customer groups. SunWater considers that as O&M costs do not vary according to the delivery of medium or high-priority WAE, the relative volume of WAE is the most accurate way of apportioning costs. For example, medium-priority customers in the hold Burdekin-Haughton bulk water Service Contract hold 88.8% of the scheme's WAE. These customers are therefore allocated 88.8% of the O&M costs apportioned to that Service Contract, while the remaining 11.2% is allocated to the high-priority WAE customers

Refurbishments and enhancements (R&E) costs are allocated to customer groups based on the Hydrological Utilisation Factor (HUF) applying to each priority group. The HUFs are significantly different than the WAE held by the two customer groups. For instance, high-priority customers in the Burdekin-Haughton bulk water Service Contract hold 11.2% of the scheme's WAE. However, based on their HUF, this customer group is allocated 21% of the R&E cost apportioned to that Service Contract. This result reflects the assumption made by SunWater that the delivery of a high-priority WAE is more capital-intensive than ensuring the delivery of a medium-priority, but not necessarily more O&M-intensive.

Sunwater's proposed method of allocating costs, including overhead and indirect costs, to customer groups is assessed using cost allocation principles in section 4.2.3. We provide further analysis and our recommendations in regard to the appropriateness of this methodology in section 4.2.5.

Worked examples

Appendix B illustrates the allocation of overhead and indirect costs to Service Contracts based on direct labour costs. Note that all numbers are forecast data for 2012 and in nominal dollars ('000s) unless otherwise stated. Each example is designed to be worked through in conjunction with the accompanying notes immediately after each diagram.

Appendix C illustrates the allocation of overhead and indirect costs (using the calculated loading rates) to a single Service Contract (e.g., Burdekin-Haughton Water Supply, or ABB)

and customer groups within that Service Contract. The starting point for the first example is ABB's direct labour cost, as this is the cost driver SunWater proposes to use as the basis for allocating its indirect and overhead costs. The second example demonstrates the allocation of total cost (comprised of labour and non-labour direct costs as well as indirect and overhead costs) to customer groups.

4.1.3 Basis for SunWater's allocation methodology

SunWater considers that direct labour costs is the most appropriate cost driver of its overhead and indirect costs as it is a robust indicator of activity and effort. SunWater also mention that a recent regulatory decision made by IPART in its assessment of State Water's cost allocation methodology gave further strength to using this allocator. In its submission to the QCA, SunWater states that "allocating indirect and overhead costs on the basis of labour ensures that a number of non-regulated activities, including consulting and external contracts (e.g. operations, facilities management) receive a reasonable proportion of costs, as these activities predominantly involve labour costs."[10] Furthermore, SunWater considers that using an output measure such as customer demand as a CAB would be unsuitable as there are many centralised costs that are fixed in respect to output (i.e. it is unlikely ICT costs would vary with a marginal increase in customer numbers).

In contrast to using a single CAB for the CAM, SunWater recognises that using multiple CABs to allocate different cost types may result in a more unbiased allocation of costs. However, SunWater argues that such a method can result in increased scope for error, as well as being inherently complex and potentially difficult to implement. SunWater concludes that "labour is also reflective of a broad suite of centralised services, thus avoiding potential distortions that would arise from other measures. Labour is also a meaningful driver across SunWater's entire business, including for other assets and services."[11]

Futhermore, SunWater submits that the CAB used in the previous price setting process, direct operating costs (excluding electricity), is no longer relevant. SunWater's customer base has evolved significantly since the last review, to include an increasing proportion of industrial and commercial customers. Given the lumpy nature of the expenditure required to service these customers and carry out other major capital projects, SunWater considers costed labour to be a more suitable basis of allocation. Given its effect on the quantum of centralised costs, SunWater's recent move to a more centralised business structure as a result of the Stronger Lighter Faster Initiative (SLFI) has increased the importance of using an accurate, robust CAB.

4.2 Assessment of SunWater's Proposed Methodology

4.2.1 Key findings

We have identified a number of areas of SunWater's proposed CAM that could be improved and have provided recommendations on alternative CAB for key SunWater functions. The functions we have suggested alternative CAB(s) for are:

- Finance
- Procurement
- IM – Regions (Far north, north, central and south)
- IM – Asset Management
- IM - Water Accounts

[10] SunWater 2010, Background paper – QCA review of irrigation prices – Centralised costs, p. 10
[11] SunWater 2010, QCA review of irrigation prices – Supplementary information – Allocation of centralised costs, p11

- IM GM and Service Delivery
- ID.

With regard to IM – Regions and ID overhead costs, we suggest these are allocated in a more targeted manner based on direct labour charges made from those functions to Service Contracts. This approach ensures that non-utilised labour costs are most accurately apportioned out to the Service Contract they derive from, rather than being spread out across the entire business.

We have recommended that for a number of functions direct costed labour is used to allocate costs, as it is the most suitable driver of effort and cost based on our understanding of each function's purpose and staff activities. These functions included:

- HR
- ICT

In some cases, direct costed labour may not have been a strong driver of cost however there were no obvious alternative drivers and therefore CABs that would represent an improvement on it. These functions included:

- SSR
- HSEQ
- Legal and Property

Lastly, some functions were not modelled due to their broad nature in providing governance to SunWater and the unlikelihood that a more suitable driver exists. Consequently, for these functions we recommend direct costed labour is used as the basis for allocation. These functions include:

- Board
- CEO
- Internal audit
- Corporate General Manager.

Table 4-3 summarises the results of our alternative driver modelling, showing for each key SunWater function the CABs modelled, the CAB SunWater proposes to use and our recommendation.

Table 4-3 Summary of CAB recommendations for key SunWater functions

Function	SunWater's proposed CAB	Our recommended CAB(s)	Notes
Human Resources	Direct costed labour	Direct costed labour	
Finance	Direct costed labour	Direct costed labour, transactions	Customer transactions aspect is best driven by a transactional metric and the remainder by direct costed labour. Transactional data used need to pertain to customer invoices, AR, AP etc.
Strategy and Stakeholder Relations	Direct costed labour	Direct costed labour	
Health, Safety, Environment and Quality	Direct costed labour	Direct costed labour	
Legal and Property	Direct costed labour	Direct costed labour	

Function	SunWater's proposed CAB	Our recommended CAB(s)	Notes
Procurement	Direct costed labour	Transactions	Transactions used need to pertain to vendors, suppliers and contractors etc
Information and Communications Technology	Direct costed labour	Direct costed labour	
Infrastructure Management (IM) Regions	Direct costed labour	Direct costed labour (targeted)	Costs are allocated on the basis of IM Regions costed labour
IM - Asset Management	Direct costed labour	Direct total cost	
IM - Water Accounts	Direct costed labour	Direct costed labour, Customer numbers	Customer support aspect is best driven by customer numbers and the remainder by direct costed labour
IM - General Manager and Service Delivery	Direct costed labour	Direct total cost	
Infrastructure Development	Direct costed labour	Direct costed labour (targeted)	Costs are allocated on the basis of ID costed labour
Board, CEO, Internal Audit and Corporate GM (not modelled)	Direct costed labour	N/A	N/A

In regard to the allocation of costs to customer groups within Service Contracts, we recommend that a weighted factor, such as SunWater's HUF, is used to allocate both capital and O&M costs. This is because in the absence of a relationship between administration costs and WAE delivery, an approach taking into account the relative benefits received by customer groups is preferred. Section 4.2.5 provides the analysis supporting this view.

4.2.2 Methodology and assumptions of CAM analysis

Application of principles

There are a number of principles of cost allocation which should be followed when developing appropriate rules for allocating costs. These principles recommend that an appropriate CAM should:

- Directly attribute costs whenever practicable
- Consider the inherent accuracy of each driver's data source
- Treat similar types of costs consistently
- Make appropriate trade-offs between simplicity and accuracy
- Be aligned with others in the industry.

The alignment of SunWater's proposed CAM with the above principles is discussed in Section 4.2.3.

Sensitivity analysis

Selection of CABs

Our modelling exercise identified the impact of using the above CABs to allocate overhead and indirect costs to Service Contracts. For each function, we modelled all CABs that we considered to be potential alternatives to direct costed labour, as well as direct costed labour itself. These CABs, as shown in Table 4-5, were selected from the following 'long list' of potential CABs:

- Direct costed labour
- Direct costed labour (targeted)
- Direct total cost
- FTEs
- Customer numbers
- Transactions
- Asset value.

The thought-process we followed in converting this list into a 'short list' of suitable CABs to then model for each function was comprised of the following inputs:

- MAE analysis to gather specific information on how and why employees within key functions spend their time. This exercise allowed us to understand the levels of cost and effort, in FTE terms, associated with the activities undertaken by staff, and what drives this cost and effort. This information was crucial to then being able to identify a proxy variable, measurable at the Service Contract level, for the driver or drivers of effort and cost for each function
- Preliminary internal workshop to produce the 'traffic light' diagram included in our draft report, which rated all potential CABs for key SunWater functions using a 'red, amber or green' approach. When assessing the suitability of each CAB and assigning a rating, we considered the effect a marginal change (in the CAB) might have on the effort and cost of the function. An ideal CAB for a particular function will have a causal relationship with the function's costs, or failing that, the chosen CAB should have a strong, positive correlation with the ideal CAB. For example, if labour costs were identified as an ideal cost driver but could not be implemented as a CAB for a particular reason, number of FTEs would be a suitable secondary CAB (or proxy) given the strong, positive correlation it has with labour costs
- Irrigator submissions made in response to the round two consultation process. Although the submissions covered a range of issues, some submissions focussed on the suitability of direct costed labour as an allocator of cost and what potential alternatives there were. These views were taken into account when formulating our analysis
- Workshop held with key SunWater personnel and QCA staff. The objective of this workshop was to refine our understanding of cost drivers through a collaborative process with SunWater staff. Workshop participants then discussed the advantages and disadvantages of potential CABs. This discussion had a similar aim to the MAE analysis in that it took into account, among other things, the:
    - Activities each function was responsible for
    - Relative importance of these activities to overall function cost and effort, in FTE terms
    - Driver(s) of the effort and cost incurred in carrying out these activities
    - Data availability of variables that were considered to be appropriate proxies for these drivers and therefore suitable to use as CABs.

The outcome of this workshop was an agreed-upon 'short list' of CABs to be modelled for each function, based on the CABs' abilities to proxy for causation of the cost and effort incurred by each function.

Recommendation of CABs

In making our recommendations, we have largely relied on a qualitative understanding of the driver(s) of each function's effort attained from the inputs described above. This is due to the limited quantitative evidence (i.e. correlation of a function's cost and a particular driver) available.

The decision to recommend a CAB was made on the basis of the CAB in question appearing, after careful consideration of the aforementioned qualitative evidence, to be the best proxy for causation of the function's effort and cost.

For some functions, the CABs analysed were considered to be **slight** improvements upon direct costed labour, but resulted in negligible differences in allocation outcomes. For these functions, we have generally recommended that the status quo (i.e. allocating via direct costed labour) be maintained. This approach reflects the fact that the trade-off between simplicity and accuracy has been a major consideration in considering alternative CABs

In other cases, we have considered that some CABs represent **substantial** improvements to direct costed labour. Regardless of the impact on allocation outcomes, we have recommended that these CABs be use as allocators.

In those instances where a particular CAB appears to be equally appropriate as direct costed labour, we have generally not recommend implementing that particular CAB on the basis that doing so would increase the complexity of SunWater's proposed methodology without necessarily producing a better outcome.

In some cases, we have found that a particular function has multiple drivers of cost. An example is IM - Water Accounts, where roughly half the function is dedicated to customer enquiries (driven by customer numbers) and the remainder is dedicated to water accounting (driven by direct costed labour. In this case, an optimal allocation of costs would occur if multiple CABs were used. This approach, however, would add complexity to the cost allocation methodology, further demonstrating the trade-off between simplicity and accuracy. Depending on the ease with which staff activities within a function can be segregated, there may be merit in investigating the feasibility of using more than one allocator for some functions.

In some instances the most identifiable driver of a function, or component of a function, is the size and complexity of the business (i.e. the reporting, budgeting and modelling component of Finance). In these cases, a proxy variable is required that allocates cost to those aspects of the business that are greatest in size or complexity. We consider that direct total cost (excluding 90% electricity) or direct costed labour are both equally appropriate for this, in that they both capture the relative size of Service Contracts.

We note that issues of equity or implementation costs in regard to SunWater adjusting its CAM to use alternative CABs have not been considered in our analysis.

Assumptions

Rather than allocating the total 'pool' of overhead and indirect costs using one particular CAB (which is what SunWater propose), we have allocated each function's costs using the most suitable CABs for that function. This enables the impact of reallocating a function's costs to be shown in isolation from the impact of reallocating other functions. Table B in Appendix C shows this clearly.

The overhead and indirect costs allocated in our analysis (summarised in Table B in Appendix D) differ slightly from the actual costs presented in SunWater's NSPs (summarised in Table A in Appendix D). The reasons for this are as follows:

- In the SunWater Financial Model (SFM), the total 'pool' of overhead costs for 2012 (equal to approximately $39.25 million) is allocated to both Service Contracts and Indirect Cost Centres. In our analysis, we have taken the amount of overhead cost allocated to indirect cost centres as a 'given'. That is, we used direct costed labour to allocate the appropriate amount of overhead cost to indirect cost centres, as per SunWater's proposed method. We then reallocated these indirect cost centres, including the overhead they contain, using alternative CABs. As such, the amount of overhead costs allocated to Indirect Cost Centres (approximately $4.2 million) was subtracted from total overheads so that it was not allocated twice; once as an overhead and once as an indirect cost. This was done by 'smoothing' the $4.2 million reduction over the various overhead functions, weighted according to cost. This approach was taken because it is not practicable to reallocate overhead costs to indirect cost centres using many of the alternative CABs, i.e. customer numbers, asset value and so on. If we were to instead allocate **no** overhead cost to indirect cost centres and reallocate total overhead costs solely to Service Contracts, this would represent a significant deviation from SunWater's cost allocation method and likely produce a perverse outcome, as a substantial section of the business (the indirect cost centres) would avoid attracting any overhead cost.
- A similar adjustment was made to take into account unrecovered costs, the ICT desktop and network charge and the 5% materials charge (which is allocated as a separate item to Service Contracts). The sum of these costs ($5.85 million) was subtracted from the various overhead functions, also weighted according to cost. In the SFM, these adjustments are made to the total 'pool' of overhead costs, rather than to individual functions
- Unlike in the SFM, we have not allocated overhead and indirect costs to dam safety upgrade costs. Specifically, any costs (i.e. labour or other direct costs) associated with dam safety upgrades in the three schemes carrying out these projects in 2012 (Burdekin-Haughton, Eton and Mareeba Water Supply) have not 'attracted' overhead and indirect costs. This results in our analysis allocating slightly more cost to schemes with no dam safety upgrade projects, than as per the SFM. This adjustment was primarily made to prevent admin costs being allocated to the $8.4 million of contractor costs forecast to be incurred carrying out Eton's upgrade project, which would have occurred if direct total cost was used to allocate costs.

Due to the differences between our simplified analysis and the SFM (outlined above), the quantitative results presented below are to be treated as indicative only. They are the outcome of a modelling exercise designed to replicate, at a high level, the methodology used in the SFM, using cost driver data supplied from SunWater. Although every effort has been made to ensure our analysis reflects the SFM where possible, we note that SunWater would need to carry out its own, more detailed modelling exercise to quantify the impact of using alternative CABs as accurately as possible.

4.2.3 Application of principles of cost allocation

The appropriateness of any given CAM can be measured using a number of allocation principles, as previous discussed. These principles should reflect industry best practice, be logical and intuitive and importantly take into consideration the objectives of both regulators and regulated businesses. The principles along with a brief evaluation of SunWater's adherence to them are discussed below. This section also presents our views on the appropriateness of SunWater's proposed method of allocating Service Contract costs to customer groups.

Table 4-4 Principles of cost allocation

Guiding principle	Cost allocation 'phase'	SunWater's alignment with principle
Directly attribute costs whenever practicable	Admin costs to schemes	Where there is a clear causal relationship between a centralised function and a particular asset or activity, SunWater allocates costs based on an estimate of the effort (i.e. labour and non-labour costs) required to carry out the necessary work. Furthermore, utilisation targets incentivise employees to directly charge their time and materials to a particular activity.
Consider the inherent accuracy of each driver's data source	Admin costs to schemes	Data sources that are inherently inaccurate, such as management estimates, should be relied upon as infrequently as possible. We note SunWater forecasts direct labour costs on its estimate of employee utilisation. However, forecasting may also be required for alternative cost drivers, such as asset value.
	Total scheme costs to customers	The allocation of costs between customer groups depends on WAE (for operating and maintenance costs) and HUF (for capital costs). WAE information is recorded by Water accounts and published in NSPs, while HUFs are determined using detailed hydrographic models, which are not in the public domain and thus cannot be tested for accuracy.
Treat similar types of costs consistently	Admin costs to schemes	A consistent allocation method should be applied across a particular type of costs (i.e. fixed costs should be allocated through "indirect" CABs, while costs which vary with customer demand should be allocated using "direct" CABs). SunWater's administration costs are predominantly fixed costs and have been consistently allocated using an indirect CAB, namely forecast direct labour costs. However, some functions whose costs may not be completely fixed with respect to customer demand, such as Customer Service within Water Accounts, may be more accurately allocated using an alternate CAB. See below for further discussion of appropriate CABs for key overhead functions.
	Total scheme costs to customers	The two categories of costs to be allocated to customers are O&M and R&E costs. R&E costs have been consistently allocated to customer groups on the basis of HUFs, while O&M costs have been consistently allocated on the basis of WAE. However, administration costs relating to R&E projects are capitalised and thus allocated using HUF, while administration costs relating to O&M costs are allocated using WAE. Both categories of costs derive from the same source (the 'residual' costs of SunWater overhead functions), resulting in an inconsistent treatment of the same type of cost. See section 4.2.5 for our analysis of this aspect of the proposed CAM.
Make appropriate trade-offs between simplicity and accuracy	Admin costs to schemes	Achieving a perfect allocation across multiple services/products risks the methodology becoming too complex, and consequently, not understood by regulators, customers, employees and other stakeholders. Forecast direct labour is a simple CAB that is easily measurable across all of SunWater's schemes. However, labour costs have very little association with a number of centralised overhead and indirect functions. See below for further discussion of appropriate CABs for key overhead functions.

Guiding principle	Cost allocation 'phase'	SunWater's alignment with principle
	Total scheme costs to customers	The method of allocation to customer groups is both accurate and simple so long as the following assumptions are correct: • The operating costs incurred in the delivery of a HP WAE are equal to those incurred in the delivery of a MP WAE, making WAE a suitable method of allocation • The capital costs incurred in the delivery of a HP WAE are not the same as those incurred in the delivery of a MP WAE, making HUF a suitable method of allocation as it takes into account this cost differential
Be aligned with other players in the industry	Admin costs to schemes	An assessment of industry peers is a useful input when assessing the reasonableness of a CAM. Benchmarking has inherent flaws due to differences in size, structure and location between a business and its comparators. Our case studies in Appendix A highlight best practice in the context of the Australian water and electricity distribution industries. It is important to note that that regardless of which industry a utility operates in, the issue of allocating costs on a causal basis needs to be overcome with a robust CAM. However as the case studies reveal there is no discernible trend in CAMs across comparable utilities.

4.2.4 Sensitivity analysis of alternative drivers

The following section represents our views on appropriate CABs for a number of key overhead functions. Through our MAE analysis and a workshop conducted with key SunWater personnel and QCA staff, alternative CABs for each function were agreed upon. These CABs are shown below in Table 4-5.

Table 4-5 Alternative drivers for key SunWater functions

Function	Cost ($m)	Potential CABs		
		1	2	3
Human Resources	1.7	FTEs	Direct costed labour	Direct total cost
Finance	2	Transactions	Direct costed labour	Direct total cost
Strategy and Stakeholder Relations	1.5	Customer numbers	Direct costed labour	Service Contract
Health, Safety, Environment and Quality	1.4	FTEs	Direct costed labour	Direct total cost
Legal and Property	0.6	Direct costed labour	Direct total cost	Customer numbers
Procurement	0.6	Direct total cost	Transactions	Direct costed labour
Information and Communications Technology	4.3	FTEs	Direct costed labour	Direct total cost
Infrastructure Management (IM) Regions	10.3	Direct costed labour	Direct costed labour (targeted)	Direct total cost

Function	Cost ($m)	Potential CABs		
		1	2	3
IM - Asset Management	5.6	Direct costed labour	Direct total cost	Asset value
IM - Water Accounts	5.6	Customer numbers	Direct total cost	Direct costed labour
IM - General Manager and Service Delivery	2.4	Direct total cost	Direct costed labour	FTEs
Infrastructure Development	3.4	Direct costed labour (targeted)	Direct costed labour	Direct total cost
Board, CEO, Internal Audit and Corporate GM (not modelled)	1.7	N/A	N/A	N/A

Notes: Direct total cost excludes 90% of electricity costs in order to not penalise Service Contracts with high pumping costs, which are fixed relative to overhead and indirect costs; Transaction data is the volume of all SAP transactions (primary and secondary) attributable to Service Contracts; FTE data is unavailable so we have used direct booked hours data as a proxy. This is because staff are employed by Resource Centres rather than Service Contracts and charge labour costs to Service Contracts as work is performed; The difference between the total costs of these functions and the amount of overhead and indirect cost allocated in our modelling analysis is the $1.4m of cost allocated directly to Service Contracts as a 5% materials charge.

For each SunWater function, the following section presents the purpose of each function, the logic for choice of alternative CABs, the results of the sensitivity analysis and our recommended CAB or further considerations.

Human Resources (HR)

The HR function's primary purpose is to provide support to an organisation's employees in the form of recruitment, training and other guidance.

The most identifiable cost driver for HR cost is likely headcount. That is, an additional employee hired to perform duties in a Service Contract results in greater effort required from HR in order to fulfil its purpose outlined above. Headcount is also superior to FTEs due to the fact part-time employees are likely to require the same level of HR support as do full-time employees. However, headcount data for each Service Contract is not available as SunWater staff are not employed by Service Contracts. Instead, staff are employed by Resource Centres and charge labour costs to Service Contracts as work is performed. FTEs and direct labour costs are good proxies for headcount given the strong correlation that would likely exist between these variables.

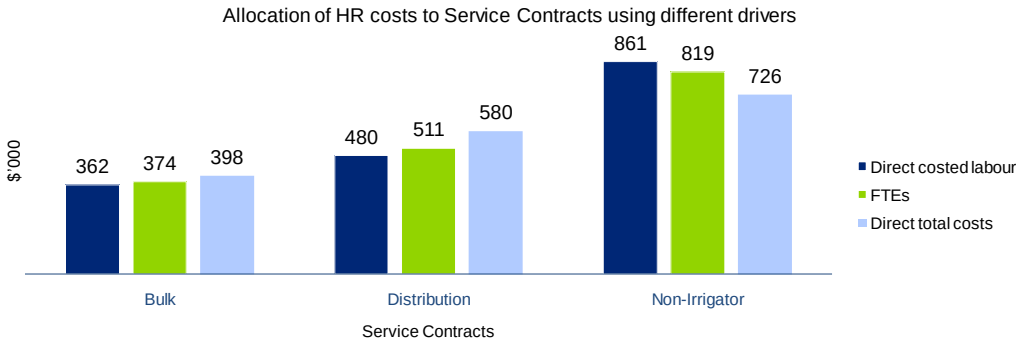
Function	Cost ($m)	Potential CABs		
		1	2	3
Human Resources	1.7	FTEs	Direct costed labour	Direct total cost

Figure 4-1 below shows the impact of using different CABs to allocate HR costs to bulk, distribution and non-irrigator Service Contracts.
Under the base case of direct costed labour, bulk Service Contracts are allocated $362k of HR costs, distribution $480k and non-irrigator $861k. In comparison to costed labour, allocating HR costs using:

- FTEs increases the costs for bulk and distribution Service Contracts by 3% and 6% respectively, while decreasing non-irrigator costs by 5%
- Direct total cost increases bulk and distribution Service Contract costs by 10% and 21% respectively and decrease costs going to non-irrigator customers by 16%.

Figure 4-1 Allocation of HR costs to Service Contracts using different CABs

Human Resources
$1.7 million



Percentage change in allocation of HR costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
FTEs	3%	6%	-5%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement to both direct costed labour and FTEs.

Taking the nominal difference in outcomes between direct costed labour and FTEs into account and in the interests of simplicity we recommend that direct costed labour is used as the allocator or HR costs.

Finance

The Finance function's major activities include processing transactions (i.e. invoices, accounts receivable and accounts payable), providing management with tax advice, monthly and ad-hoc financial reports, and carrying out budgeting, modelling and forecasting using the SunWater Financial Model.

The reporting, budgeting and forecasting elements of the Finance function's role are integral to the financial health of any business. These activities, which are the responsibility of approximately 14 out of Finance's 23 FTEs, are largely driven by the size and complexity of the business. Direct costed labour is considered at least as good as any alternative driver of size and complexity (i.e. direct total cost, FTEs), making a more suitable CAB difficult to identify.

However, the most suitable driver for the transactional element of the function's effort, which accounts for approximately eight FTEs (of 23 FTE), is a transaction-based metric. That is, the more transactions deriving from a particular Service Contract, such as customer invoices or accounts payable, the greater the time and effort required by Finance to process these transactions.

The results presented below are based on available transactional data, which is the volume of all SAP transactions (primary and secondary) attributable to Service Contracts. A more

accurate distribution of costs according to transactions would be achieved if it was made on the basis of data containing only transactions relating to customer accounts such as invoices, accounts receivable and so on.

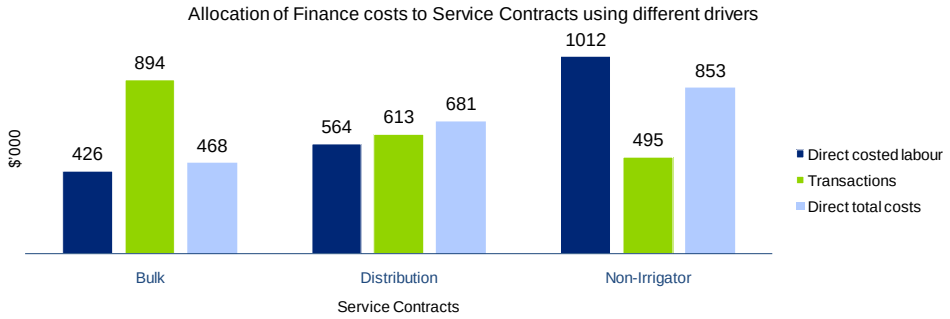
Function	Cost ($m)	Potential CABs		
		1	2	3
Finance	2	Transactions	Direct costed labour	Direct total cost

Figure 4-2 shows the impact of using different CABs to allocate Finance costs to bulk, distribution and non-irrigator Service Contracts.
Under the base case of direct costed labour, bulk Service Contracts are allocated $426k of Finance costs, distribution $564k and non-irrigator $1,012k. In comparison to costed labour, allocating Finance costs using:

- Transactions more than doubles bulk Service Contracts costs, while distribution costs increase by 9% and non-irrigator costs decrease by 51%
- Direct total cost increases bulk and distribution Service Contracts costs by 10% and 21% respectively, while decreasing non-irrigator costs by 16%.

Figure 4-2 Allocation of Finance costs to Service Contracts using different CABs

Finance
$2 million



Percentage change in allocation of Finance costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Transactions	110%	9%	-51%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Taking into account that transaction processing is roughly one-third of the function's effort, we do not consider it to be superior to direct costed labour if used as the single allocator for all of Finance.

We consider direct total cost to be equally as good as direct costed labour in acting as a proxy for the size and complexity of the business. Consequently, we do not recommend switching to direct total cost as it does not necessarily have a stronger causal relationship with Finance effort.

The most accurate way of allocating finance costs would be to use direct costed labour to allocate the reporting, budgeting and forecasting aspect of Finance (approximately 14 out of 23 FTEs) and transactions for the transactional aspect of Finance (approximately 8 out of 23 FTEs). We recognise however that this allocation would come at the expense of simplicity. Also, as mentioned above, the transactional data in this analysis is not necessarily the best data for the driver. Transactions relating only to customer accounts such as invoices, accounts receivable etc. are more suitable.

Given the distinction between the various activities within Finance and the size of its overhead cost (approximately $2 million) there is merit in investigating the feasibility of using multiple allocators. If a single CAB was preferred, however, there does not appear to be a better alternative to direct costed labour.

Strategy and Stakeholder Relations (SSR)[12]

SSR's responsibilities include facilitating effective external and internal communication (i.e. website and intranet), engaging with external stakeholders (i.e. ministerial enquiries) and a range of compliance-related duties involving ROPs and ROLs.

The broad range of activities carried out by SSR makes a more suitable cost driver than direct costed labour difficult to identify. Approximately half of its ten FTEs (excluding management) carry out corporate relations (including internal and external communications), while the other half are responsible for water planning and business strategy (including ROP and ROL compliance, liaising with OGOC and regulatory submissions).

An increase in the number of Service Contracts may result in greater effort required from Strategy in order to fulfil its compliance obligations. However, the range of compliance obligations and thus effort required by SSR varies greatly between individual Service Contracts, meaning that equal apportionment of SSR costs to each Service Contract would likely result in a perverse outcome.

Customer numbers represents an alternative to Service Contracts, as it likely captures the effort required by SSR to manage its customer-related external communications, comprised largely of its internet web site. However, this represents a negligible amount of cost and effort relative to that required by SSR staff in carrying out other activities, which is not captured by this driver. These activities include responding to other external stakeholder such as government and suppliers, internal communications management and water planning.

Function	Cost ($m)	Potential CABs		
		1	2	3
Strategy and Stakeholder Relations	1.5	Customer numbers	Direct costed labour	Service Contract

Figure 4-3 shows the impact of using different CABs to allocate SSR costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of costed labour, bulk Service Contracts are allocated $535k of SSR costs, distribution $412k and non-irrigator $548k. In comparison to costed labour, allocating SSR costs using:

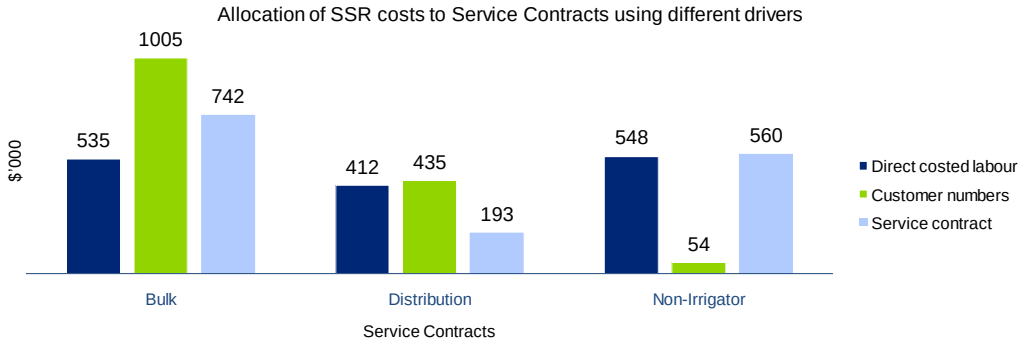
- Customer numbers almost doubles bulk costs, while distribution costs increase by 6% and non-irrigator costs decrease sharply by 90%
- Service Contracts increases bulk costs by 39%, decreases distribution costs by 53% while negligibly changing non-irrigation costs.

[12] The costs of the Strategic Water Management and Irrigation Pricing Indirect Cost Centres are included in our reallocation of Strategy and Stakeholder Relations costs.

Figure 4-3 Allocation of SSR costs to Service Contracts using different CABs

Strategy and Stakeholder Relations (SSR)

$1.5 million



Percentage change in allocation of SSR costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Customer numbers	88%	6%	-90%
Service contract	39%	-53%	2%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Due the variability between Service Contracts, we consider apportioning SSR costs equally to each Service Contract would yield a suboptimal outcome.

Given that responding to customer enquiries constitutes only a small proportion of the function's effort, we do not consider customer numbers to be a superior allocator to direct costed labour. Furthermore, we have concerns in regard to the data available for customer numbers, the use of which to allocate costs may result in a perverse outcome. This concern is based on the fact that the definition of a 'customer' is very broad and encompasses many different water users with varying needs such as irrigators, hobby farmers, hydroelectricity plants and mining operations.

As neither customer numbers nor Service Contract represent improvements upon direct costed labour as drivers of SSR effort and cost, we recommend that direct costed labour is used as the allocator of SSR costs.

Health, Safety, Environment and Quality (HSEQ)

HSEQ's primary role is to ensure employee awareness of, and compliance with, health and safety and quality guidelines. This function is also responsible for SunWater's compliance with regulations concerning the environment, such as the protection and enhancement of flora and fauna in water supply schemes.

Approximately four of HSEQ's 15 FTEs (excluding management) carry out health, safety and quality related tasks, making direct costed labour or FTEs suitable drivers for this element of the function. In being a superior proxy for headcount, FTEs may be slightly better suited as these activities are largely driven by headcount, rather than labour costs.

However, a large proportion of roles in HSEQ (approximately 11 FTEs) carry out tasks that are difficult to determine cost driver/s for, including incident investigation and environmental projects.

Function	Cost ($m)	Potential CABs		
		1	2	3
Health, Safety, Environment and Quality	1.4	FTEs	Direct costed labour	Direct total cost

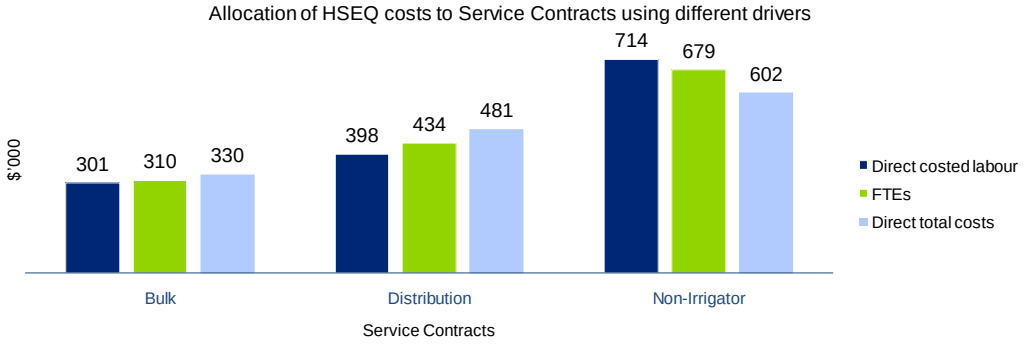
Figure 4-4 shows the impact of using different CABs to allocate HSEQ costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $301k of HSEQ costs, distribution $398k and non-irrigator $714k. In comparison to costed labour, allocating HSEQ costs using:

- FTEs increases costs apportioned to bulk and distribution Service Contracts by 3% and 6% respectively, while non-irrigator costs fall by 5%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts of 10% and 21% respectively, while decreasing by 16% the costs going to non-irrigator customers.

Figure 4-4 Allocation of HSEQ costs to Service Contracts using different CABs

Health, Safety, Environment and Quality (HSEQ)
$1.4 million



Percentage change in allocation of HSEQ costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
FTEs	3%	6%	-5%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement to both direct costed labour and FTEs.

Despite FTEs being slightly better suited to allocating the health and safety component of HSEQ compared to direct costed labour, there is a nominal difference in outcomes between the two. In the interests of simplicity we recommend that direct costed labour is used to allocate HSEQ costs.

Legal and Property

Legal and property's responsibilities include many of the commercial and regulatory obligations of the business, management of contracts and licences and the provision of corporate counsel.

The broad range of activities carried out by Legal and Property makes a more suitable cost driver than direct costed labour difficult to identify.

One potential driver for the contract and licence management aspect of Legal and Property effort is customer numbers. This is because some SunWater's customers use its land for purposes such as moving livestock across, thereby requiring licensing. However, customer numbers will likely not better capture effort better than direct costed labour due to the wide range of activities performed by Legal and Property. As noted above, we also have concerns in regard to the data available for customer numbers.

Alternatively, direct total costs may capture the fact that the largest Service Contracts by cost may require more licensing, contract management and general effort from Legal and Property. However, it is not clear that direct total cost accounts for this general effort more so than direct costed labour does, making it difficult to recommend the former over the latter.

Function	Cost ($m)	Potential CABs		
		1	2	3
Legal and Property	0.6	Direct costed labour	Direct total cost	Customer numbers

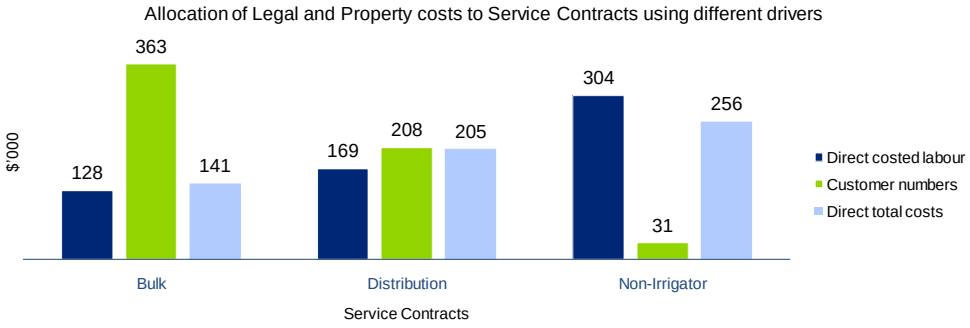
Figure 4-5 shows the impact of using different CABs to allocate Legal and Property costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $128k of Legal and Property costs, distribution $169k and non-irrigator $304k. In comparison to costed labour, allocating Legal and Property costs using:

- Customer numbers increases bulk Service Contracts costs by almost twofold, while distribution costs increase by 23% and non-irrigator costs decrease sharply by 90%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts by 10% and 21% respectively, while decreasing by 16% the costs going to non-irrigator customers.

Figure 4-5 Allocation of Legal and Property costs to Service Contracts using different CABs

Legal and Property
$0.6 million



Percentage change in allocation of Legal and Property costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Customer numbers	183%	23%	-90%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement to both direct costed labour and customer numbers.

In light of customer-related contract and licence management constituting only one aspect of Legal and Property effort and the concerns noted previously, we do not consider customer numbers to be a superior allocator either.

Consequently, we recommend that direct costed labour is used to allocate Legal and Property costs.

Procurement

Procurement's primary purpose is to facilitate the most efficient purchasing arrangements with suppliers and vendors for materials.

A transaction-based CAB may be suitable to allocate Procurement costs, such as the number of invoices received from suppliers or the number of suppliers. Alternatively, direct total cost is likely superior to direct costed labour, as the schemes responsible for incurring the highest costs would as a general rule also incur the highest cost in procuring materials and therefore require more support from Procurement. Using total rather than labour costs is necessary to allow the driver to capture the non-labour aspects of costs that are likely responsible for driving Procurement effort.

The results presented below are based on available transactional data, which is the volume of all SAP transactions (primary and secondary) attributable to Service Contracts. A more accurate distribution of costs according to transactions would be achieved if it was made on the basis of data containing only transactions relating to suppliers, vendors and contractors etc.

Function	Cost ($m)	Potential CABs		
		1	2	3
Procurement	0.6	Direct total cost	Transactions	Direct costed labour

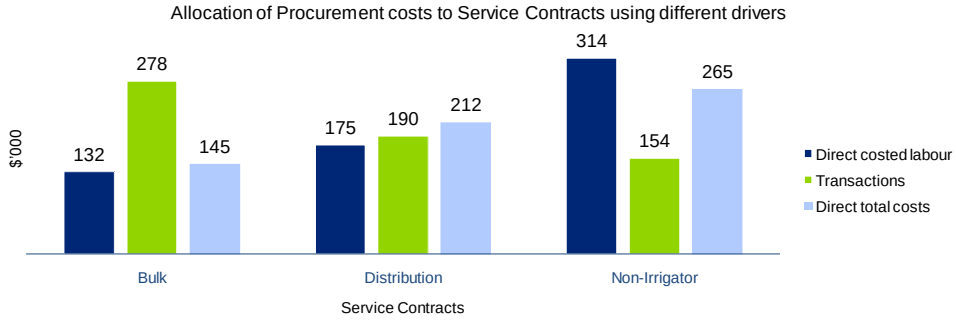
Figure 4-6 shows the impact of using different CABs to allocate Procurement costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $132k of Procurement costs, distribution $175k and non-irrigator $314k. In comparison to costed labour, allocating Procurement costs using:

- Transactions more than doubles the costs apportioned to bulk Service Contracts, while distribution costs increase by 9% and non-irrigator costs decrease by 51%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts by 10% and 21% respectively, while decreasing non-irrigator costs by 16%.

Figure 4-6 Allocation of Procurement costs to Service Contracts using different CABs

Procurement
$0.6 million



Percentage change in allocation of Procurement costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Transactions	110%	9%	-51%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

If the necessary data were available, we recommend that the volume of transactions per Service Contract is the most appropriate driver of Procurement cost and effort, and thereby CAB). Alternatively, we recommend direct total cost be used as the basis of allocation for Procurement cost if such data was not available.

Information and Communications Technology (ICT)

The ICT function's responsibilities include the provision of internal technical support to employees. ICT is also responsible for maintaining three key systems that support SunWater's operations: SWIMs, SAP and Hummingbird. The effort required to maintain and develop these systems is largely fixed and driven by the size and complexity of a business.

The effort and cost required to deliver internal support is largely dependent on the number of employees, making direct costed labour and FTEs suitable drivers of ICT effort. However, only four out of 28 FTEs are responsible for provision of technical support to staff, while 14 carry out infrastructure support and business systems analysis and development. The remainder are responsible for information management and governance and SunWater's library function, which are roles driven to an extent by staff requirements. This makes a more suitable cost driver than direct costed labour difficult to identify.

Function	Cost ($m)	Potential CABs		
		1	2	3
Information and Communications Technology	4.3	FTEs	Direct costed labour	Direct total cost

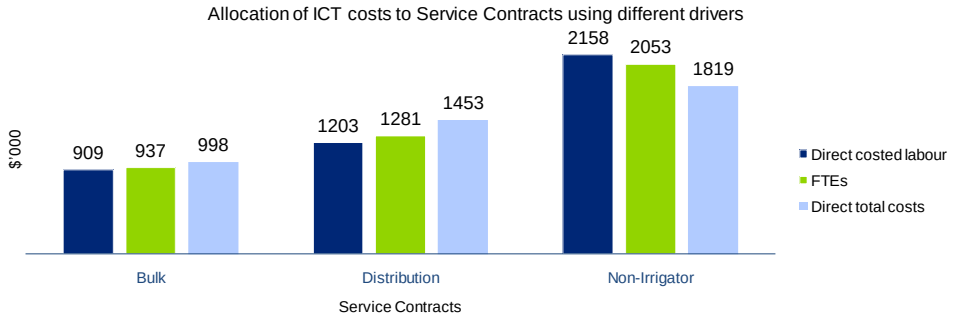
Figure 4-7 shows the impact of using different CABs to allocate ICT costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $909k of ICT costs, distribution $1,203k and non-irrigator $2,158k. In comparison to costed labour, allocating ICT costs using:

- FTEs increases the costs apportioned to bulk and distribution Service Contracts by 3% and 6% respectively, while decreasing non-irrigator costs by 5%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts by 10% and 21% respectively, while decreasing non-irrigator costs by 16%.

Figure 4-7 Allocation of ICT costs to Service Contracts using different CABs

Information and Communications Technology (ICT)
$4.3 million



Percentage change in allocation of ICT costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
FTEs	3%	6%	-5%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement to both direct costed labour and FTEs. Taking the nominal difference in outcomes between direct costed labour and FTEs into account and in the interests of simplicity we recommend that direct costed labour is used to allocate ICT costs.

Infrastructure Management (IM) - Regions (Far North, Central, South and North)

Each regional office is managed by an area operations manager, who is responsible for providing management of the jurisdiction's staff and ensuring customer service standards met. The majority of SunWater's staff that are "on the ground" carrying out day-to-day operations and maintenance are also employed by these Resource Centres.

Employees in these regions predominantly charge their time and expenses directly to Service Contract. The remaining costs to be allocated via a CAB are non-utilised labour costs and those costs that cannot be directly charged. As such, an alternative way of distributing these costs is to "target" them on the basis of the labour charges made by each Region to particular Service Contracts. In other words, if the Burdekin-Haughton bulk Service Contract receives only labour charges from IM – Far North, then Burdekin-Haughton will only receive overhead from that IM Regions Resource Centre. However, in using this approach, IM – Far North overhead costs will be allocated to just these Service Contracts receiving labour charges from IM – Far North, rather than across the entire business. The same will apply to the other three IM – Regions Resource Centres.

Function	Cost ($m)	Potential CABs		
		1	2	3
Infrastructure Management (IM) Regions	10.3	Direct costed labour	Direct costed labour (targeted)	Direct total cost

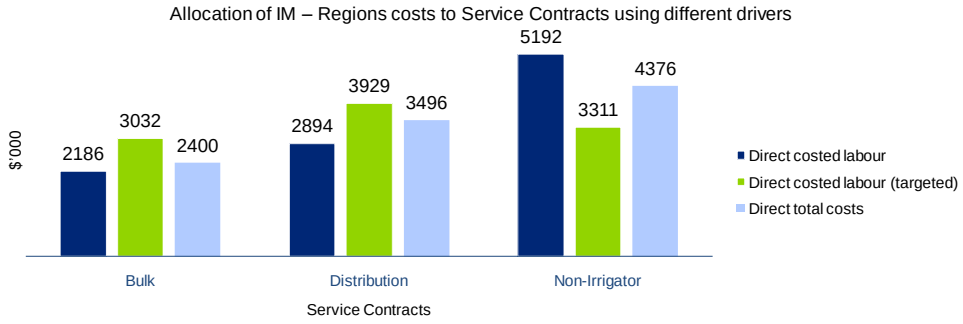
Figure 4-8 shows the impact of using different CABs to allocate IM - Regions costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $2.2m of IM – Regions costs, distribution $2.9m and non-irrigator $5.2m. In comparison to costed labour, allocating IM - Regions costs using:

- "Targeted" direct costed labour increases the costs apportioned to bulk and distribution Service Contracts by 39% and 36% respectively, while decreasing non-irrigator costs by 36%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts by 10% and 21% respectively, while decreasing non-irrigator costs by 16%.

Figure 4-8 Allocation of IM – Regions costs to Service Contracts using different CABs

Infrastructure Management (IM) – Regions
$10.3 million



Percentage change in allocation of IM – Regions costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Direct costed labour (targeted)	39%	36%	-36%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement upon direct costed labour or its "targeted" variant. Instead, we recommend the use of 'targeted' direct costed labour to allocate IM – Regions costs. This approach ensures that non-utilised labour costs are most accurately apportioned out to the Service Contract they derive from, rather than being spread out across the entire business.

Despite the significant increase in the costs allocated to bulk and distribution customers from IM - Regions, this outcome needs to be considered together with the results of a similar

reallocation conducted for Infrastructure Development overhead costs. This is because while irrigator Service Contracts receive the majority of the labour charges made from IM – Regions and therefore the associated overhead, the majority of labour charges from ID are directed at non-irrigator Service Contracts. Further explanation and analysis on this matter is provided in the Infrastructure Development section located towards the end of this chapter.

IM - Asset Management[13]

Asset Management's primary function is to provide schedules of work for SunWater's broad suite of capital assets, which are then reviewed by schedulers in the regions and carried out by the appropriate staff.

Direct total cost is a potential alternative to direct costed labour, as this driver captures the capital component of expenditure along with other operations and maintenance costs. This is necessary because larger Service Contracts, as measured by cost, will likely require more work plans to manage and construct their capital projects, with Asset Management holding responsibility for the creation of these plans.

Alternatively, asset value may best capture Asset Management effort, as the greater the value of a Service Contract's assets, the more work plans are required to manage those assets. However, the diverse range of characteristics exhibited by SunWater's broad suite of assets makes this relationship difficult to establish. This is because an aging asset with relatively low asset value may require the development of an extensive work plan in order to be maintained in proper working condition, while the opposite may apply to a modern, high-value asset.

Function	Cost ($m)	Potential CABs		
		1	2	3
IM - Asset Management	5.6	Direct costed labour	Direct total cost	Asset value

Figure 4-9 shows the impact of using different CABs to allocate Asset Management costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $2m of Asset Management costs, distribution $2.2m and non-irrigator $1.4m. In comparison to costed labour, allocating IM – Asset Management costs using:

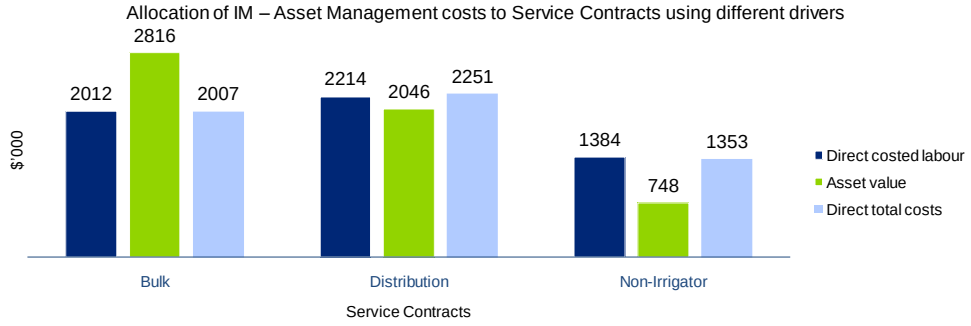
- Asset value increases the costs apportioned to bulk Service Contracts by 40%, while decreasing distribution and non-irrigator costs by 8% and 46% respectively

[13] The costs of the Dam Safety, Headworks, Strategy and Systems, Pump Stations and Pipelines, Irrigation and Drainage and Water and Waste Water Indirect Cost Centres are included in our reallocation of Asset Management costs.

- Direct total cost results in no change to the costs apportioned to bulk Service Contracts, while distribution and non-irrigator costs increase and decrease by 2% respectively.

Figure 4-9 Allocation of IM – Asset Management costs to Service Contracts using different CABs

Infrastructure Management (IM) – Asset Management
$5.6 million



Percentage change in allocation of IM – Asset Management costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Asset value	40%	-8%	-46%
Direct total costs	0%	2%	-2%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Asset value is not considered to be an improvement to direct costed labour and direct total costs due to the wide variability in asset characteristics. However, we consider that direct total cost should be used as the basis for allocating Asset Management costs, as by taking into account capital expenditure it better captures the effort of Asset Management staff.

IM - Water Accounts[14]

Water Accounts' three areas of responsibility are the provision of customer support in WAE matters, water accounting and hydrographic services.

Approximately seven out of 16 FTEs are responsible for the customer support component of Water Accounts including customer enquiries, billing, processing of transactions and SWIMS operation. Customer numbers is a strong driver for this aspect of the function, as those Service Contracts with the most customers will likely generate the most WAE-related, enquiries, which are subsequently resolved by Water Accounts.

However, customer numbers only captures less than half of the function's effort, as the water accounting and hydrographic services components of the function are largely driven by compliance requirements, the operational needs of the business and the size and scale of a business. This makes it is difficult to identify a suitable cost driver for this aspect of Water Accounts.

[14] The costs of the Customer Support, Hydrographic Services and Water Accounting Indirect Cost Centres are included in our reallocation of Water Accounts costs.

Direct costed labour and direct total cost are potential drivers of the non-customer support element of Water Accounts, as these drivers capture the size of Service Contracts and it may be that the largest Service Contracts receive the most benefit from Water Accounts in regard to compliance and operational needs. However, it is not clear that direct total cost accounts for this benefit more so than direct costed labour does.

Function	Cost ($m)	Potential CABs		
		1	2	3
IM - Water Accounts	5.6	Customer numbers	Direct total cost	Direct costed labour

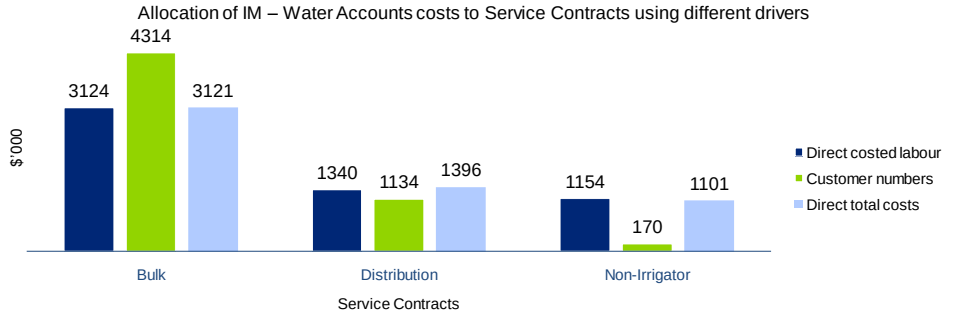
Figure 4-10 shows the impact of using different CABs to allocate Water Accounts costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $3.1m of Water Accounts costs, distribution $1.3m and non-irrigator $1.2m. In comparison to costed labour, allocating IM – Water Accounts costs using:

- Direct total cost results in no change to the costs apportioned to bulk Service Contracts, while the costs allocated to distribution and non-irrigator customers increase and decrease by 4 and 5% respectively
- Customer numbers increases the costs apportioned to bulk Service Contracts by 38%, while distribution and non-irrigator costs decrease by 15% and 85% respectively.

Figure 4-10 Allocation of IM – Water Accounts costs to Service Contracts using different CABs

Infrastructure Management (IM) – Water Accounts
$5.6 million



Percentage change in allocation of IM – Water Accounts costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Customer numbers	38%	-15%	-85%
Direct total costs	0%	4%	-5%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Despite our concern with the available data, we consider that customer numbers is superior to direct costed labour or direct total cost in driving the customer support component of Water Accounts, which constitutes slightly less than half of the function's effort. However, it

is not a particularly strong driver for the remainder of the function's effort, which may be driven more so by direct costed labour or direct total cost.

An optimal allocation of costs would therefore occur if the customer support aspect of Water Accounts was apportioned on the basis of customer numbers, while the remainder was allocated on the basis of direct costed labour. Adopting this approach would add complexity to the cost allocation methodology, although given the clear separation of staff activities within Water Accounts and the size of its overhead cost (approximately $5.6 million), there may be merit in investigating the feasibility of using multiple CABs. If a single allocator was preferred, however, there does not appear to be a better alternative to direct costed labour.

IM General Manager and Service Delivery[15]

Infrastructure Management's General Manager and the Service Delivery Manager function (which includes a high-level, centralised team of four engineers) are responsible for broad oversight of their respective divisions, including tasks such as long term planning and strategy, providing leadership to management teams and ensuring financial targets are met.

Given the broad nature of these tasks, it is difficult to determine the most suitable driver of effort and cost. However, the attention of senior managers is generally focused on whichever areas have the largest financial impact on the business; making direct total costs a suitable driver. That is, the greater the direct total costs incurred by a Service Contract, the more likely it is that the general oversight of these managers will be directed towards that particular Service Contract.

Function	Cost ($m)	Potential CABs		
		1	2	3
IM - General Manager and Service Delivery	2.4	Direct total cost	Direct costed labour	FTEs

Figure 4-11 shows the impact of using different CABs to allocate IM General Manager and Service Delivery costs to bulk, distribution and non-irrigator Service Contracts.

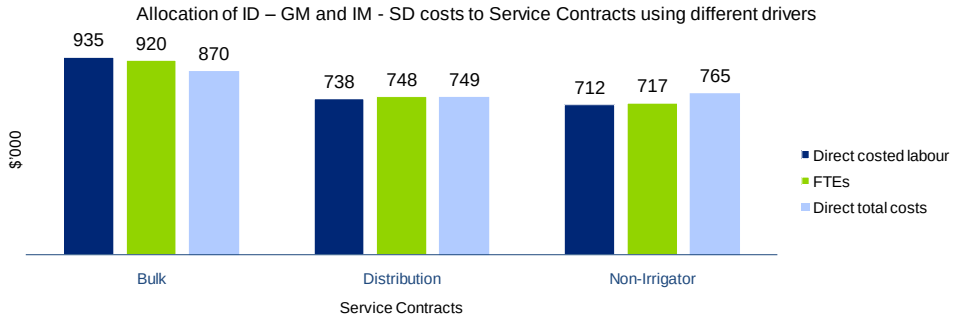
Under the base case of direct costed labour, bulk Service Contracts are allocated $935k of IM General Manager and Service Delivery costs, distribution $738k and non-irrigator $712km. In comparison to costed labour, allocating IM GM and Service Delivery costs using:

- Direct total cost decreases the costs apportioned to bulk Service Contracts by 7% while increasing distribution and non-irrigator costs by 2% and 7% respectively
- FTEs decreases bulk Service Contracts costs by 2%, while distribution and non-irrigator costs increase by 1%.

[15] The costs of the IM General Manager, IM Service Delivery and Flood Room Indirect Cost Centres are included in our reallocation of IM GM/Service Delivery costs.

Figure 4-11 Allocation of IM – GM and Service Delivery costs to Service Contracts using different CABs

Infrastructure Management (IM) – General Manager (GM), IM – Services Delivery (SD)
$2.4 million



Percentage change in allocation of ID – GM and IM - SD costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
FTEs	-2%	1%	1%
Direct total costs	-7%	2%	7%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

We consider that direct total cost is an improvement upon direct costed labour as a driver of the effort and cost required by IM GM and Service Delivery in managing their respective divisions of the business. This is because direct costed labour captures only a subset of a Service Contract's cost while our view is that the greater the cost of a Service Contract, the more likely it is that the attention of these managers will be directed towards that area of the business. Consequently, we recommend direct total cost is used as the allocator of IM GM and Service Delivery costs.

Infrastructure Development (ID) (North, South, Project Management and Project Proposals)

The ID function's main purpose is to design capital works projects, such as the Cotters Dam Enlargement Project. ID staff also lead project management and delivery in cases where specialist input is required or on major projects.

Employees in ID Resource Centres predominantly charge their time and expenses directly to Service Contracts. The remaining costs to be allocated via a driver are non-utilised labour costs and those costs that cannot be directly charged. As such, an alternative way of distributing these costs is to "target" them on the basis of the labour charges made by ID to particular Service Contracts. In other words, if the ID - Feasibilities Service Contract receives significant labour charges from ID Resource Centres (as most ID Service Contracts do) then a large proportion of overhead will be charged to ID - Feasibilities from those Resource Centres. In using this approach, however, ID overhead costs will be allocated to just those Service Contracts receiving labour charges from ID Resource Centres, rather than across the entire business.

A potential alternative to using direct costed labour altogether is direct total cost, as it captures the capital expenditure component of Service Contract costs. This is important

because it is likely that those Service Contracts with the largest capital spend will require more effort from ID in providing ongoing technical advice and project management.

Function	Cost ($m)	Potential CABs		
		1	2	3
Infrastructure Development	3.4	Direct costed labour (targeted)	Direct costed labour	Direct total cost

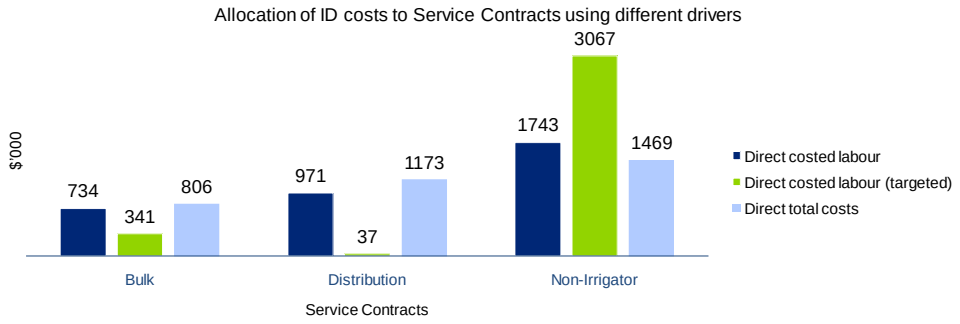
Figure 4-12 shows the impact of using different CABs to allocate ID costs to bulk, distribution and non-irrigator Service Contracts.

Under the base case of direct costed labour, bulk Service Contracts are allocated $734k of ID costs, distribution $971k and non-irrigator $1.7m. In comparison to costed labour, allocating ID costs using:

- "Targeted" direct costed labour decreases the costs apportioned to bulk and distribution Service Contracts by 54% and 96% respectively, while increasing non-irrigator costs by 76%
- Direct total cost increases the costs apportioned to bulk and distribution Service Contracts of 10% and 21% respectively and decreases non-irrigator costs by 16%. However, this driver is not considered to be an improvement to both direct costed labour and its "targeted" variant.

Figure 4-12 Allocation of ID costs to Service Contracts using different CABs

Infrastructure Development (ID)
$3.4 million



Percentage change in allocation of ID costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Direct costed labour (targeted)	-54%	-96%	76%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

Recommendation

Direct total cost is not considered to be an improvement upon direct costed labour or its "targeted" variant. Instead, we recommend the use of "targeted" direct costed labour to

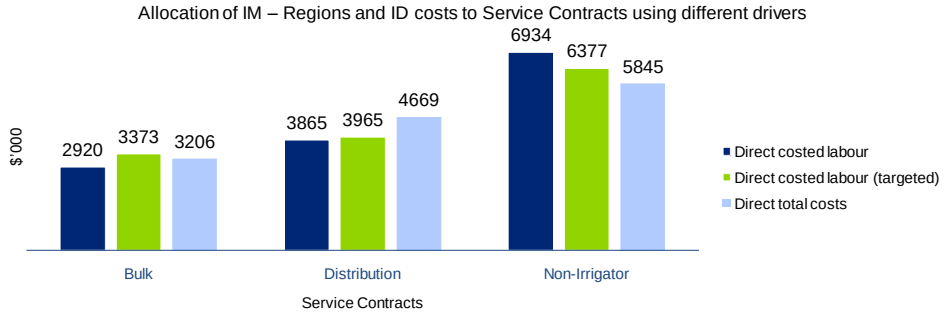
allocate ID costs. This approach ensures that non-utilised labour costs are most accurately apportioned out to the Service Contract they derive from, rather than being spread out across the entire business.

However, if this method of allocating ID costs is implemented then in line with the principle of allocating the same types of costs consistently, IM costs should also be allocated in the same fashion. This is because while non-irrigator Service Contracts receive the majority of the labour charges made from ID and therefore the associated overhead, labour charges from IM are for the most part directed at irrigator Service Contracts. To allocate only, say, ID costs using "targeted" direct costed labour but IM costs using "standard" direct costed labour would result in ID Service Contracts receiving a perversely large amount of overhead cost from IM and ID Resource Centres.

Figure 4-13 shows the outcome of allocating both IM and ID costs using 'targeted' direct costed labour. Compared to when direct costed labour is used, costs allocated to bulk and distribution customers increase by 16% and 3% respectively, while those costs apportioned to non-irrigator Service Contracts decrease by 8%. We consider this apportionment of non-utilised labour costs (along with other IM and ID costs not able to be directly charged to Service Contracts) to those Service Contracts they derive from, rather than being spread out across the entire business, to be a more accurate method of allocating costs.

Figure 4-13 Allocation of IM and ID costs to Service Contracts using different CABs

Infrastructure Management (IM) – Regions and Infrastructure Development (ID)
$13.7 million



Percentage change in allocation of IM – Regions and ID costs compared to allocation using direct costed labour

	Bulk	Distribution	Non-Irrigator
Direct costed labour	-	-	-
Direct costed labour (targeted)	16%	3%	-8%
Direct total costs	10%	21%	-16%

Notes: Percentages do not add to 0% due to different denominators.
Direct total costs excludes 90% of electricity costs.

4.2.5 Analysis of the allocation of costs to customer groups

This section presents further analysis of the method proposed by SunWater to allocate total NSP costs to customer groups. For each Service Contract, the total NSP cost to be allocated to each priority group (medium and high-priority WAE holders) is a composite of direct, indirect and overhead costs. This section focuses on the allocation of indirect and overhead, or administration, costs to customers groups.

As outlined in sections 4.1.2 and 4.2.3, SunWater proposes to allocate its O&M costs to priority groups on the basis of each group's volume of WAE, then to each user based on their individual WAE. On the other hand, SunWater proposes to allocate its R&E, or capital, costs to priority groups on the basis of each group's HUF and then to each individual customer on the same basis as with its O&M costs. It is worth noting that SunWater's administration costs are embedded within both the capital and O&M costs that make up total NSP costs.

SunWater's rationale behind this approach is that the O&M costs incurred in the delivery of a HP WAE are the same as those incurred in the delivery of a MP WAE. On the other hand, SunWater consider that the capital costs it incurs in the delivery of a high-priority (HP) WAE are **greater** than those incurred in the delivery of a medium-priority (MP) WAE.

As such, SunWater considers HP customers should be allocated an amount of capital cost that is in proportion to their causality of those costs. In order to achieve this, SunWater proposes to allocate its capital costs via the HUFs it has developed for each priority group in its Service Contracts. The HUF takes into account the greater relative share of storage capacity and according to SunWater, capital costs, associated with HP WAEs. As SunWater considers that as there is no such differential between each priority group in the O&M costs it incurs, it proposes to allocate these costs on the basis of WAE. Figure E and the accompanying notes located in Appendix C provide a worked example of this allocation process.

We have identified two issues of importance in regard to SunWater's proposed method of allocating total NSP costs to its customers.

Firstly, the administration costs to be allocated to customer groups are essentially fixed in respect to the delivery of WAE. This means that regardless of the volume of WAE delivered to customers through its bulk water supply and distribution systems, SunWater incurs the same level of administration costs. Consequently, no relationship can be established between SunWater's administration costs and its priority groups and therefore its individual customers. SunWater propose to address this by 'attaching' its administration costs to direct labour costs, which are categorised as either O&M or capital-related. These two types of cost are then allocated to customer groups according to the rules outlined above.

Secondly, as noted above, both capital and O&M costs contain an element of administration costs. These costs are incurred in providing administration support to the entire business and its employees, regardless of whether a particular employee is carrying out O&M or R&E work. For example, employees in SunWater's HR department, among other things, provide training and career development advice to the business' staff. SunWater's proposed method of allocating costs would result in the costs of these employees, which would primarily be considered administration costs, being allocated in an inconsistent manner that penalises HP customers.

Although the lack of a relationship between administration costs and customers creates difficulties in the allocation of costs, it is not necessarily a flaw that is unique to SunWater's cost allocation methodology, but instead a common challenge faced by businesses when allocating fixed overhead costs to its customers. Allocating to priority groups and then to individual customers on the basis of WAE and HUF implies that there is a relationship between the volume of a customer or customer group's WAE and administration costs. As noted above, these costs are fixed in regard to delivery of WAE. However, despite this complete lack of a causal relationship, administration costs must be allocated using **some** methodology.

For instance, total NSP costs could be divided by the number of customers in a Service Contract, resulting in an equal apportionment of costs to customers. This approach would result in, say, a customer holding a 50ML WAE being allocated the same amount of cost as a customer holding 1ML. Consequently, we consider that SunWater's proposed approach of allocating costs to each priority group based on their WAE results in a superior outcome, due

to the equity issues associated with equal apportionment of costs to each customer. However, this approach implies the existence of a causal relationship between the delivery of WAE and administration costs where one does not exist. Because of this, there is value is considering an alternative approach that allocates administration costs on the basis of the relative benefits received by each priority group. The concept of the Hydrological Utilisation Factor put forward by SunWater provides the basis for such an approach.

According to SunWater, "the proportion of the overall benefit derived from storage headworks by high priority water entitlements is typically greater than their proportion of the total nominal volume of entitlements in a scheme. In other words, the benefits derived from bulk water assets are not shared uniformly between all water entitlements."[16] Consequently, SunWater believes that high priority water entitlements should therefore be apportioned a share of capital costs that is proportionate to these benefits.[17] Our view is that in the absence of an established relationship between administration costs and WAE delivery, there is considerable merit in using a HUF or similar weighted factor to allocate costs on the basis of relative benefits.

Indeed, the price setting process for the 2005-2011 price path involved the use of "water pricing conversion factors", which were an estimate of the relative "hydrologic value" of MP and HP WAEs, similar in concept to the relative benefits received by each priority group. Tier 1's view was that the cost allocation methodology used should "recognise that some water entitlements enjoy a higher priority when available water supplies are being shared, and therefore should be apportioned a higher share of lower bound scheme costs."[18] As noted by SunWater, HUFs are an improvement upon the conversation factors by taking into account a range of information related to the preferential access HP users have in periods of water shortage. However, both factors are underpinned by the concept that HP users receive a greater benefit from SunWater in the delivery of their entitlements and therefore allocate costs on the basis of this differential in benefits.

SunWater cautions against using a benefits approach for O&M costs as it considers that all customers, regardless of their priority level, have the same impact on these costs. However, if HUFs, or a similar weighted factor, are an adjustment based on the differential in the benefits received by customers and not on a differential in the causation of costs, then we consider that the benefits approach represented by HUFs is of relevance to the allocation of **all** administration costs, regardless of whether they are embedded in O&M or capital costs.

We therefore recommend that the administration costs embedded in both capital and O&M costs should be allocated to customer groups on the basis of a weighted factor that takes into account the differential in benefits received by priority groups, such as SunWater's HUF. We consider that such an approach should use WAE as the starting point in developing a weighted factor, as per HUFs, rather than a starting point based on equal apportionment. Lastly, allocating the entirety of SunWater's administration costs in this manner would ensure that these costs are allocated in a consistent fashion, thereby further aligning the methodology with our cost allocation principles.

[16] SunWater 2010, Hydrological utilisation factors – technical report, p. 5, Sunwater, Brisbane

[17] SunWater 2010, Headworks utilisation factors – technical report, p. 5, Sunwater, Brisbane

[18] Tier 1 2005, Tier 1 Working paper no. 18: Water entitlement pricing conversation factors, p. 2, Tier 1, Brisbane

5 Conclusion

5.1 General Comments

This report presents our findings with respect to the review of SunWater's forecast administrative costs. We have worked closely with SunWater to undertake our analysis and have at all times been provided with very good access to SunWater personnel, contractors and data.

5.2 Reasonableness and Prudency of Administrative Costs

Overall SunWater's cost structure benchmarks within expected global benchmark ranges. Our MAE analysis did not identify any major structural issues with the delivery of services (other than the relatively high ICT cost that is being addressed through the SWIMS replacement program). Our final analysis indicates there is an opportunity to reduce administration FTEs by 2.3 – 2.9% (i.e. 4.15 – 5.15 FTE of a total of 178.4 FTE). The main opportunities identified are within the Finance, HR, ICT and HSEQ functions, shown in Table 5-1 below.

Table 5-1 Efficiency Opportunities

SunWater Administration functions

Total FTE = 178.4
Non core FTE = 7 (3.9%)

Function	Total FTE	Non core	Comments on FTE savings (draft report)	Comments on revised savings	FTE saving *(draft report)*	Revised FTE saving
Finance	23	1.2	▪ Accounts payable	▪ No longer applicable	0.5	–
			▪ Manual payment methods	▪ Maintained	0.25	0.25
			▪ Reporting	▪ Maintained	1.0	1.0
			▪ Facilities management	▪ No longer applicable	0.5	-
			▪ Fuel card management	▪ Maintained	0.1	0.1
HR	10	1.8	▪ Recruitment and exit	▪ Maintained	0.5 –1.0	0.5 –1.0
			▪ Industrial Relations	▪ Maintained	0.5	0.5
			▪ Payroll	▪ Maintained	0.5	0.5
Asset Management	38	0.27	▪ No opportunities identified	▪ Maintained	–	–
ICT	28	0.7	▪ Service Desk	▪ No longer applicable	0.5	–
			▪ Library and hard file management	▪ Maintained	0.3	0.3
			▪ Information and strategic advice	▪ Maintained	0.5	0.5
IM service delivery	34.5	0	▪ No opportunities identified	▪ Maintained	–	–
Water Accounts	13.9	0.03	▪ No opportunities identified	▪ Maintained	–	–
SSR	12	1.91	▪ No opportunities identified	▪ Maintained	–	–
HR	19	1.1	▪ Training provision	▪ Maintained	0.5	0.5 –1.0
			▪ HSEQ internal comms	▪ Maintained	0.5	0.5 –1.0
TOTAL	**178.4**	**7**			**6.15 – 7.15**	**4.65 – 5.65**

5.3 Appropriateness of Cost Allocation Methodology

We have identified a number of areas of SunWater's proposed CAM that could be improved and have provided recommendations on alternative CAB for key SunWater functions. The functions we have suggested alternative CAB(s) for are:

- Finance
- Procurement
- IM – Regions (Far north, north, central and south)
- IM – Asset Management
- IM - Water Accounts
- IM GM and Service Delivery
- ID.

With regard to IM – Regions and ID overhead costs, we suggest these are allocated in a more targeted manner based on direct labour charges made from those functions to Service Contracts. This approach ensures that non-utilised labour costs are most accurately apportioned out to the Service Contract they derive from, rather than being spread out across the entire business.

We have recommended that for a number of functions direct costed labour is used to allocate costs, as it is the most suitable driver of effort and cost based on our understanding of each function's purpose and staff activities. These functions included:

- HR
- ICT.

In some cases, direct costed labour may not have been a strong driver of cost however there were no obvious alternative drivers and therefore CABs that would represent an improvement on it. These functions included:

- SSR
- HSEQ
- Legal and Property.

Lastly, some functions were not modelled due to their broad nature in providing governance to SunWater and the unlikelihood that a more suitable driver exists. Consequently, for these functions we recommend direct costed labour is used as the basis for allocation. These functions include:

- Board
- CEO
- Internal audit
- Corporate General Manager.

Table 5-2 summarises the results of our alternative driver modelling, showing for each key SunWater function the CABs modelled, the CAB SunWater proposes to use and our recommendation.

Table 5-2 Summary of CAB recommendations for key SunWater functions

Function	SunWater's proposed CAB	Our recommended CAB(s)	Notes
Human Resources	Direct costed labour	Direct costed labour	
Finance	Direct costed labour	Direct costed labour, transactions	Customer transactions aspect is best allocated by a transactional metric and the remainder by direct costed labour. Transactional data used need to pertain to customer invoices, AR, AP etc.
Strategy and Stakeholder Relations	Direct costed labour	Direct costed labour	
Health, Safety, Environment and Quality	Direct costed labour	Direct costed labour	
Legal and Property	Direct costed labour	Direct costed labour	
Procurement	Direct costed labour	Transactions	Transactions used need to pertain to vendors, suppliers and contractors etc
Information and Communications Technology	Direct costed labour	Direct costed labour	
Infrastructure Management (IM) Regions	Direct costed labour	Direct costed labour (targeted)	Costs are allocated on the basis of IM Regions costed labour
IM - Asset Management	Direct costed labour	Direct total cost	
IM - Water Accounts	Direct costed labour	Direct costed labour, Customer numbers	Customer support aspect is best allocated by customer numbers and the remainder by direct costed labour
IM - General Manager and Service Delivery	Direct costed labour	Direct total cost	
Infrastructure Development	Direct costed labour	Direct costed labour (targeted)	Costs are allocated on the basis of ID costed labour
Board, CEO, Internal Audit and Corporate GM (not modelled)	Direct costed labour	N/A	N/A

In regard to the allocation of costs to customer groups within Service Contracts, we recommend that a weighted factor, such as SunWater's HUF, is used to allocate both capital and O&M costs. This is because in the absence of a relationship between administration costs and WAE delivery, an approach taking into account the relative benefits received by customer groups is preferred.

Appendix A – Case Studies

Goulburn-Murray Water

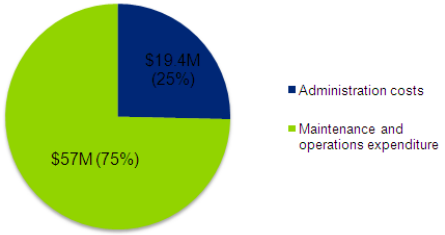
Key facts:[1]

Number of customers: 38,711[2]
Geographic area: 68,000 square km
Services provided include:
- Irrigation (gravity fed and pumped systems)
- Surface water diversion
- Domestic and stock supply
- Bulk water supply to water corporations
- Flood protection
- Commercial (recreational leases, houseboat licences etc).

Cost allocation methodology (CAM):[3]
- Allocates operating costs directly where possible (i.e. technical services costs are allocated directly to areas)
- Costs not able to be directly allocated are allocated using key cost drivers. These overhead costs and their basis for allocation include:
  - HR – budgeted labour expenditure $
  - Finance – budgeted recurrent and capital expenditure $
  - Production – Water Entitlement/license volume/bulk supply volume for relevant retail services
  - Asset Planning - budgeted maintenance and capital expenditure $
  - SSA - budgeted recurrent and capital expenditure $.
- Where a key cost driver cannot be identified, combined operating expenditure and capital expenditure is used.

Geography:[4]

Administration costs as a percentage of total operating costs:[5]



(1) Source: Goulburn-Murray Water 2010, Annual Report 2009-10, p. 1
(2) Figure includes 1,521 commercial operators including houseboat license holders, hydroelectric companies etc
(3) Source: Frontier Economics 2005, G-MW - Review of pricing policies and models, March 2005, p. 175
(4) Source: http://www.g-mwater.com.au/about/regionalmap
(5) Source: National Water Commission 2010, National Performance Report 2008-09 – Rural water service suppliers, p.81

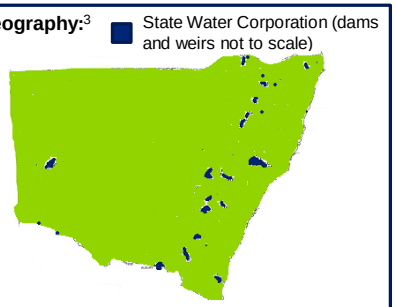
State Water Corporation

Key facts:[1]

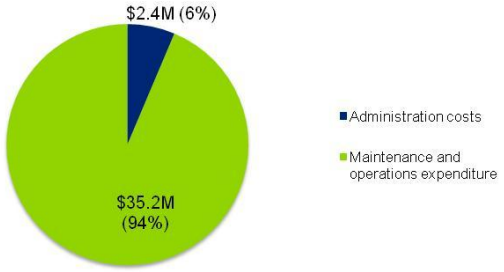
Number of customers: 6,300
Geographic area: 7,000km of river
Services provided include:
- Bulk water delivery for towns, industry, irrigators, stock and domestic use etc.
- Delivery of environmental flows
- Water account management
- Demand management

Cost allocation methodology (CAM):[2]
- Allocates common and indirect costs on the basis of FTEs
- State Water's operations are split into Valleys. Each Valley is allocated an amount of common and indirect costs proportionate to the number of FTEs it employs
- IPART considered that using FTEs as key driver of costs in each Valley was most appropriate, given that labour costs made up, on average, 53% of SWC's total direct costs across all Valleys.

Geography:[3]



Administration costs as a percentage of total operating costs:[4]



(1) Source: State Water Corporation 2010, Annual Report 2009-10, p. 4
(2) Source: IPART 2010, Final Report - Review of Bulk Water charges for State Water Corporation, p. 114
(3) Source: State Water Corporation 2010, Annual Report 2009-10, p. 4.
(4) Source: National Water Commission 2010, National Performance Report 2008-09 – Rural water service suppliers, p.39

Gladstone Area Water Board

Key facts:[1]

Services provided include:
- Bulk water through Awoonga Dam
- Distribution pipelines
- Treatment plants
- Other bulk water infrastructure

Geography:[2]

Cost allocation methodology (CAM):[3,4]

- 'System direct costs' - directly attributable to a pricing zone. Allocated to users according to their share of the zone's throughput
- 'System overhead costs' - attributable to raw water or treated water systems (but not to individual pricing zones). Allocated to each zone on the basis of the zone's share of total system direct costs and then to users according to their share of the zone's throughput.
- 'General admin costs' - not attributable to a particular system or zone. These costs include customer service type costs such as billing, accounts etc and demand-based costs, and are allocated according to the administrative effort in each system (dam, raw water delivery and treated water delivery). This relative administrative effort was approximated by the relative direct operating and maintenance costs per mega litre in each system. Weightings were also produced to better capture the administrative effort required to operate the various systems, which are as follows:
  - 0.5 x ML delivered for supplies out of Awoonga Dam
  - 1.0 x ML delivered for supplies to raw water customers
  - 2.0 x ML delivered for supplies to treated water customers.

(1) Source: Gladstone Area Water Board 2010, Annual Report 2009-10, p. 1
(2) Source: Deloitte analysis
(3) Source: QCA 2005, Final Report - Gladstone Area Water Board: Investigation of Pricing Practices, p.140
(4) Source: QCA 2010, Final Report - Gladstone Area Water Board: Investigation of Pricing Practices, p. 138

SP AusNet

Key facts:[1]

Number of customers: 1,000,000+

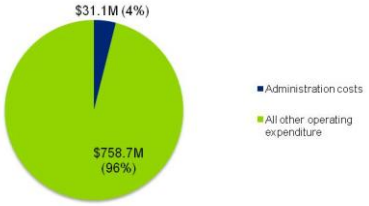
Geographic area:

- Electricity transmission network: 6,500 km
- Electricity distribution network: 47,000 km / 80,000 square km
- Gas transmission and distribution: 9,757 km

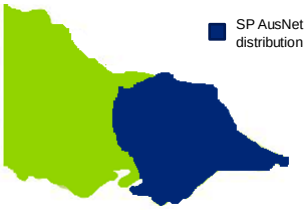
Services provided include:

- Electricity distribution and transmission networks
- Gas distribution network

Administration costs as a percentage of total operating costs:[2]



Geography:[3]



(1) Source: SP AusNet 2010, Business Review 2010, pp. 7-9
(2) Source: SP AusNet 2010, Statutory Annual Report 2010, p. 42. Costs are business-wide and not distribution-only costs.
(3) Source: http://www.sp-ausnet.com.au/?id=230112200D7991BE52741E02BCA25764200022D04

SP AusNet cont.

Cost allocation methodology (CAM) for *electricity distribution network costs*:[1]

- **Direct costs** – costs where there exists a clear 'line of sight' between the costs incurred and a particular assets and/or service are directly attributed to those assets and/or service categories.
- **Shared costs** – costs incurred in providing several categories of distribution services and are allocated between these categories using a causal allocator, except to the extent that the cost is immaterial or a causal relationship cannot be established, in which case a non-causal allocator is used, subject to AER approval. These costs, and their method of allocation, are:
  - non-labour shared costs (i.e. audit fees, insurance costs) – allocated to service categories based on causal cost drivers such as asset values or inventory transactions
  - non-project labour costs – these costs are are generally corporate/overhead in nature and are allocated to service categories based on business-wide, effort-based Activity Based Costing surveys. This process requires managers to accurately complete and submit, on a quarterly basis, their assessment of the split of the residual 'shared' or overhead costs remaining within their reporting cost centre, after the direct attribution of all project-costed labour and non-labour expenditure. The survey is structured to list the key activities performed within the cost centre, with a relevant cost driver, to allocate the shared cost of each activity (e.g. full-time employees (FTE) numbers, asset values, debt balance, revenues)
  - management services costs - allocated to service categories based on effort-based ABC surveys. Management (including executive leadership) are required to complete a survey quarterly, which estimates management effort to determine the allocation of the management service charges between distribution service categories (i.e. to standard control, AMI program and non regulated services). The subsequent allocation of these service charges down to capital and operating cost categories, for regulatory reporting, is based on the direct expenditures incurred in those cost categories. Performance-based management costs are costed to SP AusNet's businesses and reported within management and statutory accounts, however, these fees are not allocated to regulated business segments within regulatory reporting (ie. are directly attributed to the non regulated service category).

(1) Source: SP AusNet 2010, Cost Allocation Methodology, December 2010, p. 16

Country Energy

Key facts:[1]

Number of customers: 800,000+

Geographic area:

- Electricity distribution network: 200,000km
- Gas distribution network: 1,150km
- Gas transmission network: 65km

Services provided include:

- Electricity, gas and water distribution and retail
- Gas transmission

Geography:[2]

Cost allocation methodology (CAM) for *electricity distribution network costs*:[3]

- **Direct costs** - a large number of revenue and expenditure accounts in the general ledger can be directly mapped to Country Energy's distribution network business. For example, operating and maintenance expenditure that can be identified as distribution-specific is directly mapped to distribution based on timesheets, management time, project expenditure and advertising spend.

- **Indirect costs** - costs which cannot be directly allocated to the regulated electricity distribution network business segment are allocated using an appropriate allocation method. The preferred indirect allocation methods outlined in the AER's Code are used where appropriate. Where it is not possible to use the allocation method outlined in the Code the allocation is made on a defensible basis using a suitable allocator. Examples of departments and appropriate allocation methods for their costs are:
  - Corporate Management Departments, Legal, Property etc - allocated based on direct labour
  - Payroll, workforce planning, HR systems - allocated based on employee numbers
  - Information systems - allocated based on information technology usage
  - Customer Services - allocated based on customer numbers.

(1) Source: Country Energy 2010, Annual Report 2009-10, p. 7
(2) Source: Country Energy 2010, Annual Report 2009-10, p. 7
(3) Source: Country Energy 2008, Cost Allocation Method, pp. 3-10

Ergon Energy

Key facts:[1]

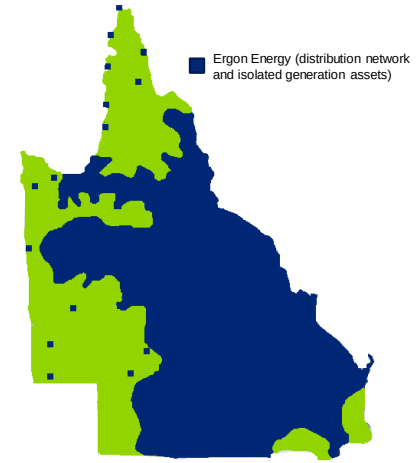
Number of customers: 680,095

Geographic area: 1,700,000 square km

Services provided include:

• Electricity generation, distribution and retail.

Geography:[2]



(1) Source: Ergon Energy 2010, Annual Stakeholder Report 2009-2010, p. 4
(2) Source: Ergon Energy 2010, Annual Stakeholder Report 2009-2010, p. 5

Ergon Energy cont.

Cost allocation methodology (CAM):[1]

- **Direct costs** and their method of allocation are as follows:
  - Payroll costs (allocated via labour hours based on timesheet data)
  - Inventory and materials (inventory items are issued via a requisition to the job based on Ergon's stores' average cost. All stores items also attract an associated charge (oncost) representing administration costs)
  - Fleet charges (allocated to jobs via an 'equipment hire' process, which allocates fleet costs based on a unit charge associated with the particular class of vehicle used)
  - Project/works management costing (purchase orders, field release orders, credit card purchases and other non-order payments are processed directly to jobs).

- **Shared costs** (support costs or overheads) – are allocated to a Line of Business based on the ratio of the direct costs for each Line of Business.

  The three sources of Ergon's shared costs are:

  - Corporate Support Business Units (such as Office of CEO, Corporate Governance, Finance and Strategic Services etc)
  - Costs associated with services provided by SPARQ (a subsidiary company providing internal IT services to Ergon) and EET (telecommunications subsidiary providing high-speed internet to Ergon and external customers)
  - Costs from the Energy Services business unit (the operational part of the business responsible for network-related distribution services) that predominantly represent labour and administration costs that have not been directly attributed. These costs include, but are not limited to, senior management, technical and operations support, including maintenance and construction standards, mapping, technical data records and field investigations and auditing.

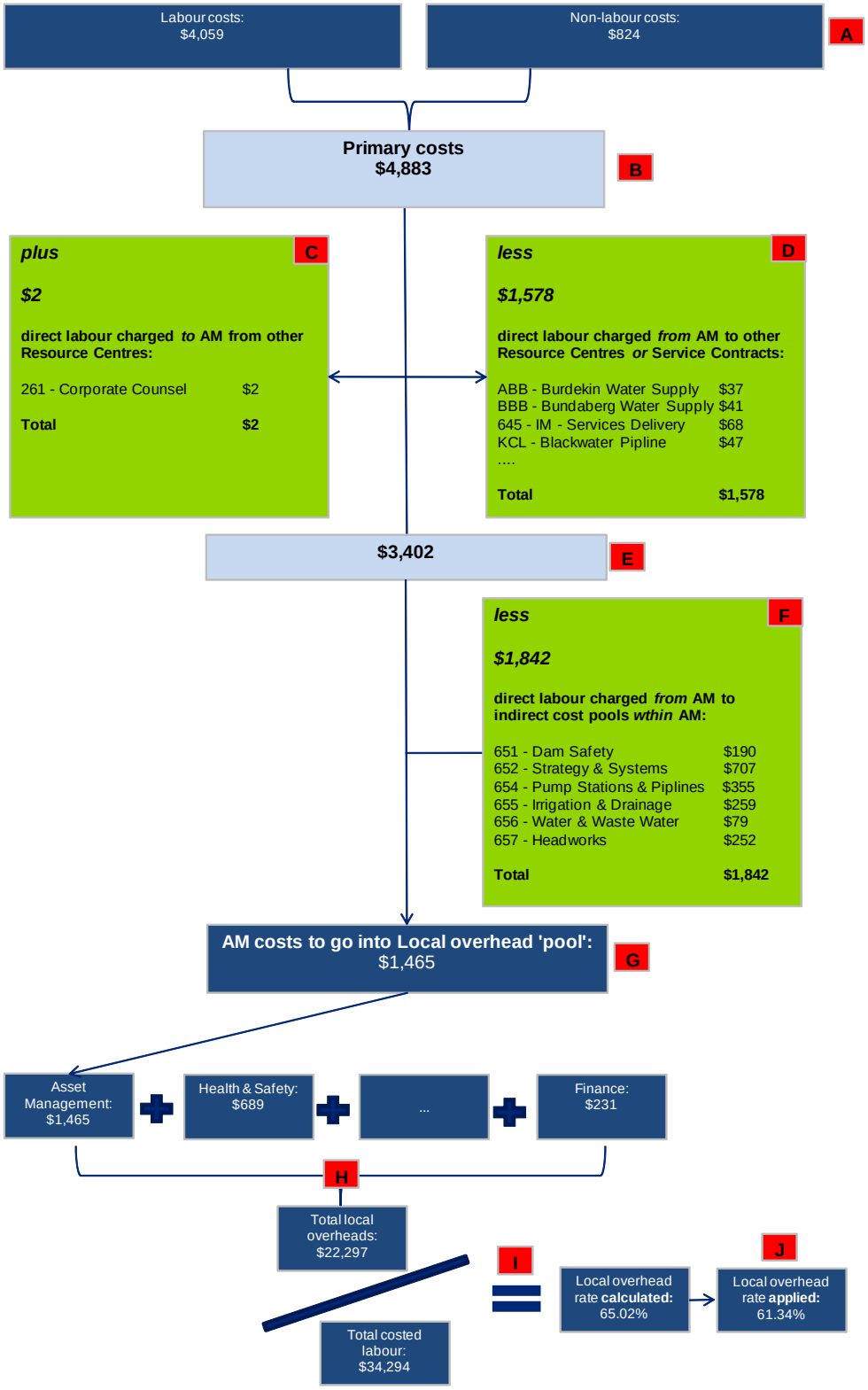
  Shared costs are allocated using a percentage rate for each Line of Business (LoB), which is created from budget data at the start of each financial year. The process is as follows:

  Forecast direct costs for each LoB are used to calculate each LoB's direct operating costs as a proportion of total direct operating costs. For instance, if Customer Service is forecast to have $40M of direct costs out of a total pool of $900M direct costs (40/900 = 4%), Customer Service will then have 4% of each shared cost pool allocated to it. For example, if the total Corporate shared cost pool is $270M, Customer Service will be allocated $12M (4% of $270M), and if the total Energy Services shared cost pool is $30M, Customer Service will be allocated $2M (rounded up from $1.333 for 'grossing up' purposes). This gives a total of $14M of shared costs allocated to Customer Service. This $14M is then divided by Customer Service's forecast direct costs of $40M to calculate a percentage rate of 33%. This rate is the rate that shared costs will be applied to all direct costs posted against the Customer Service Line of Business. For example, if $100 of actual costs are allocated to a Customer Service Activity Code, $33 of shared costs will also be allocated.

(1) Source: Ergon Energy Corporation Limited 2009, Cost Allocation Method

Appendix B – Worked examples of cost allocation to schemes

Figure A: Allocation of Asset Management (local overhead Resource Centre) overhead costs



Notes

A. Labour costs include:
   - Salaries and wages - $2,970
   - Employee related expenses (TOIL, study assistance, staff training, uniforms, professional memberships etc) - $1,089
   - **Total - $4,059.**

   Non-labour costs include:

   - Travel and accommodation - $164
   - Contractors - $72
   - Electricity - $10
   - Materials - $2
   - Plant, equipment and vehicles - $42
   - Occupancy costs - $357
   - Administration costs $176
   - Depreciation costs (not included in primary costs) - $176
   - **Total - $824**

B. Asset Management's primary costs of $4,883 are comprised of the labour and non-labour costs outlined above.

C. $2 of direct labour costs are charged to Asset Management from Corporate Counsel. The $1 of overhead accompanying this costed labour is not added to Asset Management costs, so as not to add 'overheads to overheads'.

D. $1,578 of direct labour costs are charged from Asset Management to other Resource Centres or Service Contracts. For instance, Service Delivery has $68 of costed labour attributed to it from Asset Management.

E. $3,402 represents Asset Management's primary costs, net of direct labour charges to other Resource Centres/Service Contracts and direct labour charges from other Resource Centres.

F. Asset Management is an overhead cost centre that contains a number of Indirect Cost Centres within it. As an indirect cost centre performs work, direct labour costs are transferred from Asset Management's primary costs to the costs of the relevant indirect cost centre. For instance, $190 of Asset Management's labour costs are transferred to Dam Safety. This means that staff members employed by Asset Management have charged $190 of direct labour to Dam Safety, in return for carrying out Dam Safety-related work duties. The sum of all direct labour charged to the six indirect cost pools within Asset Management is equal to $1,842

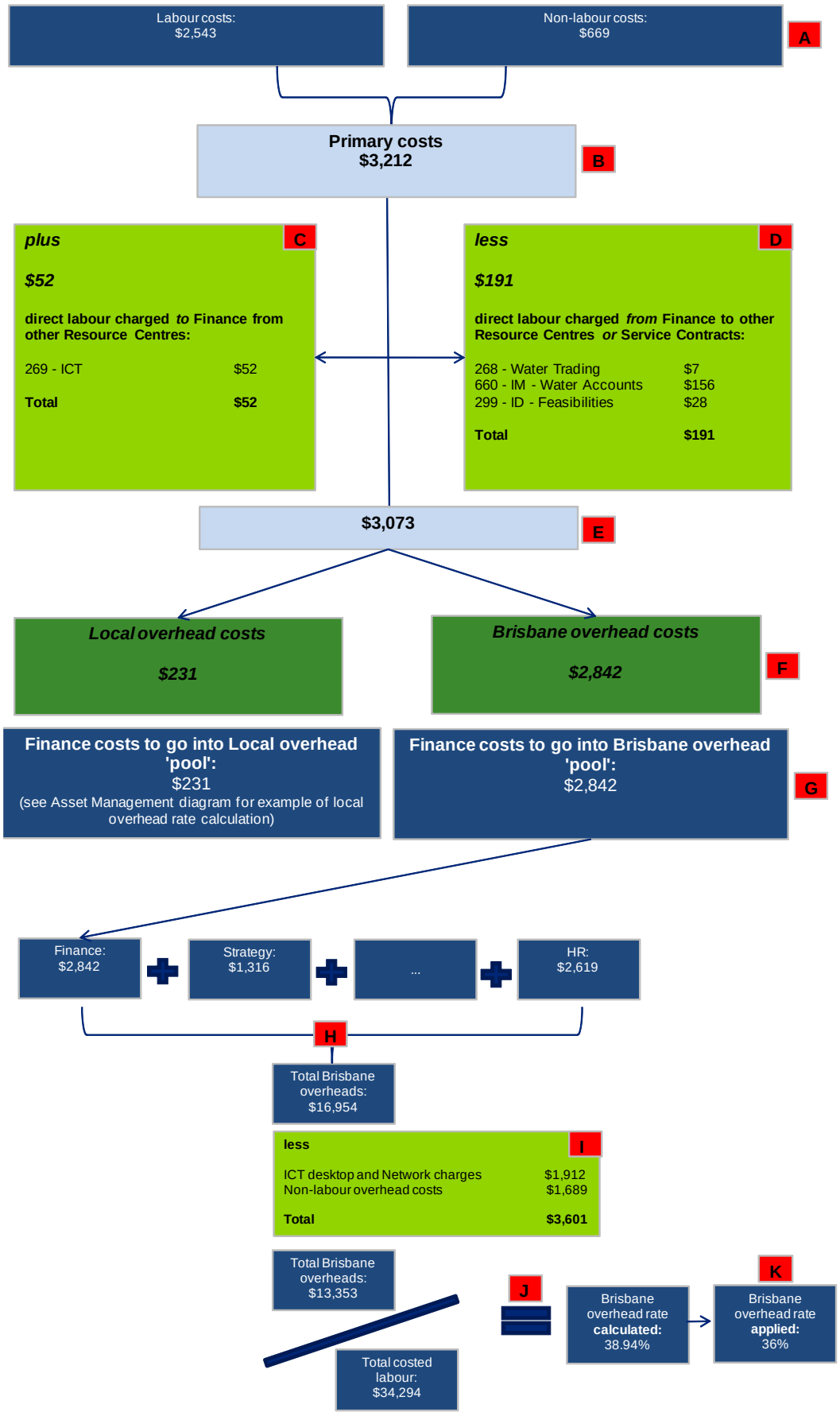
G. Asset Management's local overhead costs are $1,465. This is equal to its primary costs net of direct labour cost transfers between Asset Management, its Indirect Cost Centres, Service Contracts and other Resource Centres

H. Asset Management's local overhead costs of $1,465 are then inputted into the local overhead "pool" of costs, along with the local overheads costs of all other Resource Centres, to form the SunWater-wide local overhead cost pool of $22,297

I. The local overhead cost pool of $22,297 is divided by $34,294 (SunWater's total forecast labour charges to Resource Centres and Service Contracts) to determine a "loading rate" of 65.02%. This rate is then used to apportion the local overhead cost pool across the business; every dollar of direct costed labour charged to a Service Contract or Indirect Cost Centre will attract $0.65 of local overhead. Direct costed labour charged to Resource Centres very rarely attracts overhead, to minimise "overhead on overhead"

J. The actual “loading rate” rate applied as outlined above is 61.34%. This 3.68% downward adjustment is made in order for SunWater to deliberately under recover its costs. SunWater does this as it recognises some of the costs it incurs are for future projects that may not be carried out. This results in $1,261 of the local overhead cost pool not being recovered, which is SunWater’s estimate of the extra costs (i.e. feasibility studies) it is incurring for potential future projects.

Figure B: Allocation of Finance (mixed Resource Centre) overhead costs



Notes

A. Labour costs include:
   - Salaries and wages - $1,836
   - Employee related expenses (TOIL, study assistance, staff training, uniforms, professional memberships etc) - $624
   - Staff contractors – $84
   - **Total - $2,543**

   Non-labour costs include:

   - Travel and accommodation - $22
   - Contractors - $103
   - Electricity - $5
   - Plant, equipment and vehicles - $17
   - Occupancy costs - $261
   - Administration costs $270
   - Depreciation costs (included in primary costs) - $126
   - Other asset costs - $3
   - Financing charges - $21
   - Revenue from consulting fees - ($159)
   - **Total - $669**

B. Finance's primary costs of $3,212 are comprised of the labour and non-labour costs outlined above.

C. $52 of direct labour costs are charged to Finance from ICT.

D. $191 of direct labour costs are charged from Finance to other Resource Centres or Service Contracts. For instance, Water Accounts has $156 of costed labour attributed to it from Finance.

E. $3,073 represents Finance's overhead costs. This is equal to its primary costs net of direct labour charges to other Resource Centres/Service Contracts and direct labour charges from other Resource Centres.

F. Finance is considered to be a combination of a Brisbane and a local overhead Resource Centre, or a "mixed" Resource Centre. As such, its overhead costs needs to be apportioned between the local overhead cost pool and the Brisbane overhead cost pool. The formula to determine the proportion of Finance overhead costs to go into the first of these two pools is as follows:

   Direct labour charges to other RC / labour costs = $191 / $2,543 = 7.5%

G. As per the above formula, $231 (7.5% of $3,073) is inputted into the local overhead cost pool. See Asset Management section for an explanation of how this $231 contributes to the determination of the local overhead "loading rate". The remaining $2,842 (92.5% of $3,073) is inputted into the Brisbane overhead cost pool.

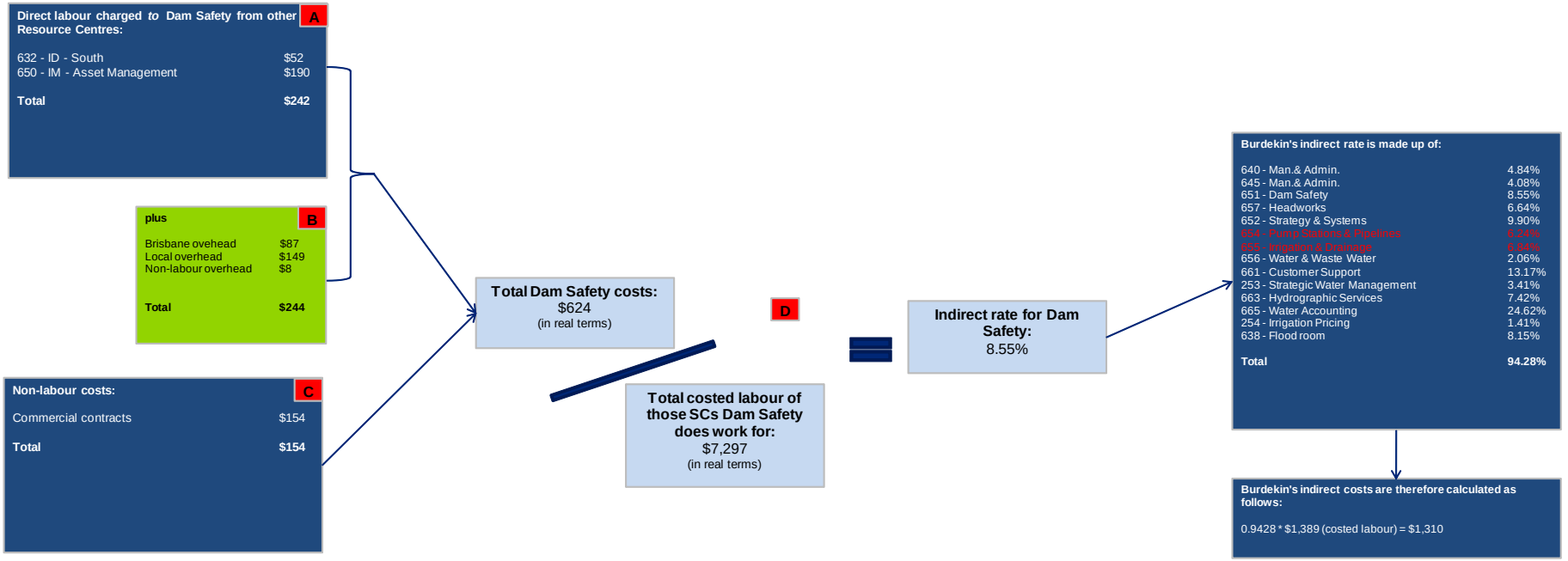
H. Finance Brisbane overhead costs of $2,842 are aggregated with the Brisbane overhead costs of all other Resource Centres, to form the SunWater-wide Brisbane overhead cost pool of $16,954.

I. The Brisbane overhead cost pool of $16,954 is then adjusted in two ways:
   - ICT desktop and Network charges of $1,912 are subtracted
   - Non-labour overhead costs of $1,689 are subtracted. These costs represent the summation of the 5% materials overhead added to the costs of each Service Contracts. This is done to ensure these overhead costs are not double counted and allocated to Service Contracts twice. This process essentially transfers overhead costs “out” of the Brisbane overhead cost pool and “into” an overhead designed to estimate centralised procurement costs.

J. The resultant $13,353 of Sunwater-wide Brisbane overhead costs is divided by total forecast direct costed labour ($34,294) to determine a “loading rate” of 38.94%. This rate is then used to apportion the Brisbane overhead cost pool across the business; every dollar of direct costed labour charged to a Service Contract or Indirect Cost Centre will attract $0.39 of local overhead. Direct costed labour charged to Resource Centres very rarely attracts overhead, to minimise “overhead on overhead”

K. The actual “loading rate” rate applied as outlined above is 36%. This 2.94% downward adjustment is made in order for SunWater to deliberately under recover its costs. SunWater does this as it recognises some of the costs it incurs are for future projects that may not be carried out. This results in $1,007 of the Brisbane overhead cost pool not being recovered, which is SunWater’s estimate of the extra costs (i.e. feasibility studies) it is incurring for potential future projects.

Figure C: Allocation of Dam Safety (Indirect Cost Centre) indirect costs



Notes

A. Labour costs of $242 are comprised of:

   - $52 charged from Infrastructure Development – South
   - $190 from Asset Management.

B. These labour costs attract the following overhead costs, totalling $244:

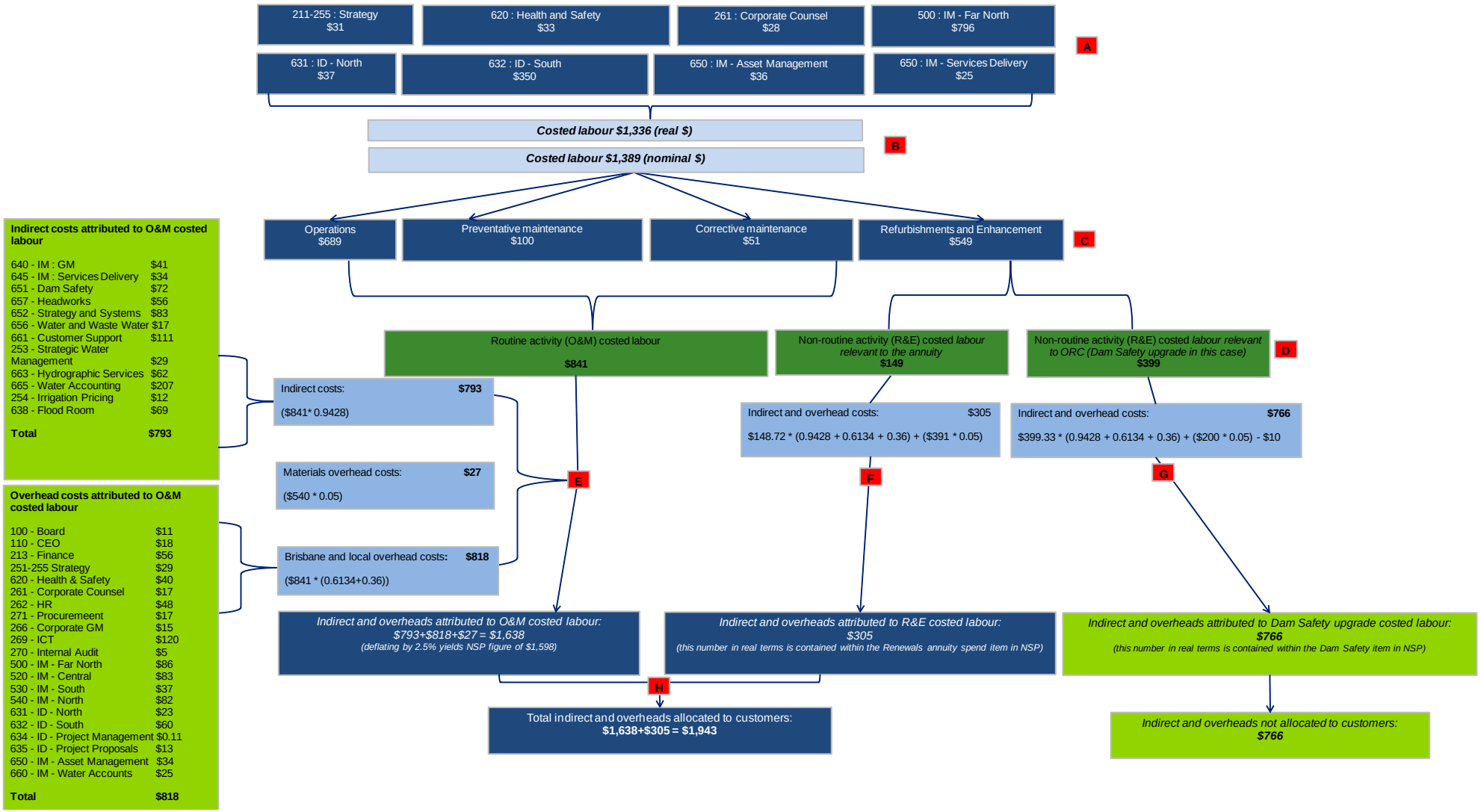
   - $87 of Brisbane overhead (0.36 * 242)
   - $149 of local overhead (0.6134 * 242)
   - $8 of non-labour overhead (0.05 * 154)

C. Non-labour costs are $154 of commercial contractor costs

D. Dam Safety provides support to all Bulk Water Supply Service Contracts. As a result, Dam Safety costs are allocated only to these Service Contracts. This is done by dividing total Dam Safety costs ($624) by all direct labour costs charged to Bulk Water Supply SCs ($7,297) to determine a loading rate of 8.55%. This loading rate will appear in the 'indirect rate' used to calculate the indirect costs allocated to each Bulk Water Supply SCs, such as the Burdekin-Haughton Bulk Water Service Contract (see example in Figure D).

Appendix C – Worked examples of cost allocation to customer groups

Figure D: Allocation of indirect and overhead costs to Burdekin-Haughton Bulk Water Supply (ABB)



Notes

A. This is the composition of ABB's $1,336 costed labour (in real terms), broken down by Resource Centre. For instance, Corporate Counsel has directly charged $28 of its labour costs to ABB

B. ABB's real costed labour of $1,336 can be converted into nominal costed labour through inflating it by an escalation factor of 4% ($1,336 x 1.04 = $1,389)

C. This is the composition of ABB's $1,389 costed labour (in nominal terms), broken down by activity. For instance, of the $1,389 costed labour, $689 represents the portion of this labour cost that can be attributed to employees carrying out operations work

D. This is the composition of ABB's $1,389 costed labour (in nominal terms) categorised into routine and non-routine costed labour. Operations, preventative maintenance and corrective maintenance (O&M) are considered to be activities that are routine, while refurbishments and enhancement (R&E) is considered to be a non-routine activity. O&M activity labour costs are grouped together ($841), whereas R&E labour costs are further broken down into two categories of non-routine activity (annuity-relevant R&E labour costs and ORC-relevant R&E labour costs). This division of R&E costs is important, as ORC-related costs cannot be recovered, as per the Ministerial Directive that no return on SunWater's regulated asset base (known as its Optimised Replacement Cost) be recovered

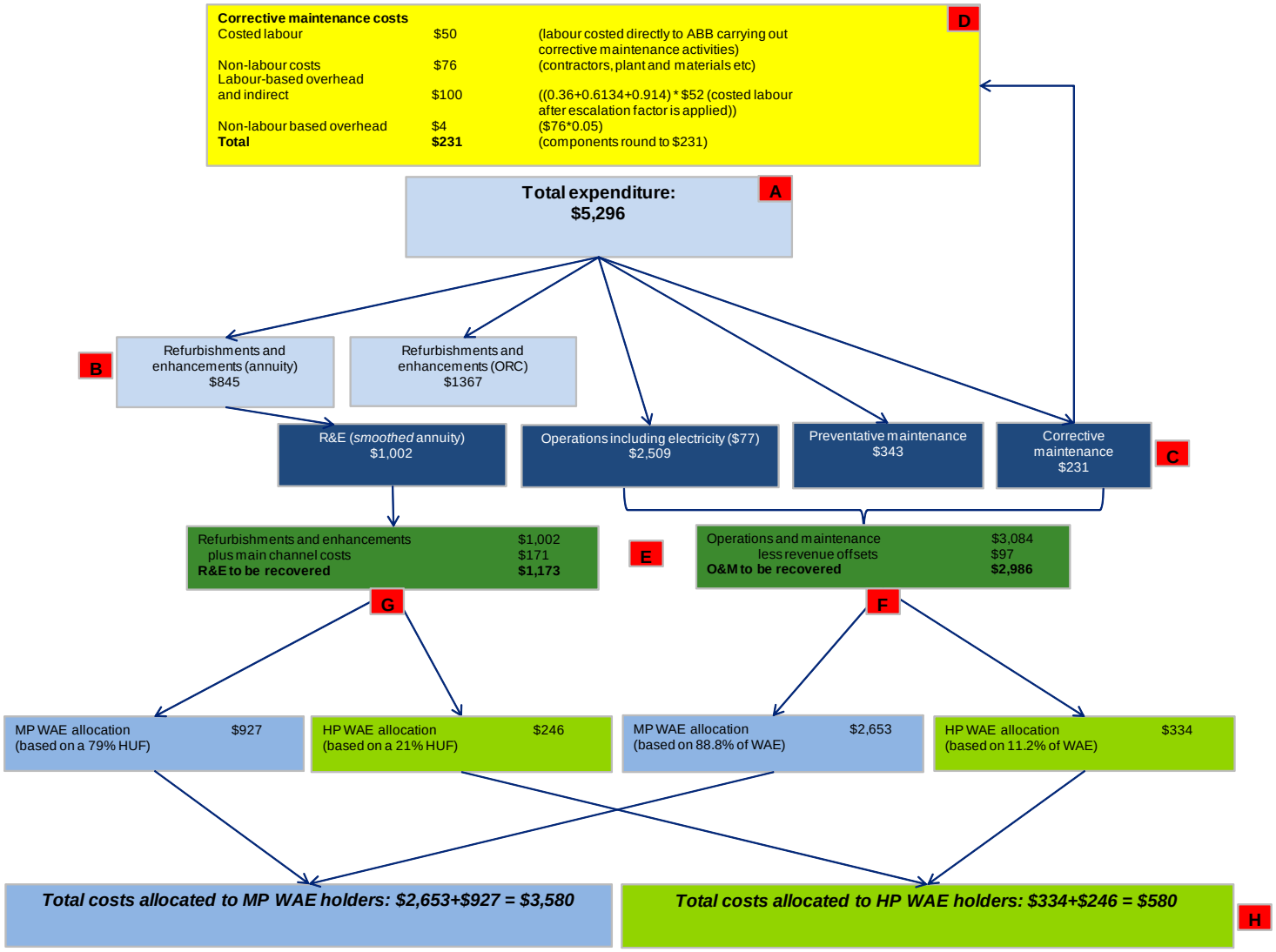
E. These are the indirect and overhead costs that have been allocated to ABB on the basis of its O&M-related labour costs (or routine activity-related labour costs). The indirect costs have been disaggregated into the relevant Indirect Cost Centres, while the overhead costs have been broken down into the relevant Brisbane and local overhead Resource Centres. The $27 non-labour based overhead is 5% of ABB's O&M-related non-labour costs ($540, which excludes electricity). The same disaggregation of indirect and overhead costs associated with R&E labour costs can also be performed

F. These are the indirect and overhead costs ($305) that have been allocated to ABB on the basis of the labour costs ($149) which are recovered through the renewals annuity ($845). That is, of the $845 of R&E costs recovered through the renewals annuity (see Figure E), $149 of these costs are direct labour costs and $305 are indirect and overhead costs

G. These are the indirect and overhead costs ($766) that have been allocated to ABB on the basis of the labour costs ($399) which are not recovered as they are ORC-related costs. That is, of the $1,367 ORC-related costs, $399 of these costs are direct labour costs and $766 are indirect and overhead costs. None of these costs are allocated to customers. The $10 deduction represents an adjustment to the 5% materials overhead attributed to the Dam Safety upgrade.

H. These are the indirect and overhead costs allocated to customers. They are made up of the indirect and overhead costs identified in E and F.

Figure E: Allocation of Burdekin-Haughton Bulk Water Supply (ABB) total expenditure to customer groups



Notes

A. $5,296 is SunWater's total forecast expenditure for the Burdekin Bulk Water Supply Service Contract. Generally speaking, this expenditure is comprised of direct labour costs, direct non-labour costs and indirect and overheads costs ($2,709, which is the sum of all indirect and overhead costs attributed to ABB, regardless of whether these costs are allocated to customers). This is reconciled with the $5,071k of real total expenditure in the NSP by deflating by 2.5% and subtracting real revenue offsets of $95k ($97k nominal), which is a separate item in the NSP

B. ABB's total R&E costs of $2,212 can be divided into:

   - $845 – R&E costs related to the renewals annuity, including $305 of indirect and overhead costs. These costs are inputted into a renewals annuity formula, which produces a smoothed renewals annuity cost of $1,002, to be allocated to customers
   - $1,367 – R&E costs related to the ORC, including $766 of indirect and overhead costs. These costs are not allocated to customers, as per the Ministerial Directive.

C. This is the composition of the forecast expenditure that is allocated to customers, broken down by activity type:

   - $1,002 – R&E costs recovered via the renewals annuity. Note that this excludes ORC-related costs, and is made up entirely of the smoothed renewals annuity cost ($1,002)
   - $2,509 – Operations (including electricity) costs recovered as part of Operations and Maintenance costs
   - $343 – Preventive maintenance costs recovered as part of Operations and Maintenance costs
   - $231 – Corrective maintenance costs recovered as part of Operations and Maintenance costs.

D. This is a disaggregation of the corrective maintenance costs into labour costs, non-labour costs and indirect and overhead costs, which could also be performed for operations, preventative maintenance, R&E (annuity) and R&E (ORC) costs. The rates in parenthesis for the calculation of "labour-based overhead and indirect" are respectively ABB's Brisbane overhead rate, local overhead rate and indirect rate

E. Two adjustments are made to both R&E costs and O&M costs before they are allocated to customers. These adjustments are:

   - R&E costs are increased by $171 to reflect "main channel" costs. The Burdekin-Haughton and Bundaberg schemes contain rivers connected via "main channels". These channels are part of both schemes' Distribution Service Contracts. The R&E costs related to these channels are charged to the Distribution Service Contract, but are transferred to the Bulk Water Supply Service Contract. This is because in the absence of the Bulk Water Supply Service Contract, the costs would not be incurred by the Distribution Service Contract

- O&M costs are decreased by $97 to reflect revenue offsets. Revenue offsets represent revenue SunWater receives from services such as the provision of recreational land. This reduces the revenue target for the relevant Service Contract, and thus needs to be subtracted from the recoverable costs (as the revenue target reflects these costs).

F. The resultant $3,084 of O&M costs are allocated out to Medium Priority (MP) and High Priority (HP) Water Access Entitlement (WAE) holders based on the aggregate ML of WAE held by each of these customer groups. As O&M costs do not vary whether a MP or HP WAE is being delivered, relative volume of WAE was judged by SunWater to be the most accurate indicator of each customer group's share of these costs. MP customers hold 88.8% of ABB's WAE and are therefore apportioned $2,653 of O&M costs (88.8% of $3,084). HP customers are allocated the remaining $334 of O&M costs, based on their 11.2% of total WAE volume

G. The resultant $1,173 of R&E costs are allocated out to Medium Priority (MP) and High Priority (HP) Water Access Entitlement (WAE) holders using a Hydrological Utilisation Factor (HUF). The HUF determines the amount of R&E costs that should be attributed to HP and MP WAE holders based on the different levels of capital expenditure required to ensure a HP WAE is available relative to a MP WAE. The HUF used to apportion R&E costs to HP WAE holders is 21%, resulting in this customer group being allocated $246 of R&E costs, or 21% of $1,173. MP customers are allocated the residual $927 of R&E costs, based on their 79% HUF

   The HUFs are significantly different than the WAE held by the two customer groups. For instance, HP WAE customers hold of 11.2% of ABB's WAE, yet a HUF of 21% is used to allocate R&E costs to them. This results in these customers being allocated 21% of R&E costs, but only 11.2% of O&M costs. This outcome reflects the assumption made by SunWater that ensuring the delivery of a HP WAE is more capital-intensive than ensuring the delivery of a MP WAE, but not necessarily more O&M-intensive

H. The resultant costs allocated to each customer group are as follows:

   - Total costs allocated to MP WAE holders: $2,653+$927 = $3,580
   - Total costs allocated to HP WAE holders: $334+$246 = $580.

Appendix D – Allocation of admin costs to Irrigator Service Contracts and Deloitte modelling results

Table A – Allocation of admin costs to Irrigator Service Contracts under SunWater's proposed allocation methodology (nominal dollars in 000's for 2012 forecast year)

Overhead costs ('000s)

Service Contract	Board	CEO	Finance	Strategy	Health & Safety	Corporate Counsel	HR	Procurement	Corporate GM	ICT	Internal Audit	IM - Far North	IM - Central	IM - South	IM - North	ID - North	ID - South	ID - Project Management	ID - Project Proposals	IM : Asset Management	IM : Water Accounts	Non-labour based overhead (5% materials overhead)	Total
Bulk																							
ABB - Burdekin Water Supply	17.6	30.5	92.6	48.3	65.4	27.9	78.8	28.8	24.6	197.7	7.5	141.8	137.5	61.4	135.4	38.7	98.7	0.2	22.3	56.0	40.6	46.0	**1,398**
APB - Proserpine Water Supply	2.3	3.9	12.0	6.3	8.5	3.6	10.2	3.7	3.2	25.6	1.0	18.4	17.8	8.0	17.5	5.0	12.8	0.0	2.9	7.3	5.3	16.5	**192**
BBB - Bundaberg Water Supply	5.6	9.8	29.7	15.5	21.0	8.9	25.3	9.2	7.9	63.3	2.4	45.4	44.0	19.7	43.4	12.4	31.6	0.1	7.1	17.9	13.0	32.4	**466**
BBL - Lower Mary Water Supply	1.2	2.1	6.4	3.3	4.5	1.9	5.4	2.0	1.7	13.7	0.5	9.8	9.5	4.2	9.4	2.7	6.8	0.0	1.5	3.9	2.8	4.4	**98**
BBR - Barker Barambah Water Supply	3.1	5.4	16.4	8.6	11.6	4.9	14.0	5.1	4.3	35.0	1.3	25.1	24.3	10.9	24.0	6.8	17.5	0.0	3.9	9.9	7.2	27.8	**267**
BBU - Upper Burnett Water Supply	3.2	5.5	16.6	8.7	11.7	5.0	14.1	5.2	4.4	35.4	1.3	25.4	24.6	11.0	24.3	6.9	17.7	0.0	4.0	10.0	7.3	15.1	**257**
BBY - Boyne Water Supply	1.6	2.8	8.5	4.4	6.0	2.5	7.2	2.6	2.2	18.1	0.7	13.0	12.6	5.6	12.4	3.5	9.0	0.0	2.0	5.1	3.7	8.6	**132**
IBH - Chinchilla Weir Water Supply	0.3	0.5	1.4	0.7	1.0	0.4	1.2	0.4	0.4	3.0	0.1	2.1	2.1	0.9	2.0	0.6	1.5	0.0	0.3	0.8	0.6	1.4	**22**
IBM - Maranoa Water Supply	0.1	0.2	0.5	0.3	0.4	0.2	0.5	0.2	0.1	1.1	0.0	0.8	0.8	0.4	0.8	0.2	0.6	0.0	0.1	0.3	0.2	0.4	**8**
IBN - Cunnamulla Weir Water Supply	0.2	0.3	0.9	0.5	0.7	0.3	0.8	0.3	0.2	2.0	0.1	1.4	1.4	0.6	1.4	0.4	1.0	0.0	0.2	0.6	0.4	0.6	**14**
IBS - St George Water Supply	4.4	7.5	22.9	12.0	16.2	6.9	19.5	7.1	6.1	49.0	1.9	35.1	34.0	15.2	33.5	9.6	24.4	0.0	5.5	13.9	10.1	32.8	**368**
IBT - Macintyre Brook Water Supply	3.8	6.5	19.9	10.4	14.0	6.0	16.9	6.2	5.3	42.4	1.6	30.4	29.5	13.2	29.1	8.3	21.2	0.0	4.8	12.0	8.7	12.1	**302**
IBU - Upper Condamine Water Supply	4.5	7.9	23.9	12.5	16.9	7.2	20.4	7.4	6.3	51.1	1.9	36.6	35.5	15.9	35.0	10.0	25.5	0.0	5.8	14.5	10.5	20.6	**370**
KBB - Bowen Broken Water Supply	2.8	4.9	14.9	7.8	10.5	4.5	12.7	4.6	4.0	31.9	1.2	22.9	22.2	9.9	21.8	6.2	15.9	0.0	3.6	9.0	6.5	15.8	**234**
KBE - Eton Water Supply	6.6	11.4	34.7	18.1	24.5	10.4	29.5	10.8	9.2	74.0	2.8	53.1	51.5	23.0	50.7	14.5	36.9	0.1	8.3	21.0	15.2	32.6	**539**
KBP - Pioneer Water Supply	3.1	5.3	16.1	8.4	11.4	4.9	13.7	5.0	4.3	34.4	1.3	24.7	24.0	10.7	23.6	6.7	17.2	0.0	3.9	9.8	7.1	12.5	**248**
LBC - Callide Water Supply	3.2	5.6	16.9	8.8	11.9	5.1	14.4	5.2	4.5	36.0	1.4	25.8	25.0	11.2	24.7	7.0	18.0	0.0	4.1	10.2	7.4	16.7	**263**
LBD - Dawson Water Supply	3.7	6.5	19.7	10.3	13.9	5.9	16.7	6.1	5.2	42.0	1.6	30.1	29.2	13.0	28.8	8.2	21.0	0.0	4.7	11.9	8.6	8.3	**295**
LBF - Lower Fitzroy Water Supply	1.2	2.1	6.4	3.3	4.5	1.9	5.4	2.0	1.7	13.7	0.5	9.8	9.5	4.2	9.4	2.7	6.8	0.0	1.5	3.9	2.8	3.6	**97**
LBN - Nogoa Water Supply	10.9	18.9	57.4	29.9	40.5	17.3	48.8	17.8	15.2	122.4	4.6	87.8	85.1	38.0	83.8	23.9	61.1	0.1	13.8	34.7	25.1	55.3	**892**
LBT - Three Moon Water Supply	1.5	2.5	7.7	4.0	5.5	2.3	6.6	2.4	2.1	16.5	0.6	11.8	11.5	5.1	11.3	3.2	8.2	0.0	1.9	4.7	3.4	5.5	**118**
MBM - Mareeba Water Supply	4.5	7.9	23.9	12.4	16.9	7.2	20.3	7.4	6.3	51.0	1.9	36.5	35.4	15.8	34.9	10.0	25.4	0.0	5.7	14.4	10.5	21.7	**370**
Distribution																							
AIE - Burdekin Distribution	35.5	61.6	187.1	97.5	132.1	56.3	159.2	58.1	49.6	399.2	15.1	286.3	277.6	124.0	273.5	78.1	199.3	0.4	45.0	113.0	82.0	234.6	**2,965**
BIG - Bundaberg Distribution	22.4	38.7	117.7	61.3	83.1	35.4	100.1	36.6	31.2	251.0	9.5	180.0	174.6	78.0	172.0	49.1	125.3	0.2	28.3	71.1	51.5	109.2	**1,826**
LIT - Dawson Distribution	5.4	9.3	28.2	14.7	19.9	8.5	24.0	8.8	7.5	60.2	2.3	43.2	41.9	18.7	41.2	11.8	30.1	0.1	6.8	17.0	12.4	18.3	**430**
KIA - Eton Distribution	6.9	11.9	36.3	18.9	25.6	10.9	30.9	11.3	9.6	77.4	2.9	55.5	53.8	24.0	53.0	15.1	38.7	0.1	8.7	21.9	15.9	37.8	**567**
BIC - Lower Mary Distribution	3.3	5.7	17.2	9.0	12.1	5.2	14.6	5.3	4.6	36.7	1.4	26.3	25.5	11.4	25.2	7.2	18.3	0.0	4.1	10.4	7.5	13.2	**264**
MIM - Mareeba Distribution	15.5	26.9	81.6	42.6	57.6	24.6	69.5	25.4	21.6	174.2	6.6	124.9	121.2	54.1	119.3	34.1	87.0	0.2	19.6	49.3	35.8	73.9	**1,265**
LIW - Emerald Distribution	6.9	12.0	36.6	19.1	25.8	11.0	31.1	11.4	9.7	78.0	3.0	55.9	54.2	24.2	53.4	15.3	38.9	0.1	8.8	22.1	16.0	35.9	**569**
IIS - St George Distribition	7.6	13.2	40.1	20.9	28.3	12.1	34.1	12.5	10.6	85.5	3.2	61.3	59.5	26.6	58.6	16.7	42.7	0.1	9.6	24.2	17.6	32.3	**617**
																							15,456

Indirect costs ('000s)

Service Contract	IM - GM	IM - Services Delivery	Dam Safety*	Headworks	Strategy & Systems	Pump Stations and Pipelines	Irrigation & Drainage	Water & Waste Water	Customer Support	Strategic Water Management	Hydrographic Services	Water Accounting	Irrigation Pricing	Flood Room	Total
Bulk															
ABB - Burdekin Water Supply	67.2	56.7	118.8	92.2	137.5	0.0	0.0	28.6	182.9	47.4	103.1	342.0	19.6	113.6	**1,310**
APB - Proserpine Water Supply	8.7	7.3	15.4	12.0	17.8	0.0	0.0	3.7	23.7	6.1	13.4	44.3	2.5	14.7	**170**
BBB - Bundaberg Water Supply	21.5	18.2	38.0	29.5	44.1	0.0	0.0	9.2	58.6	15.2	33.0	109.6	6.3	0.0	**383**
BBL - Lower Mary Water Supply	4.6	3.9	8.2	6.4	9.5	0.0	0.0	2.0	12.6	3.3	7.1	23.6	1.4	0.0	**83**
BBR - Barker Barambah Water Supply	11.9	10.0	21.0	16.3	24.4	0.0	0.0	5.1	32.4	8.4	18.3	60.6	3.5	0.0	**212**
BBU - Upper Burnett Water Supply	12.1	10.2	21.3	16.5	24.7	0.0	0.0	5.1	32.8	8.5	18.5	61.3	3.5	0.0	**214**
BBY - Boyne Water Supply	6.1	5.2	10.9	8.4	12.6	0.0	0.0	2.6	16.7	4.3	9.4	31.3	1.8	0.0	**109**
IBH - Chinchilla Weir Water Supply	1.0	0.9	1.8	1.4	2.1	0.0	0.0	0.4	2.8	0.7	1.6	5.2	0.3	0.0	**18**
IBM - Maranoa Water Supply	0.4	0.3	0.7	0.5	0.8	0.0	0.0	0.2	1.1	0.3	0.6	2.0	0.1	0.0	**7**
IBN - Cunnamulla Weir Water Supply	0.7	0.6	1.2	0.9	1.4	0.0	0.0	0.3	1.8	0.5	1.0	3.4	0.2	0.0	**12**
IBS - St George Water Supply	16.6	14.0	29.4	22.8	34.1	0.0	0.0	7.1	45.3	11.7	25.5	84.7	4.9	28.1	**324**
IBT - Macintyre Brook Water Supply	14.4	12.2	25.5	19.8	29.5	0.0	0.0	6.1	39.2	10.2	22.1	73.4	4.2	24.4	**281**
IBU - Upper Condamine Water Supply	17.4	14.6	30.7	23.8	35.5	0.0	0.0	7.4	47.3	12.2	26.6	88.4	5.1	29.4	**338**
KBB - Bowen Broken Water Supply	10.8	9.1	19.2	14.9	22.2	0.0	0.0	4.6	29.5	7.6	16.6	55.1	3.2	0.0	**193**
KBE - Eton Water Supply	25.2	21.2	44.5	34.5	51.5	0.0	0.0	10.7	68.5	17.7	38.6	128.0	7.3	42.5	**490**
KBP - Pioneer Water Supply	11.7	9.9	20.7	16.1	24.0	0.0	0.0	5.0	31.9	8.3	18.0	59.6	3.4	19.8	**228**
LBC - Callide Water Supply	12.2	10.3	21.6	16.8	25.0	0.0	0.0	5.2	33.3	8.6	18.8	62.3	3.6	20.7	**239**
LBD - Dawson Water Supply	14.3	12.0	25.2	19.6	29.2	0.0	0.0	6.1	38.9	10.1	21.9	72.6	4.2	0.0	**254**
LBF - Lower Fitzroy Water Supply	4.6	3.9	8.2	6.4	9.5	0.0	0.0	2.0	12.6	3.3	7.1	23.6	0.0	0.0	**81**
LBN - Nogoa Water Supply	41.6	35.1	73.5	57.1	85.1	0.0	0.0	17.7	113.3	29.3	63.8	211.7	12.1	70.3	**811**
LBT - Three Moon Water Supply	5.6	4.7	9.9	7.7	11.5	0.0	0.0	2.4	15.3	4.0	8.6	28.6	1.6	0.0	**100**
MBM - Mareeba Water Supply	17.3	14.6	30.6	23.8	35.4	0.0	0.0	7.4	47.1	12.2	26.6	88.1	5.0	29.3	**338**
Distribution															
AIE - Burdekin Distribution	135.8	114.4	0.0	0.0	277.7	175.0	191.9	0.0	369.4	0.0	0.0	0.0	39.6	0.0	**1,304**
BIG - Bundaberg Distribution	85.4	72.0	0.0	0.0	174.6	110.1	120.7	0.0	232.3	0.0	0.0	0.0	24.9	0.0	**820**
LIT - Dawson Distribution	20.5	17.3	0.0	0.0	41.9	26.4	28.9	0.0	55.7	0.0	0.0	0.0	6.0	0.0	**197**
KIA - Eton Distribution	26.3	22.2	0.0	0.0	53.9	33.9	37.2	0.0	71.6	0.0	0.0	0.0	7.7	0.0	**253**
BIC - Lower Mary Distribution	12.5	10.5	0.0	0.0	25.5	16.1	17.6	0.0	34.0	0.0	0.0	0.0	3.6	0.0	**120**
MIM - Mareeba Distribution	59.2	49.9	0.0	0.0	121.2	76.4	83.7	0.0	161.2	0.0	0.0	0.0	17.3	0.0	**569**
LIW - Emerald Distribution	26.5	22.4	0.0	0.0	54.3	34.2	37.5	0.0	72.2	0.0	0.0	0.0	7.7	0.0	**255**
IIS - St George Distribition	29.1	24.5	0.0	0.0	59.5	37.5	41.1	0.0	79.2	0.0	0.0	0.0	8.5	0.0	**279**
															9,991

Unrecovered admin costs (Dam Safety upgrade)

Service contract	Dam Safety admin costs
ABB - Burdekin Water Supply	766
KBE - Eton Water Supply	258
MBM - Mareeba Water Supply	73

Note: Total admin costs allocated to each Irrigator Service Contract, as shown in Table A, differ from those in Table B (when direct costed labour is to allocate each function) due to differences between the SFM and our indicative modelling exercise. See section 4.3.2 for an explanation of these differences.

Table B – Impact of different cost drivers for key functions (nominal dollars in 000's for 2012 forecast year)

	Human Resources			Finance			Strategy and Stakeholder Relations			Health, Safety, Environment and Quality		
	FTEs	Direct costed labour	Direct total costs	Transactions	Direct costed labour	Direct total costs	Customer numbers	Direct costed labour	Service Contract	FTEs	Direct costed labour	Direct total costs
Bulk Irrigator Service Contracts												
ABB - Burdekin Water Supply	61	58	56	65	68	65	76	86	34	50	48	46
ABP - Proserpine Water Supply	11	11	15	34	12	17	19	16	34	10	9	12
BBB - Bundaberg Water Supply	28	26	32	86	31	37	229	39	34	23	22	26
BBL - Lower Mary Water Supply	6	6	5	26	7	6	37	8	34	5	5	4
BBR - Barker Barambah Water Supply	16	14	23	35	17	27	33	21	34	13	12	19
BBU - Upper Burnett Water Supply	16	15	16	48	17	19	32	22	34	13	12	13
BBY - Boyne Water Supply	8	7	9	25	9	10	32	11	34	7	6	7
IBH - Chinchilla Weir Water Supply	1	1	1	9	1	2	6	2	34	1	1	1
IBM - Maranoa Water Supply	1	0	0	2	1	1	1	1	34	0	0	0
IBN - Cunnamulla Weir Water Supply	1	1	1	4	1	1	5	1	34	1	1	1
IBS - St George Water Supply	21	20	29	50	24	34	32	30	34	17	17	24
IBT - Macintyre Brook Water Supply	18	18	16	44	21	18	19	26	34	15	15	13
IBU - Upper Condamine Water Supply	22	21	23	48	25	27	21	31	34	18	17	19
KBB - Bowen Broken Water Supply	13	13	16	61	15	19	11	19	34	11	11	13
KBE - Eton Water Supply	22	23	21	62	27	24	63	33	34	18	19	17
KBP - Pioneer Water Supply	14	14	14	55	17	17	1	21	34	11	12	12
LBC - Callide Water Supply	16	15	17	45	17	20	28	22	34	13	12	14
LBD - Dawson Water Supply	19	17	14	37	20	16	30	26	34	15	14	11
LBF - Lower Fitzroy Water Supply	6	6	5	19	7	6	4	7	27	5	5	4
LBN - Nogoa Water Supply	49	51	57	66	59	67	72	75	34	41	42	47
LBT - Three Moon Water Supply	7	7	7	22	8	8	19	10	34	6	6	5
MBM - Mareeba Water Supply	19	19	22	49	22	26	234	28	34	16	16	18
Total (bulk)	374	362	398	894	426	468	1005	535	742	310	301	330
% change vs direct costed labour	3%	0%	10%	110%	0%	10%	88%	0%	39%	3%	0%	10%
Distribution Irrigator Service Contracts												
AIE - Burdekin Irrigation Distribution	180	165	228	161	194	268	40	141	24	149	137	189
BIG - Bundaberg Irrigation Distribution	111	104	122	153	122	143	140	89	24	92	86	101
LIT - Dawson Irrigation Distribution	26	25	23	31	29	27	7	21	24	22	21	19
KIA - Eton Irrigation Distribution	31	32	38	67	38	45	48	27	24	26	27	32
BIC - Lower Mary Irrigation Distribution	16	15	16	46	18	18	12	13	24	13	13	13
MIM - Mareeba Irrigation Distribution	79	72	79	89	85	93	157	62	24	65	60	66
LIW - Emerald Irrigation Distribution	31	32	37	41	38	44	23	28	24	26	27	31
IIS - St George Irrigation Distribution	37	35	36	24	41	43	8	30	24	31	29	30
Total (distribution)	**511**	**480**	**580**	**613**	**564**	**681**	**435**	**412**	**193**	**424**	**398**	**481**
% change vs direct costed labour	**6%**	**0%**	**21%**	**9%**	**0%**	**21%**	**6%**	**0%**	**-53%**	**6%**	**0%**	**21%**
Other Service Contracts												
ABJ - Julius Water Supply	5	5	5	20	5	6	1	6	27	4	4	4
ATB - Burdekin Town Water	3	3	3	8	4	4	8	2	17	3	3	2
MHT - Tinaroo Hydro	3	3	3	6	3	3	0	2	17	2	2	2
MTM - Mutchilba Town Water	2	2	1	3	2	1	2	1	17	1	1	1
AXK - Kelsey Creek Water Board	0	0	0	0	0	0	0	0	17	0	0	0
AXM - Xstrata Mount Isa	0	0	0	0	0	0	0	0	0	0	0	0
AXN - NWQ subsidiary	24	23	29	8	27	34	0	14	17	20	19	24
AXQ - NQ Water	10	9	16	7	10	19	0	5	17	8	7	13
MXB - NPA Bamaga	32	27	27	8	32	32	0	17	17	26	23	22
KCB - Burdekin Moranbah Pipeline	23	24	45	29	28	53	3	14	17	19	20	37
KCC - Collinsville Pipeline	21	22	31	26	26	36	2	13	17	18	18	26
KCL - Blackwater Pipeline	15	16	26	12	18	31	2	10	17	12	13	22
KDE - Eungella Offtakes	0	0	2	3	1	2	2	0	17	0	0	2
KDG - Gregory Offtakes	0	0	0	1	0	0	5	0	17	0	0	0
KDN - Newlands Offtakes	0	0	2	1	0	2	1	0	17	0	0	1
KDO - Oakey Creek Offtakes	0	0	1	1	0	1	2	0	17	0	0	1
KDS - Saraji Offtakes	1	1	2	2	1	2	3	0	17	0	0	1
KXB - BMA Pipelines	47	47	40	16	55	47	0	29	17	39	39	33
KXN - Newlands Pipeline	5	5	7	6	6	8	0	3	17	4	4	6
KXU - Eungella subsidiary	17	17	21	41	20	25	0	11	17	14	14	17
KXZ - Minor contracts	0	0	0	0	0	0	0	0	0	0	0	0
BCT - Tarong Pipeline	32	29	43	36	35	51	14	18	17	26	24	36
LCA - Awoonga Callide Pipeline	33	30	46	46	36	54	4	19	17	27	25	38
LCG - Goondicum Pipeline	0	0	0	0	0	0	0	0	0	0	0	0
LCS - Stanwell Pipeline	22	21	29	22	25	34	2	13	17	19	17	24
BXB - BWPL subsidiary - Bulk water - Paradise	24	24	21	85	28	25	0	30	27	20	20	17
BXC - BWPL subsidiary - Bulk water - Kirar	6	5	3	0	6	4	0	7	27	5	4	3
BXH - BWPL subsidiary - Hydro	2	2	3	2	3	3	0	1	17	2	2	2
IXA - NCA Scrivener	38	35	57	9	41	67	0	21	17	32	29	47
IXB - NRW Border Rivers	17	16	16	28	19	18	0	10	17	15	13	13
IXD - NRW Dumaresq	8	7	4	5	8	5	0	4	17	6	6	4
IXQ - Qld Gas Toowoomba	0	0	0	0	0	0	0	0	0	0	0	0
XXX - NRW Meters	25	23	13	0	27	15	0	14	17	21	19	11
639 - ID - Consultancies	155	167	83	37	196	97	0	102	17	128	138	68
299 - ID - Feasibilities	247	298	148	26	350	173	0	183	17	205	247	122
299 - ID - Projects	0	0	0	0	0	0	0	0	0	0	0	0
Total (other)	**819**	**861**	**726**	**495**	**1012**	**853**	**54**	**548**	**560**	**679**	**714**	**602**
% change vs direct costed labour	**-5%**	**0%**	**-16%**	**-51%**	**0%**	**-16%**	**-90%**	**0%**	**2%**	**-5%**	**0%**	**-16%**
Total	1703	1703	1703	2002	2002	2002	1495	1495	1495	1412	1412	1412

	Legal and Property			Procurement			Information and Communications Technology			Infrastructure Management - Regions		
	Direct costed labour	Direct total costs	Customer numbers	Direct total costs	Transactions	Direct costed labour	FTEs	Direct costed labour	Direct total costs	Direct costed labour	Direct costed labour (targeted)	Direct total costs
Bulk Irrigator Service Contracts												
ABB - Burdekin Water Supply	21	20	27	20	20	21	152	146	140	351	477	336
ABP - Proserpine Water Supply	4	5	7	5	11	4	29	26	37	64	83	89
BBB - Bundaberg Water Supply	9	11	83	12	27	10	71	66	80	158	209	192
BBL - Low er Mary Water Supply	2	2	13	2	8	2	15	14	13	34	45	32
BBR - Barker Barambah Water Supply	5	8	12	9	11	5	39	36	59	87	120	141
BBU - Upper Burnett Water Supply	5	6	12	6	15	5	39	37	40	88	118	97
BBY - Boyne Water Supply	3	3	12	3	8	3	20	19	22	45	59	53
IBH - Chinchilla Weir Water Supply	0	0	2	1	3	0	3	3	4	7	11	9
IBM - Maranoa Water Supply	0	0	0	0	1	0	1	1	1	3	4	3
IBN - Cunnamulla Weir Water Supply	0	0	2	0	1	0	2	2	2	5	7	4
IBS - St George Water Supply	7	10	11	11	16	7	53	51	73	122	178	175
IBT - Macintyre Brook Water Supply	6	6	7	6	14	6	45	44	39	106	150	95
IBU - Upper Condamine Water Supply	7	8	7	8	15	8	56	53	57	127	193	136
KBB - Bow en Broken Water Supply	5	6	4	6	19	5	32	33	40	79	131	96
KBE - Eton Water Supply	8	7	23	7	19	8	54	57	51	136	236	124
KBP - Pioneer Water Supply	5	5	1	5	17	5	34	36	36	86	142	87
LBC - Callide Water Supply	5	6	10	6	14	5	40	37	43	89	116	103
LBD - Daw son Water Supply	6	5	11	5	12	6	47	43	34	105	141	82
LBF - Low er Fitzroy Water Supply	2	2	2	2	6	2	15	14	12	34	38	29
LBN - Nogoa Water Supply	18	20	26	21	21	18	123	127	143	305	395	345
LBT - Three Moon Water Supply	2	2	7	2	7	2	18	17	17	41	53	40
MBM - Mareeba Water Supply	7	8	85	8	15	7	48	47	55	113	126	132
Total (bulk)	128	141	363	145	278	132	937	909	998	2186	3032	2400
% change vs direct costed labour	0%	10%	183%	10%	110%	0%	3%	0%	10%	0%	39%	10%
Distribution Irrigator Service Contracts												
AIE - Burdekin Irrigation Distribution	58	80	19	83	50	60	452	413	571	994	1315	1374
BIG - Bundaberg Irrigation Distribution	37	43	67	44	47	38	277	260	305	625	806	734
LIT - Daw son Irrigation Distribution	9	8	3	9	10	9	66	62	58	150	191	140
KIA - Eton Irrigation Distribution	11	14	23	14	21	12	77	80	97	193	312	232
BIC - Low er Mary Irrigation Distribution	5	6	6	6	14	6	39	38	39	92	97	94
MIM - Mareeba Irrigation Distribution	25	28	75	29	28	26	198	180	199	434	581	478
LIW - Emerald Irrigation Distribution	11	13	11	14	13	12	79	81	93	194	315	224
IIS - St George Irrigation Distribution	12	13	4	13	7	13	93	89	91	213	312	219
Total (distribution)	**169**	**205**	**208**	**212**	**190**	**175**	**1281**	**1203**	**1453**	**2,894**	**3,929**	**3,496**
% change vs direct costed labour	**0%**	**21%**	**23%**	**21%**	**9%**	**0%**	**6%**	**0%**	**21%**	**0%**	**36%**	**21%**
Other Service Contracts												
ABJ - Julius Water Supply	2	2	0	2	6	2	12	11	13	28	32	32
ATB - Burdekin Tow n Water	1	1	5	1	2	1	9	8	8	19	24	18
MHT - Tinaroo Hydro	1	1	0	1	2	1	7	7	6	16	19	15
MTM - Mutchilba Tow n Water	1	0	1	0	1	1	4	4	3	10	11	7
AXK - Kelsey Creek Water Board	0	0	0	0	0	0	1	0	0	1	2	1
AXM - Xstrata Mount Isa	0	0	0	0	0	0	0	0	0	0	0	0
AXN - NWQ subsidiary	8	10	0	11	3	8	61	57	72	137	166	174
AXQ - NQ Water	3	6	0	6	2	3	26	22	41	53	85	98
MXB - NPA Bamaga	10	10	0	10	2	10	79	69	68	165	262	164
KCB - Burdekin Moranbah Pipeline	8	16	2	16	9	9	57	59	112	142	231	270
KCC - Collinsville Pipeline	8	11	1	11	8	8	53	55	77	133	174	186
KCL - Blackw ater Pipeline	5	9	1	10	4	6	37	39	66	94	147	158
KDE - Eungella Offtakes	0	1	1	1	1	0	1	1	5	3	6	12
KDG - Gregory Offtakes	0	0	3	0	0	0	0	0	1	1	2	2
KDN - New lands Offtakes	0	1	1	1	0	0	0	0	4	1	2	10
KDO - Oakey Creek Offtakes	0	0	1	0	0	0	0	0	3	1	2	6
KDS - Saraji Offtakes	0	1	2	1	1	0	1	1	4	4	7	9
KXB - BMA Pipelines	17	14	0	15	5	17	119	118	100	284	579	240
KXN - New lands Pipeline	2	2	0	3	2	2	12	12	17	30	59	42
KXU - Eungella subsidiary	6	7	0	8	13	6	43	44	53	105	187	126
KXZ - Minor contracts	0	0	0	0	0	0	0	0	0	0	0	0
BCT - Tarong Pipeline	10	15	8	16	11	11	80	74	109	177	244	261
LCA - Aw oonga Callide Pipeline	11	16	2	17	14	11	82	76	116	183	248	279
LCG - Goondicum Pipeline	0	0	0	0	0	0	0	0	0	0	0	0
LCS - Stanw ell Pipeline	7	10	1	11	7	8	56	53	72	127	164	174
BXB - BWPL subsidiary - Bulk w ater - Paradise	9	7	0	8	27	9	61	61	52	146	163	126
BXC - BWPL subsidiary - Bulk w ater - Kirar	2	1	0	1	0	2	15	13	8	32	46	19
BXH - BWPL subsidiary - Hydro	1	1	0	1	1	1	6	6	7	14	14	16
IXA - NCA Scrivener	12	20	0	21	3	13	95	87	143	209	369	343
IXB - NRW Border Rivers	6	6	0	6	9	6	44	40	39	95	176	95
IXD - NRW Dumaresq	2	2	0	2	2	2	19	17	11	41	76	26
IXQ - Qld Gas Toow oomba	0	0	0	0	0	0	0	0	0	0	0	0
XXX - NRW Meters	8	5	0	5	0	8	63	57	33	137	227	78
639 - ID - Consultancies	59	29	0	30	11	61	387	418	207	1006	-414	498
299 - ID - Feasibilities	105	52	0	54	8	109	620	748	370	1798	0	890
299 - ID - Projects	0	0	0	0	0	0	0	0	0	0	0	0
Total (other)	**304**	**256**	**31**	**265**	**154**	**314**	**2053**	**2158**	**1819**	**5,192**	**3,311**	**4,376**
% change vs direct costed labour	**0%**	**-16%**	**-90%**	**-16%**	**-51%**	**0%**	**-5%**	**0%**	**-16%**	**0%**	**-36%**	**-16%**
Total	602	602	602	622	622	622	4270	4270	4270	10,271	10,271	10,271

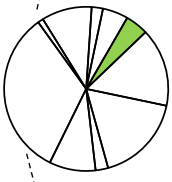
	Infrastructure Management - Asset Management			Infrastructure Management - Water Accounts			Infrastructure Management - General Manager & Service Delivery			Infrastructure Development		
	Direct costed labour	Direct total costs	Asset value	Customer numbers	Direct total costs	Direct costed labour	Direct total costs	Direct costed labour	FTEs	Direct costed labour	Direct costed labour (targeted)	Direct total costs
Bulk Irrigator Service Contracts												
ABB - Burdekin Water Supply	323	281	512	327	437	501	146	178	178	118	172	113
ABP - Proserpine Water Supply	59	75	153	81	116	91	39	32	34	21	0	30
BBB - Bundaberg Water Supply	145	160	170	982	249	225	41	40	41	53	2	64
BBL - Lower Mary Water Supply	31	27	12	157	42	49	7	9	9	11	0	11
BBR - Barker Barambah Water Supply	80	118	142	143	183	124	30	22	23	29	0	47
BBU - Upper Burnett Water Supply	81	81	115	138	126	126	21	23	23	30	0	32
BBY - Boyne Water Supply	42	44	94	137	68	64	11	11	12	15	0	18
IBH - Chinchilla Weir Water Supply	7	7	11	27	11	11	2	2	2	3	0	3
IBM - Maranoa Water Supply	3	2	10	4	4	4	1	1	1	1	0	1
IBN - Cunnamulla Weir Water Supply	5	4	4	23	6	7	1	1	1	2	0	2
IBS - St George Water Supply	112	147	73	135	228	174	76	62	62	41	3	59
IBT - Macintyre Brook Water Supply	97	79	123	80	123	151	41	54	53	35	2	32
IBU - Upper Condamine Water Supply	117	114	120	89	177	182	59	64	65	43	2	46
KBB - Bowen Broken Water Supply	73	81	83	45	125	113	21	20	19	27	0	32
KBE - Eton Water Supply	126	104	135	272	161	195	54	69	63	46	58	42
KBP - Pioneer Water Supply	79	72	158	6	113	123	38	44	40	29	0	29
LBC - Callide Water Supply	82	86	244	122	134	128	45	45	47	30	5	35
LBD - Dawson Water Supply	96	68	85	129	106	149	17	27	27	35	0	27
LBF - Lower Fitzroy Water Supply	31	25	20	21	38	49	6	9	8	11	0	10
LBN - Nogoa Water Supply	280	288	344	311	449	435	150	154	144	102	81	116
LBT - Three Moon Water Supply	38	33	65	80	52	59	9	10	11	14	0	13
MBM - Mareeba Water Supply	104	111	144	1006	172	162	57	57	57	38	17	44
Total (bulk)	2012	2007	2816	4314	3121	3124	870	935	920	734	341	806
% change vs direct costed labour	0%	0%	40%	38%	0%	0%	-7%	0%	-2%	0%	-54%	10%
Distribution Irrigator Service Contracts												
AIE - Burdekin Irrigation Distribution	760	884	505	105	548	460	294	253	264	334	10	461
BIG - Bundaberg Irrigation Distribution	478	472	703	365	293	290	157	159	162	210	0	246
LIT - Dawson Irrigation Distribution	115	90	30	17	56	69	30	38	39	50	0	47
KIA - Eton Irrigation Distribution	148	149	176	125	93	89	50	49	45	65	0	78
BIC - Lower Mary Irrigation Distribution	70	61	62	32	38	42	20	23	23	31	9	32
MIM - Mareeba Irrigation Distribution	332	308	374	409	191	201	103	111	116	146	6	161
LIW - Emerald Irrigation Distribution	149	144	137	60	89	90	48	49	46	65	0	75
IIS - St George Irrigation Distribution	163	141	60	21	88	99	47	54	54	71	12	74
Total (distribution)	**2214**	**2251**	**2046**	**1134**	**1396**	**1340**	**749**	**738**	**748**	**971**	**37**	**1,173**
% change vs direct costed labour	**0%**	**2%**	**-8%**	**-15%**	**4%**	**0%**	**2%**	**0%**	**1%**	**0%**	**-96%**	**21%**
Other Service Contracts												
ABJ - Julius Water Supply	25	26	98	4	41	39	7	7	7	9	0	11
ATB - Burdekin Town Water	9	7	2	26	7	9	4	5	5	6	0	6
MHT - Tinaroo Hydro	9	7	4	0	6	7	3	4	4	5	0	5
MTM - Mutchilba Town Water	4	3	1	6	3	4	2	2	2	3	0	2
AXK - Kelsey Creek Water Board	0	0	0	0	0	0	0	0	0	0	0	0
AXM - Xstrata Mount Isa	0	0	0	0	0	0	0	0	0	0	0	0
AXN - NWQ subsidiary	79	85	0	0	15	12	37	35	36	46	2	58
AXQ - NQ Water	6	11	0	0	8	5	42	27	30	18	0	33
MXB - NPA Bamaga	19	19	0	0	14	14	35	42	46	56	0	55
KCB - Burdekin Moranbah Pipeline	82	132	213	11	108	66	58	36	33	48	0	91
KCC - Collinsville Pipeline	76	91	44	7	74	61	40	34	31	44	18	62
KCL - Blackwater Pipeline	54	77	42	6	63	43	34	24	22	31	0	53
KDE - Eungella Offtakes	2	8	0	7	5	1	3	1	1	1	0	4
KDG - Gregory Offtakes	1	2	0	15	1	1	1	0	0	0	0	1
KDN - Newlands Offtakes	1	6	0	4	4	1	2	0	0	0	0	3
KDO - Oakey Creek Offtakes	1	4	0	6	2	1	1	0	0	0	0	2
KDS - Saraji Offtakes	3	6	0	10	4	2	2	1	1	1	0	3
KXB - BMA Pipelines	33	28	0	0	20	24	52	72	69	95	0	81
KXN - Newlands Pipeline	3	5	0	0	4	3	9	8	7	10	0	14
KXU - Eungella subsidiary	60	62	0	0	50	48	27	27	25	35	0	42
KXZ - Minor contracts	0	0	0	0	0	0	0	0	0	0	0	0
BCT - Tarong Pipeline	102	128	148	43	104	82	56	45	47	60	0	88
LCA - Awoonga Callide Pipeline	105	136	147	12	112	85	60	47	48	61	0	94
LCG - Goondicum Pipeline	0	0	0	0	0	0	0	0	0	0	0	0
LCS - Stanwell Pipeline	73	85	49	7	70	59	37	32	33	43	0	58
BXB - BWPL subsidiary - Bulk water - Paradise	134	105	0	1	164	208	55	74	71	49	1	42
BXC - BWPL subsidiary - Bulk water - Kirar	30	16	0	1	25	46	4	8	9	11	0	7
BXH - BWPL subsidiary - Hydro	8	8	0	0	7	7	3	4	4	5	0	5
IXA - NCA Scrivener	25	40	0	0	29	18	149	106	112	70	8	115
IXB - NRW Border Rivers	88	79	0	0	8	8	20	24	26	32	0	32
IXD - NRW Dumaresq	5	3	0	1	28	50	6	10	11	14	0	9
IXQ - Qld Gas Toowoomba	0	0	0	0	0	0	0	0	0	0	0	0
XXX - NRW Meters	16	9	0	0	7	12	17	35	37	46	0	26
639 - ID - Consultancies	118	59	0	0	42	86	0	0	0	338	1377	167
299 - ID - Feasibilities	211	105	0	0	76	153	0	0	0	604	1660	299
299 - ID - Projects	0	0	0	0	0	0	0	0	0	0	0	0
Total (other)	**1384**	**1353**	**748**	**170**	**1101**	**1154**	**765**	**712**	**717**	**1,743**	**3,067**	**1,469**
% change vs direct costed labour	**0%**	**-2%**	**-46%**	**-85%**	**-5%**	**0%**	**7%**	**0%**	**1%**	**0%**	**76%**	**-16%**
Total	5610	5610	5610	5618	5618	5618	2384	2384	2384	3,448	3,444	3,448

Note: When allocated using direct costed labour (targeted), total ID – Project Management overhead costs of $4,000 are not allocated as this Resource Centre is not forecast to charge any labour to Service Contracts in 2012. Consequently, when this method is used $3,444k of ID cost is allocated rather than $3,448k.

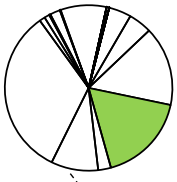
	Board	CEO	Internal Audit	Corporate GM	5% materials charge
	Direct costed labour	Direct costed labour	Direct costed labour	Direct costed labour	Non-labour based
Bulk Irrigator Service Contracts					
ABB - Burdekin Water Supply	13	22	6	18	46
ABP - Proserpine Water Supply	2	4	1	3	16
BBB - Bundaberg Water Supply	6	10	2	8	32
BBL - Lower Mary Water Supply	1	2	1	2	4
BBR - Barker Barambah Water Supply	3	6	1	4	28
BBU - Upper Burnett Water Supply	3	6	1	5	15
BBY - Boyne Water Supply	2	3	1	2	9
IBH - Chinchilla Weir Water Supply	0	0	0	0	1
IBM - Maranoa Water Supply	0	0	0	0	0
IBN - Cunnamulla Weir Water Supply	0	0	0	0	1
IBS - St George Water Supply	5	8	2	6	33
IBT - Macintyre Brook Water Supply	4	7	2	5	12
IBU - Upper Condamine Water Supply	5	8	2	7	21
KBB - Bowen Broken Water Supply	3	5	1	4	16
KBE - Eton Water Supply	5	9	2	7	33
KBP - Pioneer Water Supply	3	6	1	4	13
LBC - Callide Water Supply	3	6	1	5	17
LBD - Dawson Water Supply	4	7	2	5	8
LBF - Lower Fitzroy Water Supply	1	2	1	2	4
LBN - Nogoa Water Supply	11	20	5	16	55
LBT - Three Moon Water Supply	2	3	1	2	5
MBM - Mareeba Water Supply	4	7	2	6	27
Total (bulk)	81	140	34	113	396
% change vs direct costed labour	0%	0%	0%	0%	0%
Distribution Irrigator Service Contracts					
AIE - Burdekin Irrigation Distribution	37	64	16	51	235
BIG - Bundaberg Irrigation Distribution	23	40	10	32	109
LIT - Dawson Irrigation Distribution	6	10	2	8	18
KIA - Eton Irrigation Distribution	7	12	3	10	38
BIC - Lower Mary Irrigation Distribution	3	6	1	5	13
MIM - Mareeba Irrigation Distribution	16	28	7	22	74
LIW - Emerald Irrigation Distribution	7	12	3	10	36
IIS - St George Irrigation Distribution	8	14	3	11	32
Total (distribution)	**107**	**186**	**46**	**150**	**555**
% change vs direct costed labour	**0%**	**0%**	**0%**	**0%**	**0%**
Other Service Contracts					
ABJ - Julius Water Supply	1	2	0	1	5
ATB - Burdekin Town Water	1	1	0	1	2
MHT - Tinaroo Hydro	1	1	0	1	2
MTM - Mutchilba Town Water	0	1	0	0	1
AXK - Kelsey Creek Water Board	0	0	0	0	0
AXM - Xstrata Mount Isa	0	0	0	0	0
AXN - NWQ subsidiary	5	9	2	7	30
AXQ - NQ Water	2	3	1	3	20
MXB - NPA Bamaga	6	11	3	9	23
KCB - Burdekin Moranbah Pipeline	5	9	2	7	32
KCC - Collinsville Pipeline	5	8	2	7	31
KCL - Blackwater Pipeline	3	6	1	5	29
KDE - Eungella Offtakes	0	0	0	0	3
KDG - Gregory Offtakes	0	0	0	0	1
KDN - Newlands Offtakes	0	0	0	0	3
KDO - Oakey Creek Offtakes	0	0	0	0	2
KDS - Saraji Offtakes	0	0	0	0	2
KXB - BMA Pipelines	11	18	4	15	28
KXN - Newlands Pipeline	1	2	0	2	8
KXU - Eungella subsidiary	4	7	2	5	21
KXZ - Minor contracts	0	0	0	0	0
BCT - Tarong Pipeline	7	11	3	9	34
LCA - Awoonga Callide Pipeline	7	12	3	9	29
LCG - Goondicum Pipeline	0	0	0	0	0
LCS - Stanwell Pipeline	5	8	2	7	27
BXB - BWPL subsidiary - Bulk water - Paradise	5	9	2	8	15
BXC - BWPL subsidiary - Bulk water - Kirar	1	2	1	2	1
BXH - BWPL subsidiary - Hydro	1	1	0	1	3
IXA - NCA Scrivener	8	13	3	11	68
IXB - NRW Border Rivers	4	6	1	5	14
IXD - NRW Dumaresq	2	3	1	2	2
IXQ - Qld Gas Toowoomba	0	0	0	0	0
XXX - NRW Meters	5	9	2	7	3
639 - ID - Consultancies	37	65	16	52	0
299 - ID - Feasibilities	67	115	28	93	0
299 - ID - Projects	0	0	0	0	0
Total (other)	**192**	**333**	**82**	**268**	**438**
% change vs direct costed labour	**0%**	**0%**	**0%**	**0%**	**0%**
Total	380	659	162	531	1389

Appendix E – MAE detailed analysis

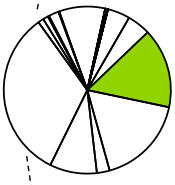
MAE – Finance (Taxation)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Taxation and compliance advice 	▪ Financial Statements/Tax Return	▪ All taxation returns - compliance	0.20	Core	
	▪ GST/BAS	▪ Income tax calculations	0.20	Core	
	▪ FBT advice and return preparation	▪ Successful taxation management	0.20	Core	
	▪ Payroll Tax		0.05	Core	
	▪ PAYG		0.01	Core	
	▪ EPBS/R&D		0.01	Core	
	▪ Compliance		0.20	Core	
	▪ Monitoring and review of current changes		0.05	Core	
	▪ Project/Strategy		0.10	Core	
	▪ General commercial		0.02	Core	
		TOTAL FTE	**1.04**		

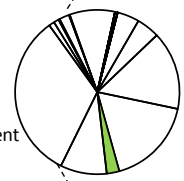
MAE – Finance (Accounts payable)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Accounts payable 	▪ Processing of AP invoices	▪ Accurate payment of vendors within terms	3.16	Core	▪ Potential to review efficiency ✓
	▪ Vendor reconciliations		0.04	Core	
	▪ Query resolution		0.61	Core	
	▪ Travel processing		0.15	Core	
	▪ Payments to vendors		0.04	Core	
		TOTAL FTE	**4.00**		

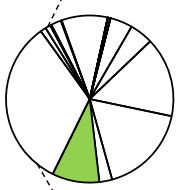
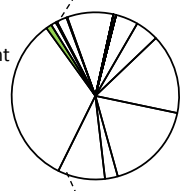
MAE – Finance (Receivables and debtors mgt)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Receivables and debtors management 	▪ Debt Collection incl phone, correspondence, and legal	▪ Low volumes of outstanding customer debt	1.50	Core	✓ ▪ Potential to review for efficiency
	▪ Account administration payments,reconcile, jnls, etc		0.52	Core	
	▪ Billing & Customer enquiries		0.09	Core	
	▪ Credit assessment new customers		0.32	Core	
	▪ Credit assessment major customers		0.15	Core	
	▪ Credit assessment projects		0.10	Core	
	▪ Receipting of cheque payments	▪ 9,000 incoming cheques entered/year	0.57	Non-core	✓ ▪ Significant amount of cheques – potential to review for efficiency
	▪ Debtor Reporting , Provisioning and Counter-party Reporting		0.22	Core	
	▪ Invoices and credit notes	▪ 4,500 active accounts, invoiced quarterly	0.08	Core	
		TOTAL FTE	**3.55**		

MAE – Finance (Insurance renewal and claims mgt)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Insurance renewal and claims management 	▪ Renewal including strategy review	▪ Optimal insurance coverage	0.22	Core	
	▪ Claims Management		0.20	Core	
	▪ Policy Management		0.05	Core	
	▪ Insurer Management		0.05	Core	
	▪ Broker Management		0.05	Core	
		TOTAL FTE	**0.57**		

MAE – Finance (budgeting and financial planning)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Budgeting, financial planning and modelling 	▪ Budgeting	▪ Best possible budget and forecast data	1.20	Core	
	▪ Forecasting		0.35	Core	
	▪ Financial modelling including capital management strategy and pricing		0.18	Core	
	▪ DCF calculations and reviews		0.37	Core	
		TOTAL FTE	**2.10**		
Cash and funds management including project funding 	▪ Rolling 12 month cash flow forecasts	▪ Maximisation of returns on cash and minimisation of interest on borrowings	0.07	Core	
	▪ Daily cash balances and forecasts		0.16	Core	
	▪ Term deposit management		0.01	Core	
	▪ Borrowings management		0.01	Core	
		TOTAL FTE	**0.25**		

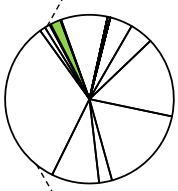
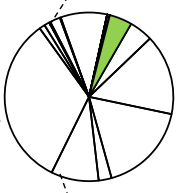
MAE – Finance (financial reporting and analysis)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Financial reporting and analysis	Statutory reports and annual reports	Accurate and timely reporting	0.20	Core	
	Quarterly scorecards and interim reports		0.10	Core	
	Board reports / KPIs		0.45	Core	
	Audit committee reports		0.03	Core	
	Quarterly capital reports		0.02	Core	
	Treasury reporting inc Tridata		0.15	Core	
	Monthly management reports (including analysis of results)		2.42	Core	✓ Appears high when combined with resources analysis/reporting areas
	Project reports		0.04	Core	
	Tailored and one-off reports		0.61	Non-core	✓ Appears high for one-off reports – when combined with query resolution (below)
	BI enhancements		0.04	Non-core	Recommended that this be kept/increased to identify improvements
	GL processing ie interfaces, journals etc		0.31	Core	
	GL reconciliations		0.18	Core	
	Month end processing - accruals, cost allocation etc		0.91	Core	
	Master data set up and review		0.84	Core	
	Purchase order maintenance		0.05	Core	
	Query resolution		1.20	Core	✓ See comment for monthly mgt reports
		TOTAL FTE	**7.54**		

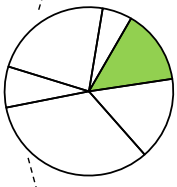
MAE – Finance (asset and services management)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Asset and Services Management	Capitalisation and retirements	Accurate fixed asset registers	0.20	Core	
	Facilities Management including tenancy	Management of tenancy issues	1.10	Core	✓ Seems high when combined with property group
	Fleet Management	Accounting / management of SunWater fleet	0.15	Core	
	Plant & Equip Management Inc AMIS & Stocktake	Accounting/ management of SunWater plant & equipment	0.19	Core	
	Fuel Card Management	Management of fuel cards	0.19	Core	✓ Appears high – potential to review for efficiency
	Corporate Card Management	Management of corporate cards	0.18	Core	
	ID & Access Card Management	Management of access cards	0.15	Core	
	Manage Water Trader	Mangement of external water trader	0.08	Core	
	Electricity RECs	Lodgement of electricity RECs	0.01	Core	
	Impairment		0.03	Core	
		TOTAL FTE	**2.28**		

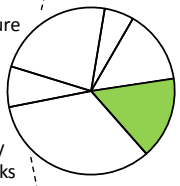
MAE – Finance (projects and oversight/stakeholder relations)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Projects and Commercial contracts 	Project evaluation and management	Accurate and timely project evaluation and management	0.04	Core	
	Project steering committees		0.02	Core	
	Contract evaluation	Accurate and timely invoicing	0.05	Core	
	Commercial billing		0.40	Core	
		TOTAL FTE	**0.51**		
Oversight and Stakeholder relations 	Oversight including all functions above	Finance function	1.00	Core	
	Maintain financial / administration policies	Policies up to date and accurately reflect SunWater's values	0.04	Core	
	Annual credit review	Annual credit review	0.05	Core	
	Annual capital structure review	Annual capital structure review	0.05	Core	
	Independent credit rating	Independent credit rating	0.02	Core	
		TOTAL FTE	**1.16**		

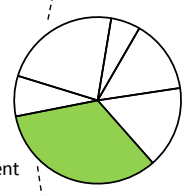
MAE – ICT (Service desk)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Service desk providing a 'one stop information shop' 	Technical Support	Meet resolution service targets (Priority 1 - 4 hour resolution, Priority 2 - 8 hr resolution, Priority 3 - 3 days, Priority 4 - 3 weeks)	2.80	Core	✓ Compared to benchmark Service Desk seems high – potential to review Technical support for efficiency
	Telephony Support	Provide landline, mobile voice and mobile data support, purchasing and management (includes gauging stations and dam sites)	0.80	Core	
	Asset Management	Manage ICT software and hardware assets (installations for regions)	0.20	Core	
	Service Desk Administration	Manage Service Desk resources and reporting	0.20	Core	
		TOTAL FTE	**4.00**		

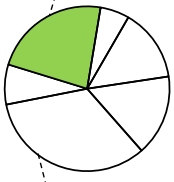
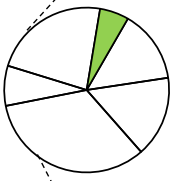
MAE – ICT (Infrastructure support)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Infrastructure support for business systems, desktop productivity and networks (both data and voice) 	Network Support	Administer SunWater's local networks in all locations and wide area network connections.	0.50	Core	
	Central management of a common operating environment	Maintain functional Managed Operating Environment for SunWater Corporate network incorporating necessary updates	0.75	Core	
	Server Support	Administer all SunWater servers for updates, new builds, backups and disaster recovery	2.40	Core	
	Security Administration	Manage security on SunWater ICT devices including firewalls, servers, network devices and desktops.	0.50	Core	
	Support for line of business applications	Provide server support for line of business applications such as SWIMS, internet and intranet.	0.30	Core	
		TOTAL FTE	**4.45**		

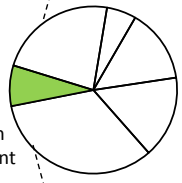
MAE – ICT (Business systems analysis)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Business system analysis and development 	SAP Requirement analysis and support	Provide SAP Basis support, troubleshoot functional or system issues and assist business users in documenting requirements for new capabilities, enhancements or changes.	2.55	Core	
	SAP Business system development	Develop or modify SAP code in line with business system requirements.	2.00	Core	
	SWIMS Requirement analysis and support	Provide SWIMS system support	1.30	Core ✓	Coupled with labour in Water Accounts, SWIMs support seems high. Note: SWIMs replacement project underway.
	Hummingbird Requirement Analysis and support	Provide Hummingbird system support	0.80	Core	
	Other applications Requirement Analysis	As above for minor applications (approx 200 applications)	1.20	Core	
		TOTAL FTE	**9.35**		

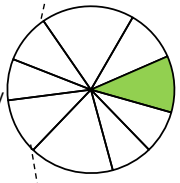
MAE – ICT

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Information governance 	▪ Software development and testing	▪ Maintain and enhance Software Development Life Cycle and Testing processes.	0.20	Core	
	▪ IT Management	▪ Manage all ICT resources	2.30	Core	
	▪ IT Policies and Procedures	▪ Review and improve IT policies and processes (including produce IT report and audit reporting)	0.30	Core	
	▪ Enterprise architecture modelling	▪ Model SunWater processes, applications, information and infrastructure	1.00	Core	
	▪ Project governance	▪ Manage and govern ICT projects (for many projects - large projects being SWIMs, Thin Client roll out, BI project)	2.60	Core	
		TOTAL FTE	**6.40**		
Library function and hard copy file storage and record management 	▪ Physical records management	▪ Manage all SunWater physical records, both on-site and off-site.	1.00	Core	
	▪ Library	▪ Provide on-line and off-line library services, including copyright management	0.60	Core ✓	Potential to review for efficiency – in terms of overlap with Hummingbird
		TOTAL FTE	**1.60**		

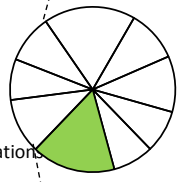
MAE – ICT

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Guidance and advice on information management 	▪ RTI (FOI external requests)	▪ Examine and respond to all RTI requests.	0.50	Core	
	▪ Information Discovery	▪ Examine and respond to all information discovery requests.	0.40	Non-core ✓	Coupled with SSR external comms appears high (2 FTE)
	▪ Strategic guidance	▪ Provide guidance to managers throughout SunWater on best practice information management.	0.30	Non-core ✓	Seems high for providing guidance
	▪ Operational support and training	▪ Support records supervisors throughout SunWater with advice, assistance and training.	1.00	Core	
		TOTAL FTE	**2.20**		

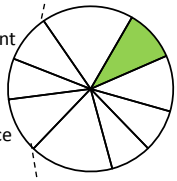
MAE – Water Accounts (Customer accounts)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Process billing and dispatch of invoices / water statements 	Logger management	Customer Invoices	0.2	Core	
	Meter reads	Customer water statements	0.07	Core	
	Pricing	Provision of information (i.e. Annual Report, NWI)	0.2	Core	
	Contracting	Revenue assurance	0.04	Core	
	Meter maintenance reports		0.06	Core	
	Production/printing/ dispatch		0.74	Core	
	Stationery and equipment		0.06	Core	
	Audit		0.06	Core	
	Customer account governance	compliance with legislation	0.3	Core	
	Revenue transfers		0.02	Core	
		TOTAL FTE	**1.75**		

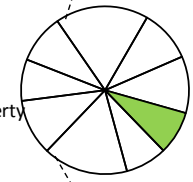
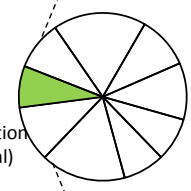
MAE – Water Accounts

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Customer communication 	Queries - help desk, incoming mail, announced allocations advice, preparations of notifications, advertisements, SMS and phone calls	Bill accuracy, Event information, Water harvesting information, Flood information	1.19	Core	
	SunWater Website/SIMON/SOS	Published Service Targets, Forms, and Scheme Operations Manuals	0.28	Core	
	Review, update and maintenance of customer forms and product information	Event information provided	0.93	Core	
	Afterhours emergency response	First point of contact	0.1	Core	
	Dial Before You Dig - Prepare maps to applicant	Maps provided for application	0.12	Core	
		TOTAL FTE	**2.62**		

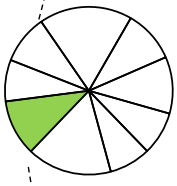
MAE – Water Accounts (oversight)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Management oversight and financial performance 	Oversight of Group		0.7	Core	
	ADP reviews	Sustainability of team into the future	0.17	Core	
	Coaching, professional development, training		0.5	Core	
	Manage transitional employee		0.06	Core	
	Budgeting, revenue forecasts and monitoring	Budget reports	0.05	Core	
	Reporting - Board, monthly reports KPIs and SLFI	Business Summary Reports, SLFI monthly reports	0.06	Core	
	Monthly reports including KPIs	CEO updates	0.05	Core	
	Water Accounts updates	Water Accounts newsletters	0.03	Non-core	Immaterial
		TOTAL FTE	**1.62**		

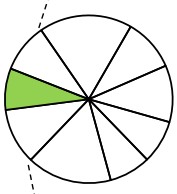
MAE – Water Accounts

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Process transfers of water and property sales 	Application process	Customer contracts	0.32	Core	
	Legal enquiries	ROP 13	0.17	Core	
	Review and renewals		0.03	Core	
	Pricing		0.02	Core	
	Contract/amendment		0.62	Core	
	Regulatory		0.05	Core	
	Internal/external liaison		0.13	Core	
		TOTAL FTE	**1.34**		
Contract Administration (commercial) 	Legal enquiries	Contract systems updated	0.15	Core	
	Management and administration of contract obligations and information	Contract documents managed - Revenue assurance	0.44	Core	
	Negotiations, review, renewals, pricing, amendment and expiry/termination		0.42	Core	
	Internal/external liaison		0.27	Core	
		TOTAL FTE	**1.28**		

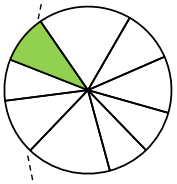
MAE – Water Accounts (ROP compliance)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
ROP Operation and Compliance 	▪ Application assessment and approvals - Various ROP provisions - Credit Water, Spot Sale, Channel Harvesting, River (Water) Harvesting, carryover, temporary transfer	▪ Data entry for customer water statements	0.32	Core	
	▪ Preparation of reports (quality check, updates to database and missing data)	▪ Quarterly data transfer	0.49	Core	
	▪ Establish systems and processes- Audit reports	▪ Annual data transfer	0.11	Core	
	▪ Operational Support to field staff for ROP/IROLs	▪ Service Delivery staff trained and aware of obligations	0.09	Core	
	▪ Incident and emergency investigations	▪ Annual ROP/IROL reports / Improvement actions	0.22	Core	
	▪ Application of Water Sharing rules - Manual Calculations and AASMs	▪ Announced Allocations	0.5	Core	
		TOTAL FTE	**1.73**		

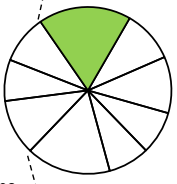
MAE – Water Accounts (Contracts)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Other Contracts And Data provision 	▪ DERM Contracts (Meter Reading and Qucas)	▪ Invoices, Water Statements, completion of contractual obligations, revenue assurance	0.32	Core	
	▪ External data provision	▪ Information provided to requestor	0.21	Core	
	▪ Provision of data to BOM	▪ Data provided as per water regulations	0.08	Core	
	▪ Temporary Transfers - Assessment of applications	▪ Customer notifications	0.15	Core	
	▪ Daily processing / accounting for continuous schemes (Mac Intyre Brook and St George)	▪ Customer Invoices	0.52	Core	
		TOTAL FTE	**1.28**		

MAE – Water Accounts (SWIMs)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Maintain and Operate SWIMs 	▪ Database management SWIMS R1	▪ Statistics (i.e. NWI, OGOC and data for pricing)	0.18	Core	✓ Note: SWIMs replacement project occurring over next couple of years
	▪ Database management SWIMS R2		0.34	Core	
	▪ Business requirements		0.12	Core	
	▪ Direct database updates		0.07	Core	
	▪ Account maintenance		0.03	Core	
	▪ Provision of information		0.11	Core	
	▪ Testing		0.28	Core	
	▪ Training in SWIMS R1		0.04	Core	
	▪ Training in SWIMS R2		0.07	Core	
	▪ SWIMS Replacement project		0.27	Core	
		TOTAL FTE	**1.51**		

MAE – Water Accounts (Hydrographic services)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Hydrographic Services – Provide data for operational use, regulatory compliance and investigations for ID 	▪ Gauging Station network maintenance and design	▪ Hydrographic data (water level, flow, rainfall and flood room)	0.48	Core	
	▪ Instrument calibration and maintenance	▪ Dam Safety instrumentation readings	0.45	Core	
	▪ Database management	▪ Consultancy services	0.1	Core	
	▪ Rating development	▪ Information reporting	0.1	Core	
	▪ System design and maintenance		1.08	Core	
	▪ Data editing and validation		0.6	Core	
	▪ Attend meetings		0.06	Core	
		TOTAL FTE	**2.87**		

MAE – Services Delivery (Regions)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Manage the regional business	▪ Manage customers			Core	
	▪ Provide executive customer service health check on contracts			Core	
	▪ Manage risks			Core	
	▪ Manage billing and finances			Core	
	▪ Assess breaches of conduct			Core	
	▪ QA			Core	
	▪ Risk management			Core	
		TOTAL FTE	**13.00**		
Manage day to day operations of region	▪ Liaise with key stakeholders			Core	
	▪ Attend irrigator meetings			Core	
	▪ Independence checks			Core	
		TOTAL FTE	**1.00**		

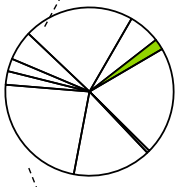
MAE – Services Delivery (Regions)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Manage resource efficiency for standards of service	Scheduling work - which includes:				
	▪ Collect maintenance data			Core	
	▪ Training schedule			Core	
	▪ Provisions for non-available time			Core	
	▪ Organising resources			Core	
	▪ Costing			Core	
	▪ Measuring performance			Core	
	▪ Issue work orders			Core	
	▪ Project accounting			Core	
		TOTAL FTE	**7.00**		
Office support	▪ Procurement of small purchases			Core	
	▪ Manage travel arrangements			Core	
	▪ Local Commms - limited reception function			Core	
	▪ Manage inventory and stocktakes			Core	
	▪ Filing and other Admin duties including operations data management			Core	
	▪ cleaning			Core	
		TOTAL FTE	**8.50**		

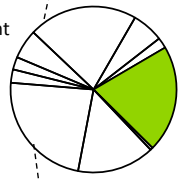
MAE – HR (Policy and strategy)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Development of human resource policies, strategies, and procedures	▪ Develop HR policies		0.14	Core	
	▪ Maintain HR policies		0.18	Core	
	▪ HR plan and strategy/Development and Implementation		0.20	Core	
	▪ Research and Networking with external stakeholders		0.07	Core	
	▪ Meetings with Stakeholders		0.09	Core	
		TOTAL FTE	**0.68**		

MAE – HR (Workforce planning)

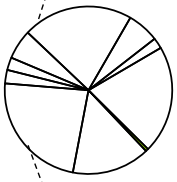
Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Workforce planning, including succession and career planning 	Develop workforce plan		0.02	Core	
	Develop and implement staffing strategy		0.07	Core	
	Develop succession plan		0.03	Core	
	Develop career plan (90 FTEs)		0.02	Core	
	360 degree reviews		0.01	Core	
	Meetings with Internal Stakeholders		0.07	Core	
		TOTAL FTE	**0.23**		

MAE – HR (Recruitment and exit)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Recruitment and exit 	Review and Develop Role Descriptions		0.25	Core	✓ Potential to review for efficiency
	Manage online recruitment system		0.28	Non-core	Recommended
	Advertise internally and externally		0.11	Core	
	Liaising with external recruitment providers		0.14	Core	
	Shortlisting candidates		0.14	Core	
	Interview candidates	Candidate election report	0.24	Core	
	Candidate selection/testing and offer	Letters of Offer and Contracts Delivered	0.35	Core	
	Update org charts	Updated Org Charts	0.08	Core	✓ Potential to review for efficiency
	Facilitate online induction and pre-employment		0.32	Core	✓ Potential to review for efficiency
	Provide exit interviews		0.04	Core	
	Advice on Contract Development		0.06	Core	
	Coaching Recruitment Processes		0.06	Core	
	HR Administration		0.23	Core	✓ Potential to review for efficiency
		TOTAL FTE	**2.30**		

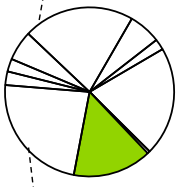
MAE – HR (Graduate recruitment program)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Manage Graduate program	Manage university promotional activities			Core	
	Develop a package of activities and policies for new grads/Cadets/Apprentices			Core	
	Manage rotational program			Core	
	Manage mentoring, training (incl. behavioural), monthly meetings as part of the program			Core	
	Recruitment and job offers			Core	
		TOTAL FTE	**0.06**		



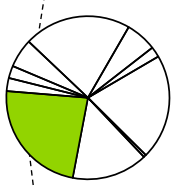
MAE – HR (Industrial relations)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Industrial relations and HR advice to managers	Develop IR strategy (annual)		0.25	Core	✓ Appears high – potential to review for efficiency
	Develop EA strategy for renewal (3yr cycle)		0.23	Core	✓ Appears high – potential to review for efficiency
	Develop and deliver training modules		0.08	Core	
	Liaise with multiple government departments (e.g.JAG and Treasury)		0.07	Core	
	Liaise with Unions (currently 6)		0.06	Core	
	Run employee surveys		0.01	Core	
	Grievance resolutions and investigation		0.07	Core	
	Manage unfair dismissals process		0.05	Core	
	Manage workers comp claims and investigations; submit claims; manage insurance		0.03	Core	
	IR Advice to Managers/Prepare Documents		0.53	Core	✓ Appears high – potential to review for efficiency
	Provide expert advice to Remuneration & Benefits and Payroll		0.14	Core	
	Manage site agreements and bonus arrangements		0.02	Core	
	Meet with and Benchmark external stakeholders/Travel to Regions		0.11	Core	
		TOTAL FTE	**1.66**		



MAE – HR (Training and development)

Deliver training and development including leadership development



Mission	Key activities	FTE's	Core / Non core		Potential opportunity
	▪ Develop OD and training strategy	0.25	Core		
	▪ Deliver training needs analysis	0.23	Core	✓	Seems high – depends on changes to business operations
	▪ Develop and deliver specific programs for senior and exective leadership	0.08	Core		
	▪ Maintain ADP (Achievement Development Plan) process (includes annual workshops for all employees and audits). ~100 ppl pa	0.07	Core		
	▪ Develop and deliver operator level training/vocational training (supervision. Water officer, water treatment, safety and compliance, front line leader)	0.06	Core		
	▪ Develop and deliver and publish curriculum	0.01	Core		
	▪ Develop behavioural training and coaching	0.07	Core		
	▪ Run harrassment workshops	0.05	Core		
	▪ Biennial employee/safety survey and focus groups	0.03	Non-Core		
	▪ Run mentoring training and program	0.53	Core	✓	This seems high
	▪ Knowledge capture and management	0.14	Core		
	▪ Advice to Managers and staff	0.02	Core		
	▪ External Stakeholder Relationships	0.11	Core		
	▪ Liaising with external training providers		Core		
	▪ Develop & Monitor a Coaching & Mentoring Program		Core		
	▪ Manage LMS		Core		
	▪ Meetings with internal and external stakeholders		Core		
	TOTAL FTE	**2.57**			

MAE – HR (General mgt + employee performance mgt)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Employee performance management	Through ADP (Achievement Development Plan) process develop KPIs and measure against individual performance		0.06	Core	
	Provide coaching and mediation		0.20	Core	
	Manage apprentices		0.01	Core	
	Manage unfair dismissals process		0.00	Core	
		TOTAL FTE	**0.29**		
General Management	Reporting to the board		0.11	Core	
	General input to external and internal reports (e.g., shareholders, SCI - statement of corporate intent)		0.09	Core	
	Budgeting		0.04	Core	
	Processing approvals		0.02	Core	
		TOTAL FTE	**0.27**		

MAE – HR (Remuneration mgt and advice)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Remuneration management and advice	Deliver employee benefit programs (e.g., API, employee assistance)		0.05	Core	
	Deliver employee health program		0.03	Non core	Recommended
	Manage rehab and return to work program		0.23	Core	
	Manage contract remuneration (currently 60 FTEs)		0.11	Core	
	Manage executive remuneration		0.03	Core	
	Manage board remuneration process		0.02	Core	
	Manage remuneration committee		0.02	Core	
	Run salary surveys		0.01	Non-core	Recommended
	Complete job evaluations		0.07	Non-core	Recommended
	Manage superannuation and salary sacrifice and salary packaging		0.02	Core	
	Develop and deliver benefit information sessions		0.02	Non-core	Recommended
		TOTAL FTE	**0.63**		

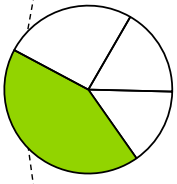
MAE – HR (Payroll)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Deliver payroll services	Manage time sheeting process (has increased from 40 to 420; add another 100 shortly)		0.85	Core	✓ This seems high
	Facilitate payroll process (through SSA)		1.03	Core	
	Workforce metrics and reporting		0.15	Core	
	Establishment activity		0.07	Core	
	Review/Approve Manual Pay		0.01	Core	
	Meet with internal and external stakeholders/benchmarking/Research		0.11	Non-core	Recommended
	Audit Payroll		0.11	Core	
		TOTAL FTE	**2.34**		

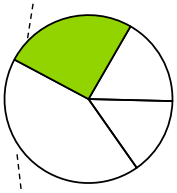
MAE – SSR (Water planning)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Water Planning (WP)	Manage WP Staff and group, WP administration (email & phone enquiries, budgeting, work plan)		0.25	Core	
	Resource Operations Licence (ROL) related submissions to DERM (WRPs, ROPs, CWSAs)		0.82	Core	
	Attendance at community reference panels, IACs and stakeholder groups in relation to WRPs, ROP, CWSAs		0.16	Core	
	Submissions to Commonwealth Regulators (ACCC, NWC, BOM)		0.19	Core	
	Water planning issue and stakeholder engagement, management and response (including legislation change watchlist)		0.23	Core	
	Yield hydrology reviews and approvals		0.16	Core	
	Negotiation of interagency agreements (between DOL and ROL holders)		0.18	Core	
		TOTAL FTE	**2.00**		

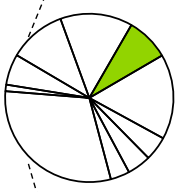
MAE – SSR (Corporate relations)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Corporate relations 	▪ Manage CR Staff and group, CR administration (email & phone enquiries, budgeting, work plan)	0.40	Core	
	▪ Training and development	0.07	Core	
	▪ Internal communications (brochures, newsletters, intranet, business advice/reports, EMC comms, staff updates)	1.50	Non core	Recommended
	▪ External communications - non-projects (issues management, media, government, suppliers, SHMs, public enquiries, internet)	1.49	Core	
	▪ Public Safety Advertising	0.18	Non-core	Recommended
	▪ Corporate reporting (annual report, quarterly report publishing etc)	0.27	Core	
	▪ Sponsorship management	0.01	Non-core	
	▪ Dividend Reinvestment oversight and liaison	0.16	Core	
	▪ Events management (including Innovation and Achievement Awards)	0.14	Non-core	Recommended
	▪ Innovation initiative system development, implementation and pilot	0.18	Non-core	
	▪ Comms projects and support to ID (Connors, Nathan, Chinchilla to Kenya, Pipelines)	0.50	Core	
	▪ Comms projects to review marketing materials and plan for Business Development	0.09	Non-core	Recommended
	TOTAL FTE	**4.99**		

MAE – SSR (Business strategy)

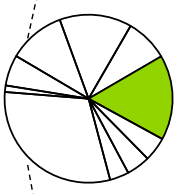
Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Business Strategy (BS) 	▪ Manage BS Staff and group, BS administration (email & phone enquiries, budgeting, work plan)	0.25	Core	
	▪ Negotiation and preparations of submissions to OGOC and other OGOC related agencies	0.22	Core	
	▪ Prepare content for corporate progress reports (annual, quarterly, interim, strat plan status)	0.44	Core	
	▪ Coordination of input, maintenance of reporting (to EMC, Board and Committees) against SunWater's corporate risk framework	0.22	Core	
	▪ Coordination of strategic planning cycle and preparation of planning documentation (SCI, Corp Plan, Strat Plan, Business Plan)	0.33	Core	
	▪ Crisis Management and Business Continuity Planning Framework maintenance, testing and training	0.09	Core	
	▪ Irrigation Water Pricing Project coordination and negotiations with regulators (QCA and DERM)	0.19	Core	
	▪ Irrigation Water Pricing project support	0.19	Core	
	▪ Implementation of new pricing arrangements	0.50	Core	
	▪ Evaluate the separation of distribution system networks and identify rate of return on assets to enable the remaining business to be better understood (Strat Plan KRA 3)	0.20	Core	
	▪ NWI Benchmarking reporting	0.06	Core	
	▪ CSO negotiation and support	0.18	Core	
	▪ Negotiation and preparation of submissions with commonwealth economic regulators for MDB (ACCC)	0.14	Core	
	TOTAL FTE	**3.00**		

MAE – Asset Management (Management)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Management 	▪ Review of corporate risk register, strategic planning, business planning, budget cycles, AM work plan	0.55	Core	
	▪ Management Reporting	0.15	Core	
	▪ Recruitment	0.07	Core	
	▪ Achievement development planning	0.20	Core	
	▪ Financial Management/ expenditure monitoring	0.11	Core	
	▪ Training, awareness and competence	2.10	Core	
	TOTAL FTE	**3.18**		

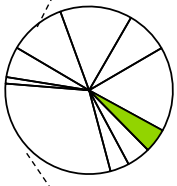
MAE – Asset Management (strategy and planning)

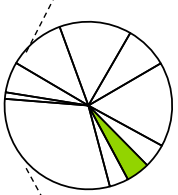
Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Asset strategy and planning - General	Support the development of new facility management bids	0.04	Core	
	Develop Whole of life maintenance strategies for new assets	0.55	Core	
	Participation in CIEAM, to assess new technologies	0.27	Non-core	Recommended
	Establish/review standard facility maintenance strategy	3.48	Core	
	Scheme strategic planning	0.40	Core	
	Dam Safety Regulator Audits	0.05	Core	
	Annual review of 5 year asset plans	1.12	Core	
	Review and update FIAs	0.01	Core	
	Dam Safety Library	0.33	Core	
	Respond to Dam Safety issues	0.05	Core	
	TOTAL FTE	**6.30**		



MAE – Asset Management (strategy and planning)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Performance and condition measurement and monitoring	Ad Hoc dam inspection	0.04	Core	
	Dam Instrumentation Data	0.32	Core	
	Water Treatment plant performance monitoring	1.43	Core	
	TOTAL FTE	**1.79**		
Risk Identification Assessment and Control	Asset and Facility Risk assessments	1.32	Core	
	Safety Inspections/Risk assessments	0.23	Core	
	Dam Safety Review	0.08	Core	
	Engineering Studies (flood, dam break, CRA etc)	0.13	Core	
	TOTAL FTE	**1.75**		





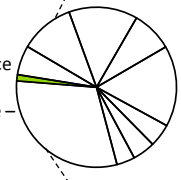
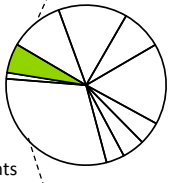
MAE – Asset Management (strategy and planning)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Performance and condition measurement and monitoring	Ad Hoc dam inspection	0.04	Core	
	Dam Instrumentation Data	0.32	Core	
	Water Treatment plant performance monitoring	1.43	Core	
	TOTAL FTE	**1.79**		
Risk Identification Assessment and Control	Asset and Facility Risk assessments	1.32	Core	
	Safety Inspections/Risk assessments	0.23	Core	
	Dam Safety Review	0.08	Core	
	Engineering Studies (flood, dam break, CRA etc)	0.13	Core	
	TOTAL FTE	**1.75**		

MAE – Asset Management (strategy and planning)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Establish/ Maintain Legal, Regulatory and other AM Requirements	Review and develop new SAMP	0.18	Core	
	Review and develop new SLMP	0.18	Core	
	Develop Drinking Water Quality management plan and reporting	0.60	Core	
	Metering	0.46	Core	
	TOTAL FTE	**1.42**		
Establish/ Maintain AM Information System	Update WMS planning	5.22	Core	
	Update Maintenance Plans	3.48	Core	
	Maintain/review maintenance standards (e.g. crane std)	0.69	Core	
	Maintain asset planning and safety standards	0.10	Core	
	Establish Project Scope & I&TP	0.34	Core	
	Project Closure/AUC Process	1.14	Core	
	Update Asset Register	0.27	Core	
	Continuous improvement of data quality	0.46	Core	
	TOTAL FTE	**11.70**		

MAE – Asset Management (performance and compliance)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Asset performance and Compliance – General 	▪ Insurer inspections	0.01	Core	
	▪ Participate in HAZOPs for new developments	0.11	Core	
	▪ Commission new assets	0.29	Core	
	▪ Regulatory and audit Committee Reporting	0.07	Core	
	TOTAL FTE	**0.48**		
Establish/ Maintain Legal, Regulatory and other AM Requirements 	▪ SAMP Audit & Annual SAMP Report	0.18	Core	
	▪ Annual NGER and EEO Report	0.28	Core	
	▪ Data Collection	0.05	Core	
	▪ SCADA	0.09	Core	
	▪ Review and update Dam O&M Manuals, EAPs, SOPs and dam data books	0.32	Core	
	▪ Review and update Non Dam O&M Manuals	1.37	Core	
	TOTAL FTE	**2.29**		

MAE – Asset Management (performance and compliance)

Mission	Key activities	FTE's	Core / Non core	Potential opportunity
Operational Control	Manage R&E Projects	0.69	Core	
	Responding to operational issues - Level 3 & 4 Support	1.38	Core	
	Meter installation design	0.69	Core	
	Survey/Set out work	0.21	Core	
	SCADA/Telemetry Issues	0.30	Core	
	IT&P	0.86	Core	
	Emergency Preparedness and response - Dam Safety event management	0.10	Core	
		4.22		
Performance and condition measurement and monitoring	Periodic dam and weir inspections	0.89	Core	
	Comprehensive Dam inspection	0.38	Core	
	R&E program monitoring and reporting	0.11	Core	
	EEO Assessments	0.77	Core	
	Review of Tariffs of pumping strategies	0.19	Core	
	Periodic inspection of facilities	2.16	Core	
	ACM Reviews	0.43	Core	
	Maintenance program monitoring and reporting	0.11	Core	
	Asset Related failures, incidents, non conformances and corrective and preventive action	0.30	Core	
		5.35		

MAE – HSEQ (Management and audit)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
HSEQ Management	GM and Administrator	HSEQ Leadership & Group Management	2.0	Core	
	Environment Management	Review of documents and scheme EMPs, implement improvements, Registers, O&T's	0.9	Core	
	Health and safety Management		0.7	Core	
	Quality Management		0.9	Core	
		TOTAL FTE	**4.5**		
Audit	Environment	Audits Performed	1.4	Core	
	Health and safety		1.3	Core	
	Quality		0.4	Core	
		TOTAL FTE	**3.1**		

MAE – HSEQ (Training and incidents)

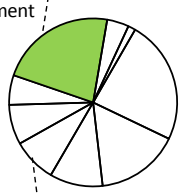
Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Training and Development	▪ Environment (training for management system, compliance and development across the business)	▪ Total of 142 training sessions held ▪ Needs analysis survey conducted	0.8	Core	✓ Potential to consolidate training sessions
	▪ Health and safety (training for management system, compliance, development and chemical across the business)	▪ 50 x training sessions held per area for a total of 175 ▪ Needs analysis survey conducted	1.0	Core	✓ Potential to consolidate training sessions
	▪ Quality - Deliver Management System related training (including project & portfolio management)	▪ 10 x training sessions held per area for a total of 175	0.2	Core	
		TOTAL FTE	**1.9**		
Incidents and investigations	▪ Environment (Follow up incidents & capture recommended corrective actions and some detailed investigations)	▪ 70 x Incident Reports Completed and 30 x detailed investigations ▪ 30 x fish death notifications	0.7	Core	
	▪ Health and safety (Follow up incidents & capture recommended corrective actions and some detailed investigations)	▪ 70 x Incident Reports Completed and 30 x detailed investigations	0.6	Core	
	▪ Quality(Follow up incidents & capture recommended corrective actions and some detailed investigations)	▪ 70 x Incident Reports Completed and 30 x detailed investigations	0.4	Core	
		TOTAL FTE	**1.6**		

MAE – HSEQ (Comms and BI projects)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
HSEQ internal Comms	▪ Environment (management system updates, internal meetings, HSEQ Forum, site reports)	▪ 12 x management updates, 40 x meeting and forum attendance and 14 x site reports completed	0.7	Core	✓ Appears high - Potential to review for efficiency
	▪ Health and safety (management system updates, internal meetings, HSEQ Forum, site reports)		0.5	Core	✓ Appears high - Potential to review for efficiency
	▪ Quality (management system updates, internal meetings, HSEQ Forum, site reports)		0.2	Core	✓ Appears high - Potential to review for efficiency
		TOTAL FTE	**1.5**		
Business Improvement Projects	▪ Environment	▪ Project delivery, reports and strategies	0.3	Non-core	Recommended
	▪ Health and safety		0.2	Non-core	Recommended
	▪ Quality		0.7	Non-core	Recommended
		TOTAL FTE	**1.1**		

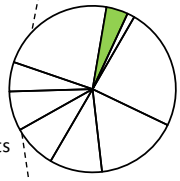
MAE – HSEQ (Environment projects)

Environment projects



Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
	▪ Contaminated land project	▪ Bundy Investigation Project completed	0.1	Core	
	▪ Environmental Approvals ERAs - provide advise in relation to approval conditions	▪ In put into annual renewal of de-silting, STP, WTP licences	0.1	Core	
	▪ Engagement by ID/IM for HSEQ Risk assessments - Assistance, Expertise & WMS	▪ As required	0.1	Core	
	▪ HSE Pre Construction Checklist (CM1-F1)	▪ Project risk assessment	0.1	Core	
	▪ EMPs - new projects	▪ EMP (advice and drafting)	0.4	Core	
	▪ Environmental Approvals for projects (RPPs), and flood repair approvals	▪ e.g. SPA application, Riverine Protection Permit	0.3	Core	
	▪ Water Quality Reporting	▪ Annual ROP/BGA report to DERM	0.1	Core	
	▪ Water Quality Advice	▪ advice ROP, ROL	0.0	Core	
	▪ Paradise Dam monitoring		1.1	Core	
	▪ Provision of services to ID on Project EISs	▪ Delivery to commitments set out in PMPs	1.5	Core	
	▪ Asset Maintenance - monitoring of env services associated with Barrattas (conservation agreement)	▪ Update and Maintenance of database	0.2	Core	
	▪ Far North Weed Maintenance schedule - advice investigation , weed ID, treatment and management options. Mimosa pigra,	▪ As required	0.2	Core	
	▪ Irrigation Channel Leakage reduction Project (Div Re)	▪ Attendance at modelling meetings	0.0	Core	
	▪ Dividend Reinvestment - Turtle Way Project	▪ Env rep in region for env compliance	0.1	Core	
		TOTAL FTE	**4.30**		

MAE – HSEQ (Health and Safety projects)

Mission	Key activities	Deliverables	FTE's	Core / Non core	Potential opportunity
Health and Safety projects 	▪ Chemical - MSDS / Chemical Evaluation		0.1	Core	
	▪ Respond to business requests to analyse patterns and trends from specific incident & investigation data		0.1	Core	
	▪ Engagement by ID/IM for HSEQ Risk assessments - Assistance, Expertise & WMS		0.1	Core	
	▪ Requests to review and develop lessons learnt from IM/ID projects		0.0	Core	
	▪ Develop Construction Safety Plans	▪ Safety Plans developed	0.1	Core	
	▪ Safe Design Reviews	▪ Design Reviews complete	0.1	Core	
	▪ HSE Pre Construction Checklist (CM1-F1)	▪ Checklists complete	0.1	Core	
	▪ Contractor - Induction, organisation & evaluations of safety management plans	▪ Input to inductions and contractor management	0.1	Core	
	▪ Traffic management plans	▪ Plans prepared	0.0	Core	
		TOTAL FTE	**0.8**		