Appendix 26

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Operational Benchmarking Study Final Report
(Marchment Hill Consulting)

MARCHMENT HILL consulting

Gladstone Area Water Board

EOI1-CO2009-001

Operational Benchmarking Study

FINAL Report

24th September 2009

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Executive Summary (1 of 6)

1. General

Marchment Hill Consulting (MHC) has conducted an independent benchmarking study covering Operational Expenditure, Capital Expenditure, number of Full Time Equivalents (FTEs) and Revenue to support Gladstone Area Water Board's (GAWB's) regulatory submission. The study has been based on comparing GAWB to the following Australian and New Zealand Bulk Water Authority peer group:

- Melbourne Water (Victoria);
- Aqwest Water (Western Australia);
- Sydney Catchment Authority (New South Wales);
- Hobart Water (Tasmania);
- Busselton Water (Western Australia);
- Rous Water (New South Wales); and
- WaterCare Services (Auckland, New Zealand).

The following public data sources have been used to support this benchmarking study:

- Annual Reports;
- Water Plans; and
- National Water Commission Performance Report/s.

A high level comparison between GAWB and the peer organisations (i.e. at the 'total' level' for operational expenditure, capital expenditure, full time equivalent staff and revenue) has been conducted based on Efficiency, Productivity, Cost and Revenue Ratios. A summary of the results has been tabulated in the following pages.

Executive Summary (2 of 6)

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2. Peer Group Scaling

For this benchmarking study, the **Peer Group Scaling** for a Bulk Water Authority is a measure of their physical size.

Organisation	Total FTEs	Water Sourced	Mains Length	Summary Comments
Melbourne Water	↑	↑	↑	• The scaling of Total FTEs, Water Sourced and Mains Length do not provide an indication of relative performance. • Total FTEs: – Lowest: 27 – Highest: 373 – GAWB: 39 GAWB is below the average number of FTEs of the peer group and is therefore categorised as a small bulk water authority within this peer group. • Water Sourced: – Lowest: 4 GL – Highest: 504 GL – GAWB: 46 GL GAWB is below the average amount of water sourced by the peer group, however, GAWB has a water sourced figure similar to a medium sized bulk water authority in the peer group. • Mains Length: – Lowest: 77 KM – Highest: 1281 KM – GAWB: 211 KM GAWB is below the average length of mains of the peer group. GAWB has a mains length figure which is comparable to other small bulk water authorities in the peer group.
Aqwest Water	↓	↓	↓	
Sydney Catchment Authority	↑	↑	ND	
Hobart Water	↓	↓	≈	
Busselton Water	↓	↓	↓	
Rous Water	ND	↓	↓	
WaterCare Services	↑	≈	↑	
GAWB	↓	↓	↓	

↑ Above the Average Size of Peer Group ≈ Close To Average Size of Peer Group ↓ Below the Average Size of Peer Group

Executive Summary (3 of 6)

3. Efficiency Ratios

For this benchmarking study, the **Efficiency Ratio** for a Bulk Water Authority is a measure of their spend efficiency (measured in percentage terms), and is defined as the ratio of their cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on financial indicators such as RAB, Water Sales and Total OPEX).

Organisation	Total OPEX as a proportion of RAB	Total CAPEX as a proportion of RAB	Total (OPEX + CAPEX) as a proportion of RAB	Total OPEX as a proportion of Water Sales	Total CAPEX as a proportion of Water Sales	Total (OPEX + CAPEX) as a proportion of Water Sales	Employee Benefits as a proportion of Total OPEX	Summary Comments
Melbourne Water								• A low (below average) Efficiency Ratio is optimal, and indicates a low cost base relative to size of the authority. • In all Efficiency Ratios involving OPEX, CAPEX and Total Spend as a proportion of RAB (not conclusive) or Water Sales, GAWB is below the average peer group ratio. • In many ratio cases, GAWB has the best, or is one of the best, ratios across the peer group.
Aqwest Water	ND	ND	ND					
Sydney Catchment Authority								
Hobart Water	ND	ND	ND					
Busselton Water	ND	ND	ND					
Rous Water	ND	ND	ND				ND	
WaterCare Services	ND	ND	ND				ND	
GAWB								

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Executive Summary (4 of 6)

4. Productivity Ratios

For this benchmarking study, the **Productivity Ratio** for a Bulk Water Authority is a measure of their workforce effectiveness (measured in FTE per size terms), and is defined as the ratio of their numbers of staff (i.e. based on Total FTEs) relative to their size (i.e. for this ratio 'size' is based on RAB, and typical physical indicators such as water sourced and mains length).

Organisation	Total FTEs as a proportion of RAB	Total FTEs as a proportion of Water Sourced	Total FTEs as a proportion of Mains Length	Summary Comments
Melbourne Water	🟢	🟢	🔴	• A low (below average) Productivity Ratio is optimal, and indicates a small number of staff relative to the size of the authority. • In all Productivity Ratios involving RAB (not conclusive), Water Sourced and Mains Length, GAWB is below the average peer group ratio. • For 'Total FTEs as a proportion of Water Sourced', GAWB has one of the best ratios across the peer group. • For 'Total FTEs as a proportion of Mains Length', GAWB is below the average peer group ratio.
Aqwest Water	ND	🔴	🟢	
Sydney Catchment Authority	🔴	🟢	ND	
Hobart Water	ND	🟢	🟢	
Busselton Water	ND	🔴	🟢	
Rous Water	ND	ND	ND	
WaterCare Services	ND	🟢	🔴	
GAWB	🟢	🟢	🟢	

🟢 Below The Average Peer Group Ratio 🟡 Close To Average Peer Group Ratio 🔴 Above The Average Peer Group Ratio

Executive Summary (5 of 6)

5. Cost Ratios

For this benchmarking study, the **Cost Ratio** for a Bulk Water Authority is a measure of their effectiveness in the allocation of expenditure (measured in cost per size terms), and is defined as the ratio of their cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as water sourced and mains length).

Organisation	Total OPEX as a proportion of Water Sourced	Total OPEX as a proportion of Mains Length	Total CAPEX as a proportion of Water Sourced	Total CAPEX as a proportion of Mains Length	Total (OPEX + CAPEX) as a proportion of Water Sourced	Total (OPEX + CAPEX) as a proportion of Mains Length	Summary Comments
Melbourne Water							• A low (below average) Cost Ratio is optimal, and indicates effective OPEX, CAPEX and Total Spend allocation relative to the size of the authority. • In most Cost Ratios, GAWB is below the average peer group ratio. • When 'water sourced' is used as the size indicator, GAWB exhibited some of the best ratios across the peer group.
Aqwest Water							
Sydney Catchment Authority		ND		ND		ND	
Hobart Water							
Busselton Water							
Rous Water							
WaterCare Services							
GAWB							

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Executive Summary (6 of 6)

6. Revenue Ratios

For this benchmarking study, the **Revenue Ratio** for a Bulk Water Authority is a measure of asset utilisation (measured in revenue per size terms), and is defined as the ratio of their sales (i.e. based on water sales) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as Total FTEs, water sourced and mains length).

Organisation	Water Sales as a proportion of Total FTEs	Water Sales as a proportion of Water Sourced	Water Sales as a proportion of Mains Length	Summary Comments
Melbourne Water	🔴	🔴	🟢	• A high (above average) Revenue Ratio is optimal, and indicates strong asset utilisation relative to the size of the authority. • For Revenue Ratios involving Total FTEs and Mains Length, GAWB is above the average peer group ratio. • For 'Water Sales as a proportion of Total FTEs', GAWB has the best ratio across the peer group. • For 'Water Sales as a proportion of Mains Length', GAWB has one of the best ratios across the peer group. • For 'Water Sales as proportion of Water Sourced', GAWB is marginally below the average peer group ratio.
Aqwest Water	🔴	🟢	🔴	
Sydney Catchment Authority	🟢	🔴	ND	
Hobart Water	🔴	🟡	🔴	
Busselton Water	🔴	🟢	🔴	
Rous Water	ND	🟢	🟢	
WaterCare Services	🔴	🔴	🟢	
GAWB	🟢	🔴	🟢	

🟢 Above The Average Peer Group Ratio 🟡 Close To Average Peer Group Ratio 🔴 Below The Average Peer Group Ratio

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Scope

The Gladstone Area Water Board (GAWB) engaged Marchment Hill Consulting in June 2009 to conduct an independent benchmarking study covering the key metrics of operational expenditure, capital expenditure, the number of Full Time Equivalent staff (FTEs) and revenue (based on water sales).

The methodology undertaken for this benchmarking study involved two phases of work as follows:

- Phase 1 focused on identifying the scope and approach for the benchmarking study; and
- Phase 2 focused on data mapping, and the collection and analysis of data.

Further details of the adopted methodology are contained in **Appendix A.**

It is understood that the outcomes of this study will be used as appropriate in GAWB's regulatory submissions.

It has been recognised that the quality of output for the benchmarking study is dependent on the information on peer Bulk Water Authorities that is available in the public domain. A wide range of sources have been reviewed to obtain various types of information including operational expenditure, capital expenditure, full time equivalent staff levels, employee levels, water sales, revenue and system characteristics. The following public data sources have been used to support this benchmarking study:

- Annual Reports;
- Water Plans; and
- National Water Commission Performance Report/s.

Further details of the data sources are contained in **Appendix B**.

Peer Group (1 of 3)

A strong Australian and International peer group consisting of Bulk Water Authorities from Australia and New Zealand form the basis of comparison for GAWB.

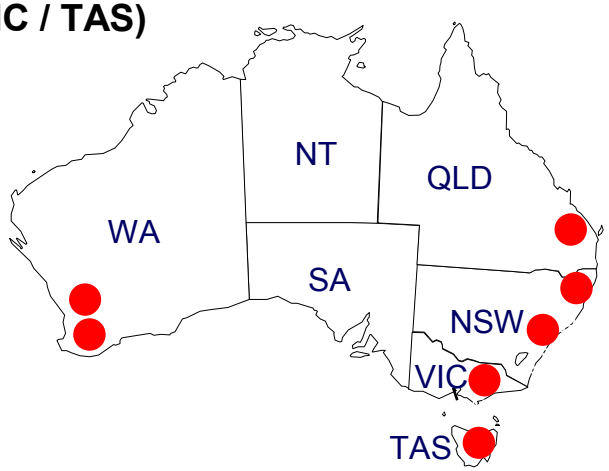
AUSTRALIA

New South Wales (NSW)
Sydney Catchment Authority

Queensland (QLD)
Gladstone Area Water Board (GAWB)

Western Australia (WA)
Aqwest Water
Busselton Water

Victoria / Tasmania (VIC / TAS)
Melbourne Water
Hobart Water



NEW ZEALAND

WaterCare Services (Auckland)

Peer Group (2 of 3)

The purpose of selecting an Australian and New Zealand peer group for comparison to GAWB was based on the unique characteristics of each organisation within the peer group. These characteristics are tabulated below.

Peer Organisation	Characteristics
Melbourne Water (Victoria)	• Undertake regular performance benchmarking through the International Water Association (IWA) and Water Services Association of Australia (WSAA), and are considered a 'best practice' bulk water authority in the Australia-Pacific region. • Provide a 'best practice' bulk water authority comparator for the Australian water industry. • Has large numbers of FTEs, water sourced and mains length figures in comparison to GAWB. • Provide the ability to incorporate the impact of scale on the measured ratios.
Aqwest Water (WA)	• Small, rural water authority providing water only services to a local community. • Has a similar number of employees and revenue statistics to GAWB. • Provide a small and similar sized bulk water authority comparator for GAWB.
Sydney Catchment Authority (NSW)	• Undertake regular performance benchmarking through the Water Services Association of Australia (WSAA). • Considered a good performer in the Australian water industry. • Only provide water services. • Has large numbers of FTEs and water sourced figures in comparison to GAWB. • Provide the ability to incorporate the impact of scale on the measured ratios.
Hobart Water (Tasmania)	• Undertake regular performance benchmarking through the International Water Association (IWA) and Water Services Association of Australia (WSAA). • Considered a good performer in the Australian water industry. • Only provide water services. • Has moderate numbers of FTEs and mains length figures in comparison to GAWB. • Has similar water sourced figures to GAWB.

Peer Group (3 of 3)

Peer Organisation	Characteristics
Busselton Water (WA)	• Small, rural water authority providing water only services to a local community. • Have a similar number of employees, revenue and mains length statistics to GAWB. • Provide a small and similar sized bulk water authority comparator for GAWB.
Rous Water (NSW)	• Small, rural water authority providing water only services to a local community. • Have similar revenue and mains length statistics to GAWB. • Provide a small and similar sized bulk water authority comparator for GAWB.
WaterCare Services (Auckland, New Zealand)	• Undertake regular performance benchmarking through the International Water Association (IWA) and Water Services Association of Australia (WSAA), and are considered a 'best practice' bulk water authority in the Australia-Pacific region. • Provide a 'best practice' comparator for the International water industry. • Have large numbers of FTEs, water sourced and mains length figures in comparison to GAWB. • Provide the ability to incorporate the impact of scale on the measured ratios.

Profile details of those Bulk Water Authorities in the peer group are contained in **Appendix C**.

The key source of information was the National Water Commission Performance Report/s, which contained information on all of the Bulk Water Authorities in the peer group. Marchment Hill Consulting considered other Bulk Water Authorities for inclusion the peer group, but the information provided on these authorities within the National Water Performance Report/s or through public domain channels was incomplete. Other authorities considered were:

- SA Water (SA)
- Goldenfields Water (NSW)
- Power and Water (Northern Territory)
- SEQWater (Qld)
- Gippsland Water (VIC)
- Water Corporation – Geraldton (WA)
- Water Corporation – Kalgoorlie - Boulder (WA)

Challenges

There were a number of challenges faced in the collection of data for the peer organisations. MHC, in collaboration with GAWB, dealt with each challenge as presented. These challenges included:

- Obtaining a consistent level of granularity across the peer organisations from the public domain. Some water utilities provide better information than others, but it proved difficult to obtain granular data (e.g. operating expenditure by business unit, capital expenditure by business unit, FTEs by business unit, employees by business unit, etc) from the public domain.
- There is limited consistency in the definitions adopted for the reporting of cost items in annual and other financial reports. For example, accurate identification of the categorisation and incorporation of overheads and tax treatment within operating expenditure, capital expenditure and total expenditure across the individual business units of an organisation proved difficult.
- Small water organisations that are incorporated into councils sometimes have water specific functions embedded within other council functions. The only council based organisation in the peer group is Rous Water. MHC undertook a detailed process of separating Rous Water data from Rous County Council data in the areas of operational expenditure, capital expenditure and revenue. However, it was not possible to identify FTE numbers specific to delivery of the water functions (noted clearly on relevant charts within this report).
- The sourcing arrangements for peer organisations (i.e. the ratio of internal to external staff) are not publicly available. While staff numbers were obtainable, it was difficult to ascertain whether these figures included internal only staff, or a combination of internal and external staff.
- Although some organisations provide a breakdown of full time equivalents (FTEs) into general functional areas, the accuracy of their FTE calculations is unknown, and it was difficult to determine the specific functions delivered in each of these general functional areas.

The above challenges did limit the analysis to a high level comparison between GAWB and the peer group (i.e. at the 'total level' for operational expenditure, capital expenditure, full time equivalent staff and revenue).

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Analysis of Results – Chart Overview

The following list of charts are contained in this section of the report where:

- Data definitions are contained in **Appendix D**.
- Key assumptions are contained in **Appendix E**.

Efficiency Ratios

- Total OPEX as a proportion of RAB
- Total CAPEX as a proportion of RAB
- Total (OPEX + CAPEX) as a proportion of RAB
- Total OPEX as a proportion of Water Sales
- Total CAPEX as a proportion of Water Sales
- Total (OPEX + CAPEX) as a proportion of Water Sales
- Employee Benefits as a proportion of Total OPEX

Cost Ratios

- Total OPEX as a proportion of Water Sourced
- Total OPEX as a proportion of Mains Length
- Total CAPEX as a proportion of Water Sourced
- Total CAPEX as a proportion of Mains Length
- Total (OPEX + CAPEX) as a proportion of Water Sourced
- Total (OPEX + CAPEX) as a proportion of Mains Length

Productivity Ratios

- Total FTEs as a proportion of RAB
- Total FTEs as a proportion of Water Sourced
- Total FTEs as a proportion of Mains Length

Revenue Ratios

- Water Sales as a proportion of Total FTEs
- Water Sales as a proportion of Water Sourced
- Water Sales as a proportion of Mains Length

Analysis of Results - Summary of Peer Group Scaling

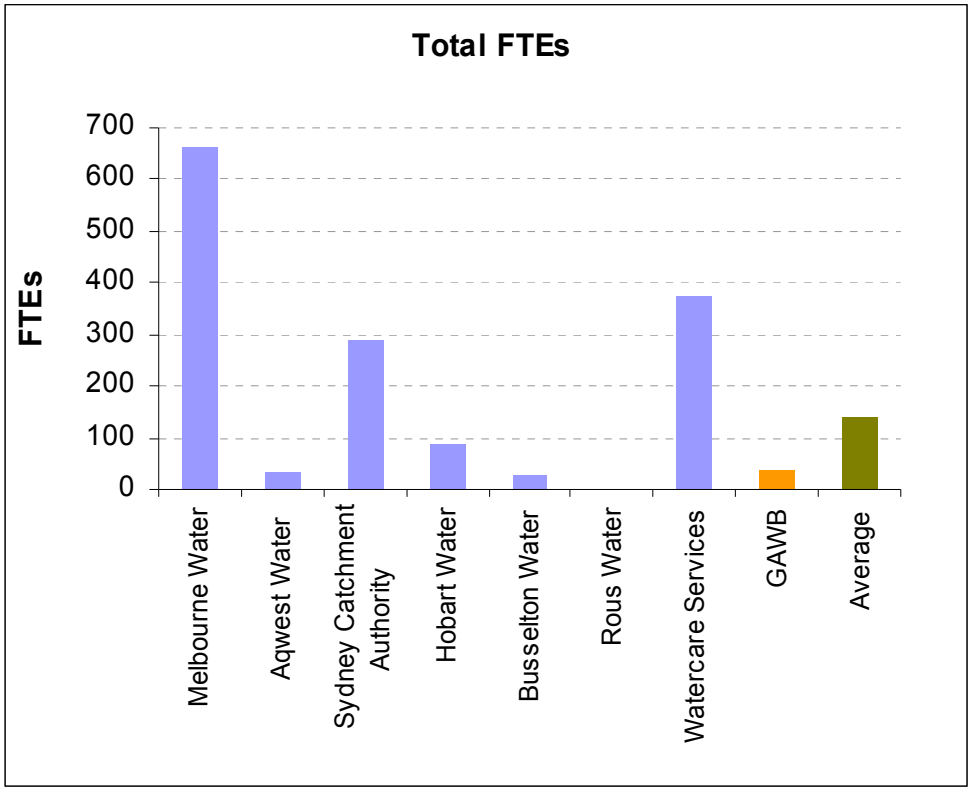
For this benchmarking study, the **Peer Group Scaling** for a Bulk Water Authority is a measure of their physical size.

Organisation	Total FTEs	Water Sourced	Mains Length	Summary Comments
Melbourne Water	↑	↑	↑	• The scaling of Total FTEs, Water Sourced and Mains Length do not provide an indication of relative performance. • Total FTEs: – Lowest: 27 – Highest: 373 – GAWB: 39 GAWB is below the average number of FTEs of the peer group and is therefore categorised as a small bulk water authority within this peer group. • Water Sourced: – Lowest: 4 GL – Highest: 504 GL – GAWB: 46 GL GAWB is below the average amount of water sourced by the peer group, however, GAWB has a water sourced figure similar to a medium sized bulk water authority in the peer group. • Mains Length: – Lowest: 77 KM – Highest: 1281 KM – GAWB: 211 KM GAWB is below the average length of mains of the peer group. GAWB has a mains length figure which is comparable to other small bulk water authorities in the peer group.
Aqwest Water	↓	↓	↓	
Sydney Catchment Authority	↑	↑	ND	
Hobart Water	↓	↓	≈	
Busselton Water	↓	↓	↓	
Rous Water	ND	↓	↓	
WaterCare Services	↑	≈	↑	
GAWB	↓	↓	↓	

↑ Above the Average Size of Peer Group ≈ Close To Average Size of Peer Group ↓ Below the Average Size of Peer Group

Analysis of Results – Peer Group Scaling (1 of 3)

Total FTEs



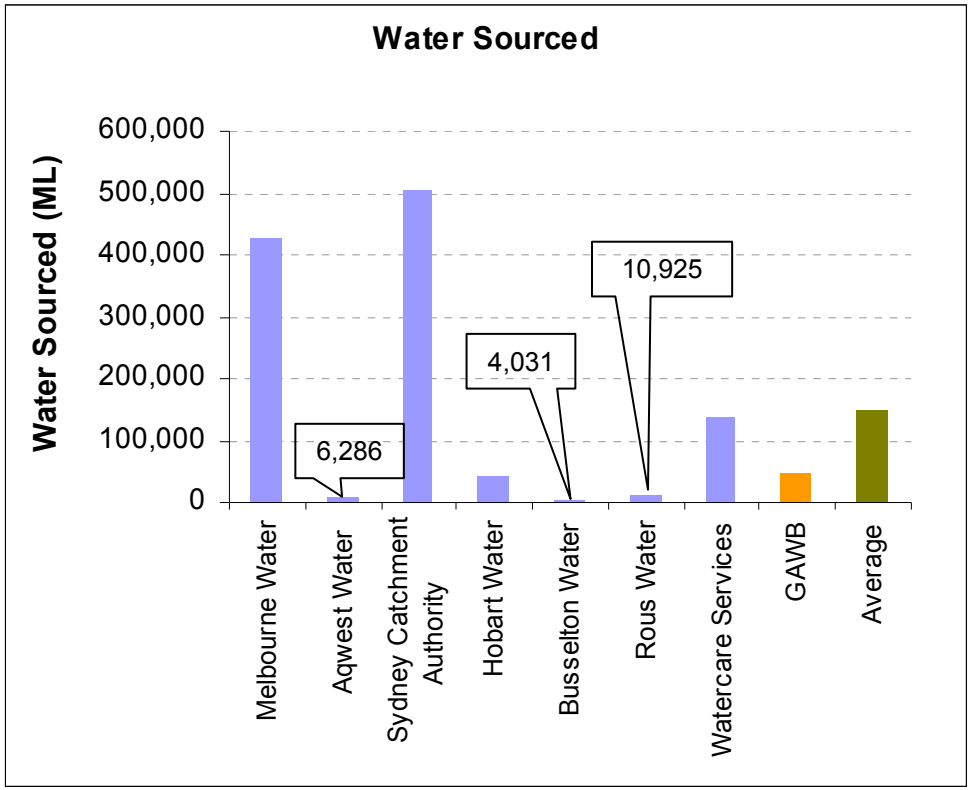
NOTES:

- FTE or number of employees data was not available for Rous Water.
- The total number of employees was used for WaterCare Services and Hobart Water, since the total FTEs figure was not available.
- Melbourne Water FTEs and number of employees statistics specific to the water function could not be extracted. Melbourne Water Total FTEs have been included in the chart to provide an indication of size, however, they have been excluded from the calculation of the average for the peer group.
- The total FTEs figure for GAWB excludes staff members associated with hatchery and recreation activities.

- The 'Total FTEs' attributed to large bulk water authorities within the peer group are as follows:
  - Melbourne Water: 663
  - Sydney Catchment Authority: 288
  - WaterCare Services: 373
- The 'Total FTEs' attributed to medium bulk water authorities within the peer group are as follows:
  - Hobart Water: 90
- The 'Total FTEs' attributed to small bulk water authorities within the peer group are as follows:
  - Aqwest Water: 34
  - Busselton Water: 27
  - GAWB: 39
  - Rous Water: Data N/A
- *GAWB is below the average number of FTEs of the peer group and is therefore categorised as a small bulk water authority within this peer group.*

Analysis of Results – Peer Group Scaling (2 of 3)

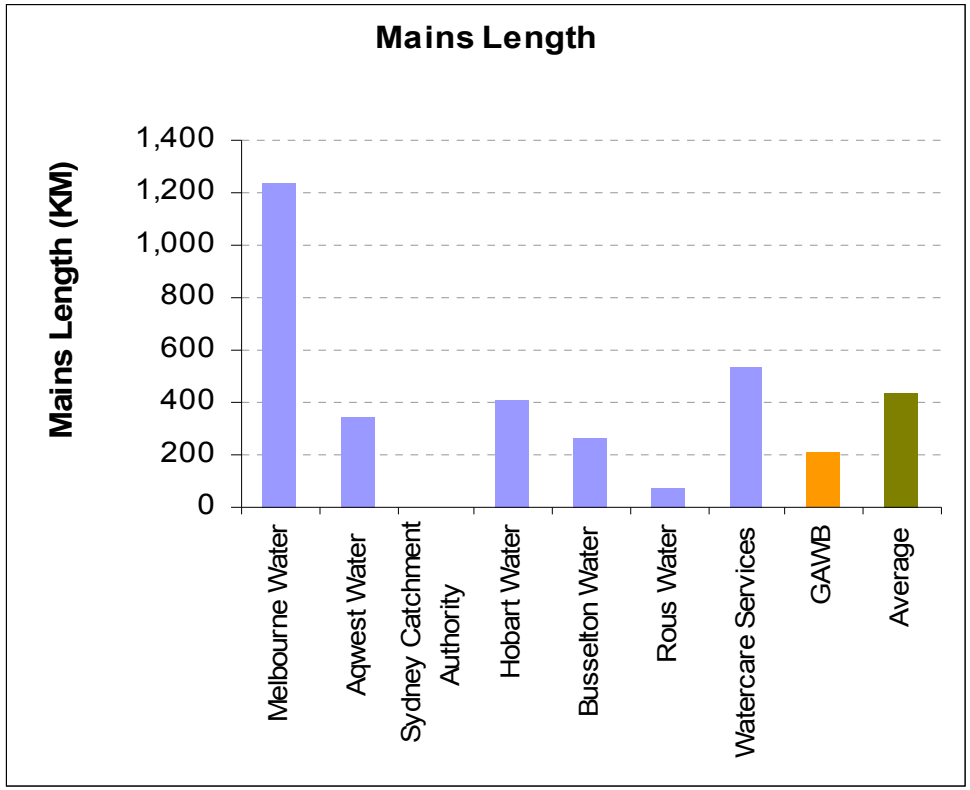
Water Sourced



- The 'Water Sourced' for large bulk water authorities within the peer group is as follows:
  - Melbourne Water: 426 GL
  - Sydney Catchment Authority: 504 GL
  - WaterCare Services: 138 GL
- The 'Water Sourced' for medium bulk water authorities within the peer group is as follows:
  - Hobart Water: 41 GL
- The 'Water Sourced' for small bulk water authorities within the peer group is as follows:
  - Aqwest Water: 6 GL
  - Busselton Water: 4 GL
  - GAWB: 46 GL
  - Rous Water: 11 GL
- *GAWB has a water sourced figure similar to a medium sized bulk water authority in the peer group.*

Analysis of Results – Peer Group Scaling (3 of 3)

Mains Length



NOTES:

- Data not available for Sydney Catchment Authority.

- The 'Mains Length' attributed to large bulk water authorities within the peer group are as follows:
  - Melbourne Water: 1281 KM
  - Sydney Catchment Authority: Data N/A
  - WaterCare Services: 540 KM
- The 'Mains Length' attributed to medium bulk water authorities within the peer group are as follows:
  - Hobart Water: 421 KM
- The 'Mains Length' attributed to small bulk water authorities within the peer group are as follows:
  - Aqwest Water: 355 KM
  - Busselton Water: 270 KM
  - GAWB: 211 KM
  - Rous Water: 77 KM
- *GAWB has a mains length figure which is comparable to other small bulk water authorities in the peer group.*

Analysis of Results - Summary of Efficiency Ratios

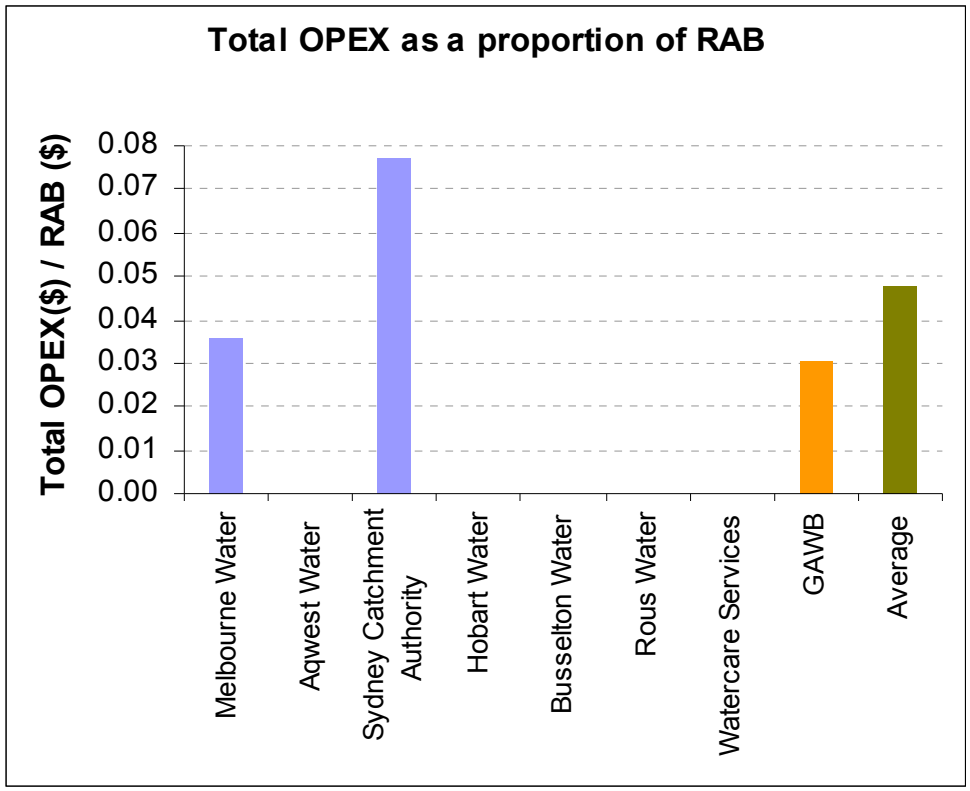
For this benchmarking study, the **Efficiency Ratio** for a Bulk Water Authority is a measure of their spend efficiency (measured in percentage terms), and is defined as the ratio of their cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on financial indicators such as RAB, Water Sales and Total OPEX).

Organisation	Total OPEX as a proportion of RAB	Total CAPEX as a proportion of RAB	Total (OPEX + CAPEX) as a proportion of RAB	Total OPEX as a proportion of Water Sales	Total CAPEX as a proportion of Water Sales	Total (OPEX + CAPEX) as a proportion of Water Sales	Employee Benefits as a proportion of Total OPEX	Summary Comments
Melbourne Water								• A low (below average) Efficiency Ratio is optimal, and indicates a low cost base relative to size of the authority. • In all Efficiency Ratios involving OPEX, CAPEX and Total Spend as a proportion of RAB (not conclusive) or Water Sales, GAWB is below the average peer group ratio. • In many ratio cases, GAWB has the best, or is one of the best, ratios across the peer group.
Aqwest Water	ND	ND	ND					
Sydney Catchment Authority								
Hobart Water	ND	ND	ND					
Busselton Water	ND	ND	ND					
Rous Water	ND	ND	ND				ND	
WaterCare Services	ND	ND	ND				ND	
GAWB								

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Analysis of Results – Efficiency Ratios (1 of 7)

Total OPEX as a proportion of RAB



NOTES:

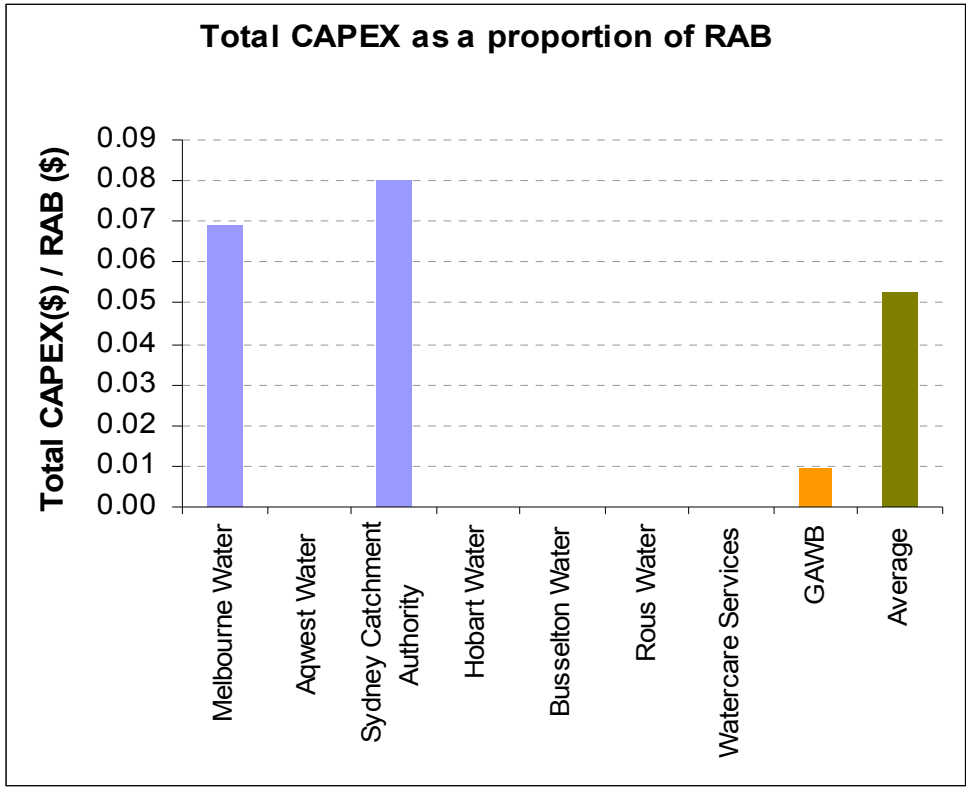
- Given the size of the comparison group for this metric, these results are not statistically significant and are not conclusive.
- RAB data not available for Aqwest Water, Hobart Water, Busselton Water, Rous Water and WaterCare Services.
- For this Efficiency Ratio, Melbourne Water's RAB and OPEX data includes both water and wastewater.
- It is assumed that Melbourne Water's OPEX to RAB ratio for both water and wastewater is representative of the OPEX to RAB ratio for water only.

GAWB Observations

- Charting of 'Total OPEX as a proportion of RAB' for three water authorities (i.e. Melbourne Water, Sydney Catchment Authority and GAWB), has shown that GAWB exhibits the lowest ratio of all within the peer group.
- GAWB compare favourably to two large bulk water authorities (i.e. Melbourne Water and Sydney Catchment Authority), which would be expected to have economies of scale advantages for OPEX in comparison to GAWB.
- *Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's OPEX as a proportion of RAB ratio is below than average peer group ratio.*

Analysis of Results – Efficiency Ratios (2 of 7)

Total CAPEX as a proportion of RAB



NOTES:

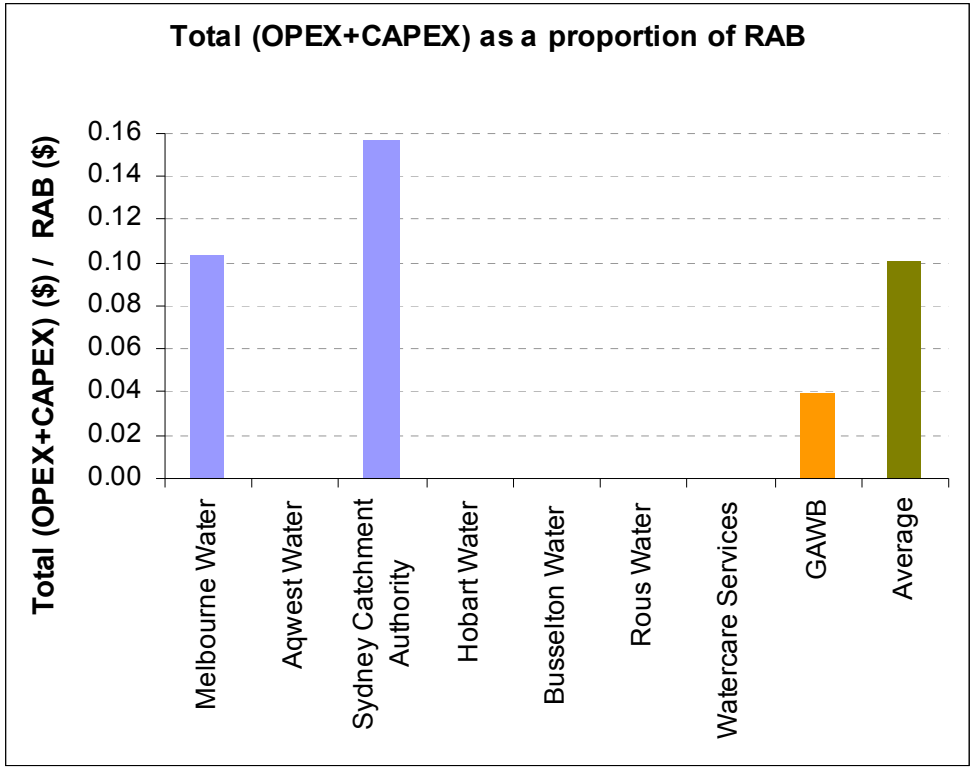
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Given the size of the comparison group for this metric, these results are not statistically significant and are not conclusive.
- RAB data not available for Aqwest Water, Hobart Water, Busselton Water, Rous Water and WaterCare Services.
- For this Efficiency Ratio, Melbourne Water's RAB and CAPEX data includes both water and wastewater.
- It is assumed that Melbourne Water's CAPEX to RAB ratio for both water and wastewater is representative of the CAPEX to RAB ratio for water only.

GAWB Observations

- Charting of 'Total CAPEX as a proportion of RAB' for three water authorities (i.e. Melbourne Water, Sydney Catchment Authority and GAWB) has shown that GAWB again exhibits the lowest ratio of all within the peer group.
- GAWB compare favourably to two large bulk water authorities (i.e. Melbourne Water and Sydney Catchment Authority), which would be expected to have economies of scale advantages for CAPEX in comparison to GAWB.
- *Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's CAPEX as a proportion of RAB ratio is below the average peer group ratio.*

Analysis of Results – Efficiency Ratios (3 of 7)

Total (OPEX + CAPEX) as a proportion of RAB



NOTES:

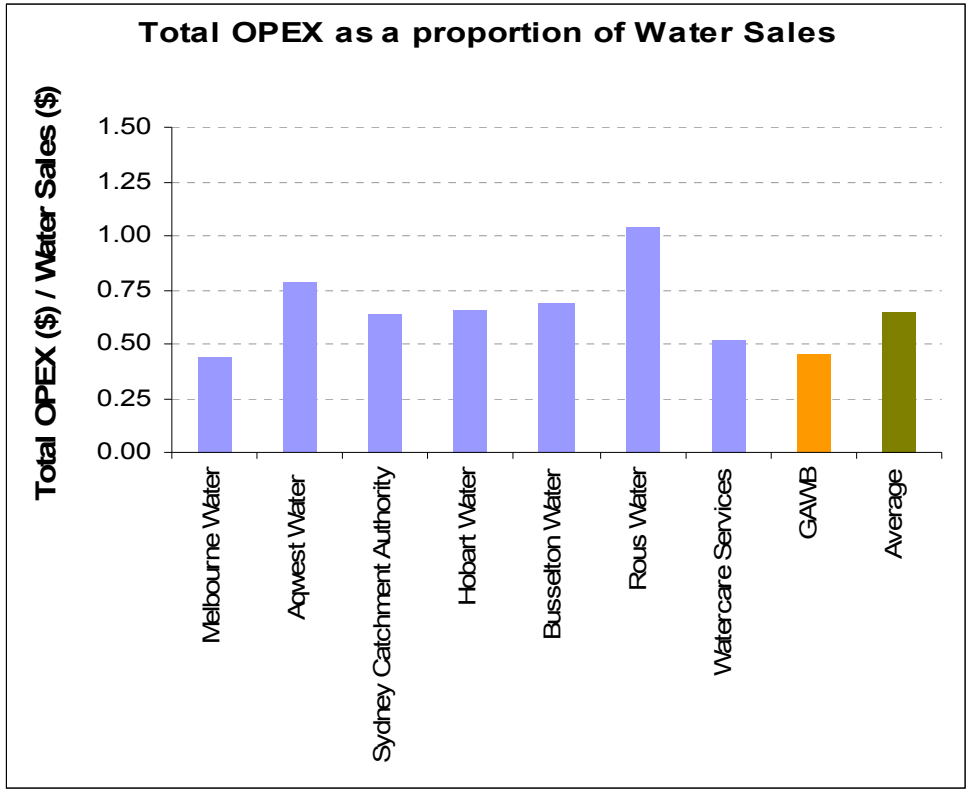
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Given the size of the comparison group for this metric, these results are not statistically significant and are not conclusive.
- RAB data not available for Aqwest Water, Hobart Water, Busselton Water, Rous Water and WaterCare Services.
- For this Efficiency Ratio, Melbourne Water's RAB, OPEX and CAPEX data includes both water and wastewater.
- It is assumed that the Melbourne Water's OPEX+CAPEX to RAB ratio for both water and wastewater is representative of the OPEX+CAPEX to RAB ratio for water only.

GAWB Observations

- GAWB exhibits the lowest ratio of all in the peer group for:
  - Total OPEX as a proportion of RAB, and
  - Total CAPEX as a proportion of RAB.
  - When 'Total (OPEX + CAPEX) as a proportion of RAB' is charted against the same peer group, GAWB again exhibits the lowest ratio of all comparators.
- GAWB compare favourably to two large bulk water authorities (i.e. Melbourne Water and Sydney Catchment Authority), which would be expected to have economies of scale advantages for total spend (OPEX + CAPEX) in comparison to GAWB.
- *Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's total spend as a proportion of RAB ratio is below the average peer group ratio.*

Analysis of Results – Efficiency Ratios (4 of 7)

Total OPEX as a proportion of Water Sales



NOTES:

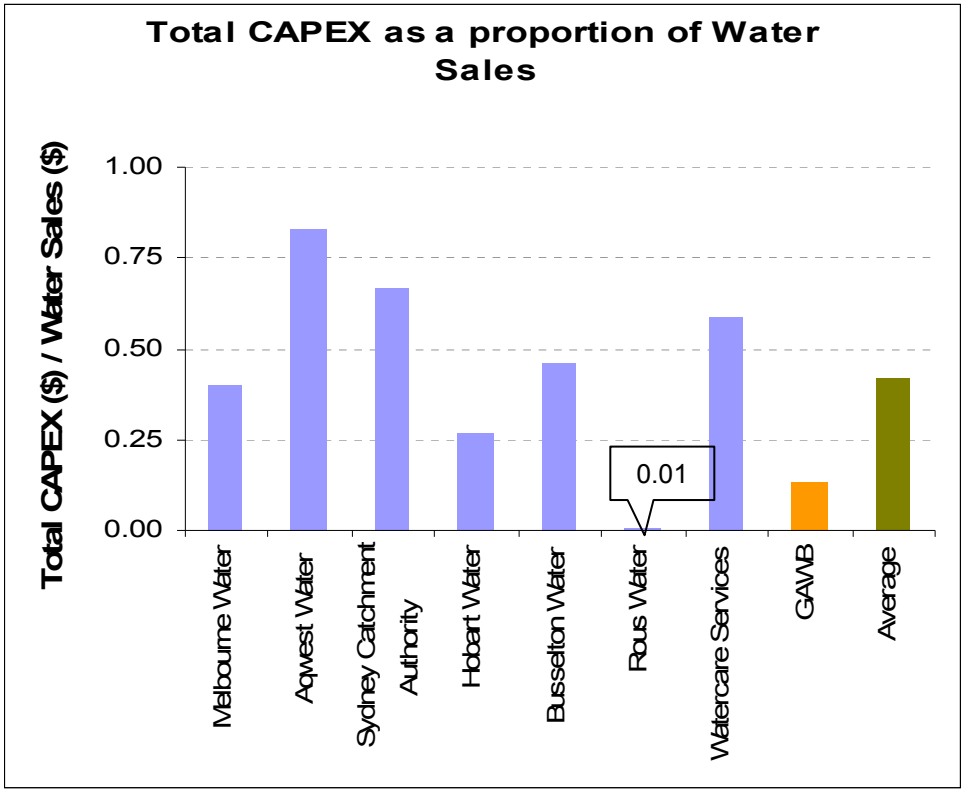
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.

GAWB Observations

- Low levels of Total OPEX support relatively high water sales figure (it should be noted that GAWB has similar water sales figures to a medium sized bulk water authority in the peer group).
- Based on 'Total OPEX as a proportion of Water Sales', GAWB has one of the lowest OPEX in the peer group proportional to the value of water sales.
- GAWB compare favourably to bulk water authorities in the comparison group with a similar water sales figure (i.e. Hobart Water).
- GAWB also compare very favourably to all of the small bulk water authorities in the comparison group (i.e. Aqwest Water, Busselton Water and Rous Water).
- *GAWB has one of the best OPEX as a proportion of water sales ratios for the peer group, indicating a very low operating cost base given the magnitude of their water sales.*

Analysis of Results – Efficiency Ratios (5 of 7)

Total CAPEX as a proportion of Water Sales



NOTES:

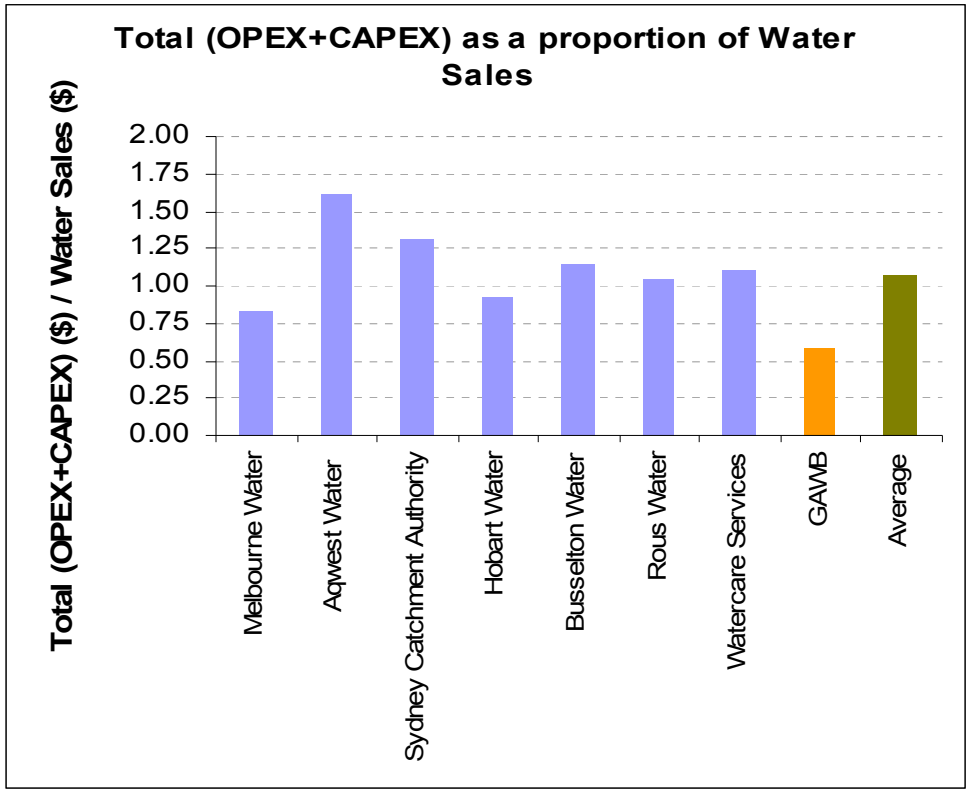
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.

GAWB Observations

- Low levels of Total CAPEX support relatively high water sales figures.
- Based on 'Total CAPEX as a proportion of Water Sales', GAWB exhibit one of the lowest ratios in the peer group.
- GAWB compare very favourably to bulk water authorities in the peer group with a similar water sales figure (i.e. Hobart Water).
- GAWB also compare very favourably to most small bulk water authorities in the peer group (particularly Aqwest Water and Busselton Water).
- *GAWB has one of the best ratios for CAPEX as a proportion of water sales across the peer group, indicating very low capital cost given the magnitude of their water sales figure.*

Analysis of Results – Efficiency Ratios (6 of 7)

Total (OPEX + CAPEX) as a proportion of Water Sales



NOTES:

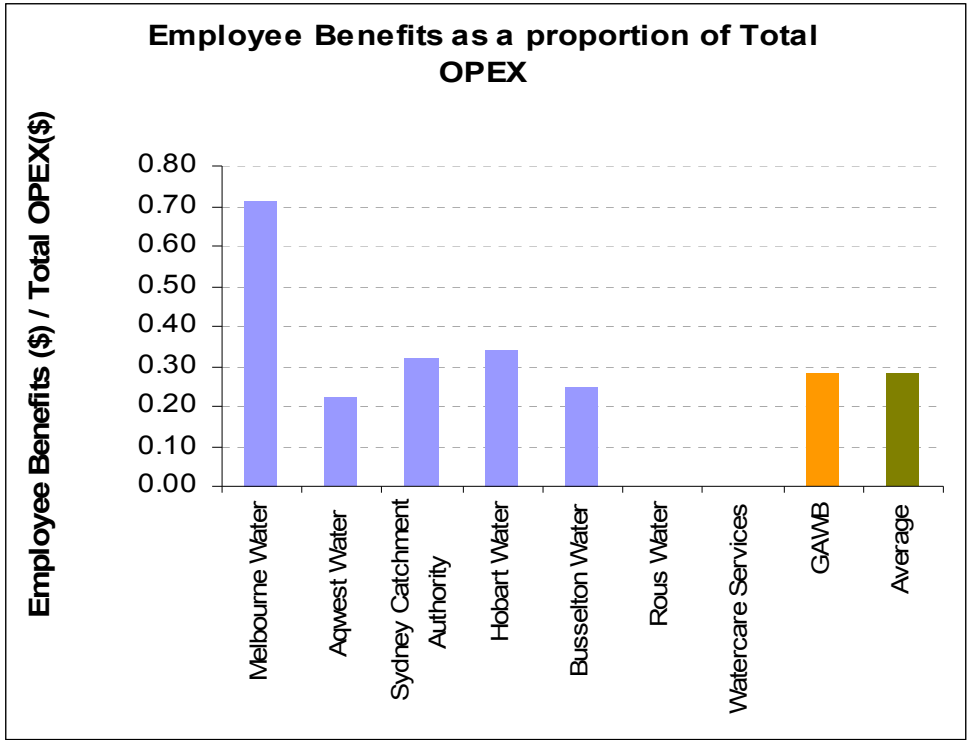
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.

GAWB Observations

- GAWB exhibits one of the lowest ratios of all in the peer group for:
  - Total OPEX as a proportion of Water Sales, and
  - Total CAPEX as a proportion of Water Sales.
  - When 'Total (OPEX + CAPEX) as a proportion of Water Sales' is charted against the same peer group, GAWB exhibits the lowest ratio of all comparators.
- GAWB compare favourably to all of the large bulk water authorities in the peer group, which would be expected to have economies of scale advantages for total spend in comparison to GAWB.
- GAWB also compare very favourably to all of the small bulk water authorities in the peer group.
- *GAWB has the best total spend as a proportion of water sales ratio for the peer group, indicating a very low cost base supports a relatively high water sales figure.*

Analysis of Results – Efficiency Ratios (7 of 7)

Employee Benefits as a proportion of Total OPEX



NOTES:

- Employee benefits data could not be extracted from Rous Water's annual report.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.
- Melbourne Water employees benefits covers all business functions (i.e. not specific to the water function only). Melbourne Water have been included in the chart to provide an indication of size, however, they have been excluded from the calculation of the group average. This data was obtained from Annual Reports.

GAWB Observations

- Employee Benefits include:
  - Salary expenses
  - Post employment benefits
  - Annual and long service expenses
  - Shift leave expenses, and
  - Other employee expenses.
- In relation to 'Employee Benefits as a proportion of Total OPEX', GAWB compares favourably to a peer group constituting a number of large and medium bulk water authorities (i.e. Sydney Catchment Authority and Hobart Water).
- *GAWB's employee benefits as a proportion of OPEX ratio is close to average peer group ratio, indicating their employees are remunerated according to standard market rates.*

Analysis of Results - Summary of Productivity Ratios

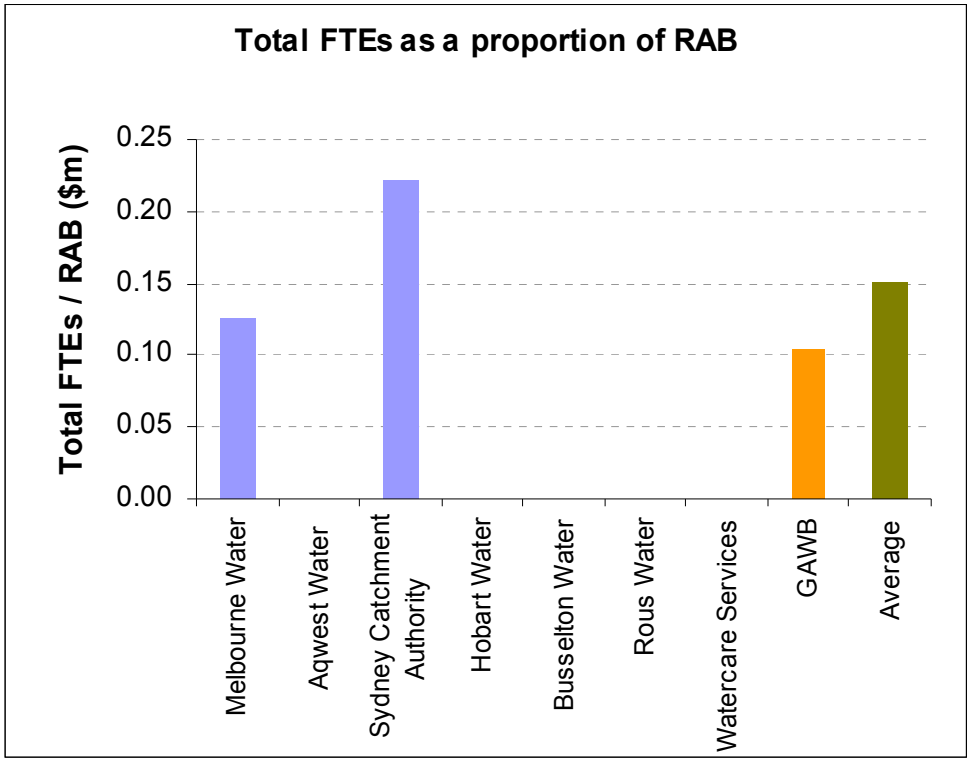
For this benchmarking study, the **Productivity Ratio** for a Bulk Water Authority is a measure of their workforce effectiveness (measured in FTE per size terms), and is defined as the ratio of their numbers of staff (i.e. based on Total FTEs) relative to their size (i.e. for this ratio 'size' is based on RAB, and typical physical indicators such as water sourced and mains length).

Organisation	Total FTEs as a proportion of RAB	Total FTEs as a proportion of Water Sourced	Total FTEs as a proportion of Mains Length	Summary Comments
Melbourne Water				• A low (below average) Productivity Ratio is optimal, and indicates a small number of staff relative to the size of the authority. • In all Productivity Ratios involving RAB (not conclusive), Water Sourced and Mains Length, GAWB is below the average peer group ratio. • For 'Total FTEs as a proportion of Water Sourced', GAWB has one of the best ratios across the peer group. • For 'Total FTEs as a proportion of Mains Length', GAWB is below the average peer group ratio.
Aqwest Water	**ND**			
Sydney Catchment Authority			**ND**	
Hobart Water	**ND**			
Busselton Water	**ND**			
Rous Water	**ND**	**ND**	**ND**	
WaterCare Services	**ND**			
GAWB				

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Analysis of Results – Productivity Ratios (1 of 3)

Total FTEs as a proportion of RAB



NOTES:

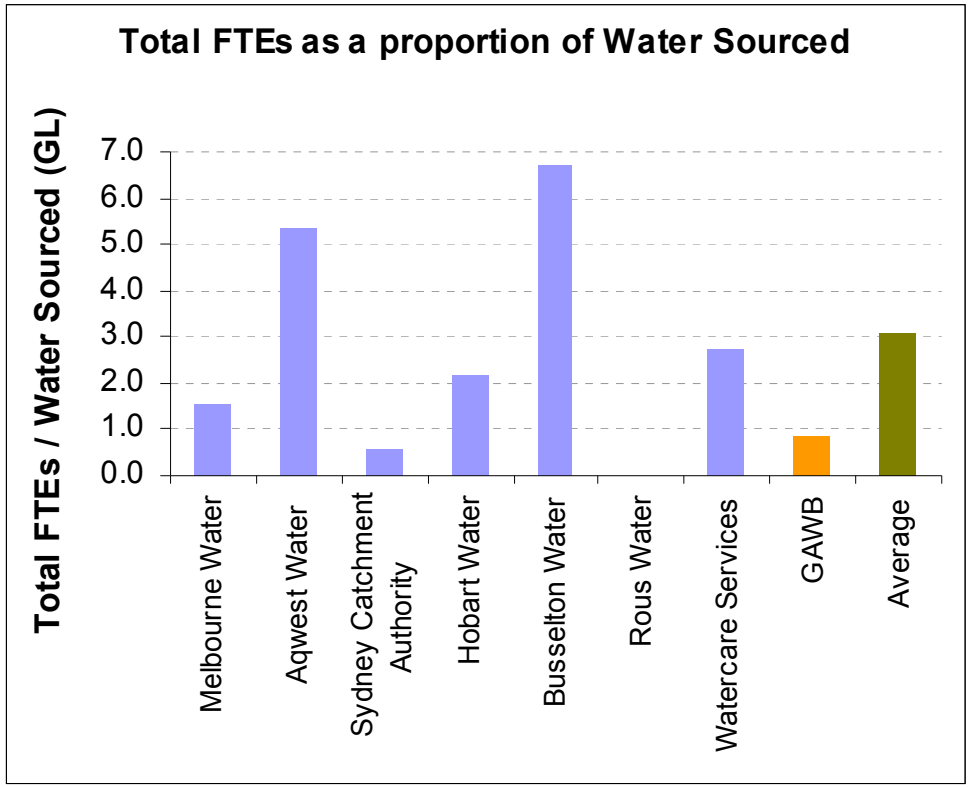
- Given the size of the comparison group for this metric, these results are not statistically significant and are not conclusive.
- FTE or number of employees data was not available for Rous Water.
- The total number of employees was used for WaterCare Services and Hobart Water.
- The total FTEs figure for GAWB excludes staff members for hatchery and recreation.
- Melbourne Water's total number of employees (i.e. for all of their business functions) has been used, since their RAB figure includes all of Melbourne Water's water and wastewater assets. It is assumed that Melbourne Water's FTE to RAB ratio for both water and wastewater is representative of the FTE to RAB ratio for water only.
- RAB data not available for Aqwest Water, Hobart Water, Busselton Water, Rous Water and WaterCare Services.

GAWB Observations

- Based on the charting of three water authorities for 'Total FTEs as a proportion of RAB' (i.e. Melbourne Water, Sydney Catchment Authority and GAWB), GAWB exhibits the lowest ratio of all within the peer group.
- Given the direct contribution of the number of FTEs to OPEX, similar trends exist for the results of 'Total FTEs as a proportion of RAB' and 'Total OPEX as a proportion of RAB'.
- *Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's number of FTEs as a proportion of RAB ratio is below the average peer group ratio.*

Analysis of Results – Productivity Ratios (2 of 3)

Total FTEs as a proportion of Water Sourced



NOTES:

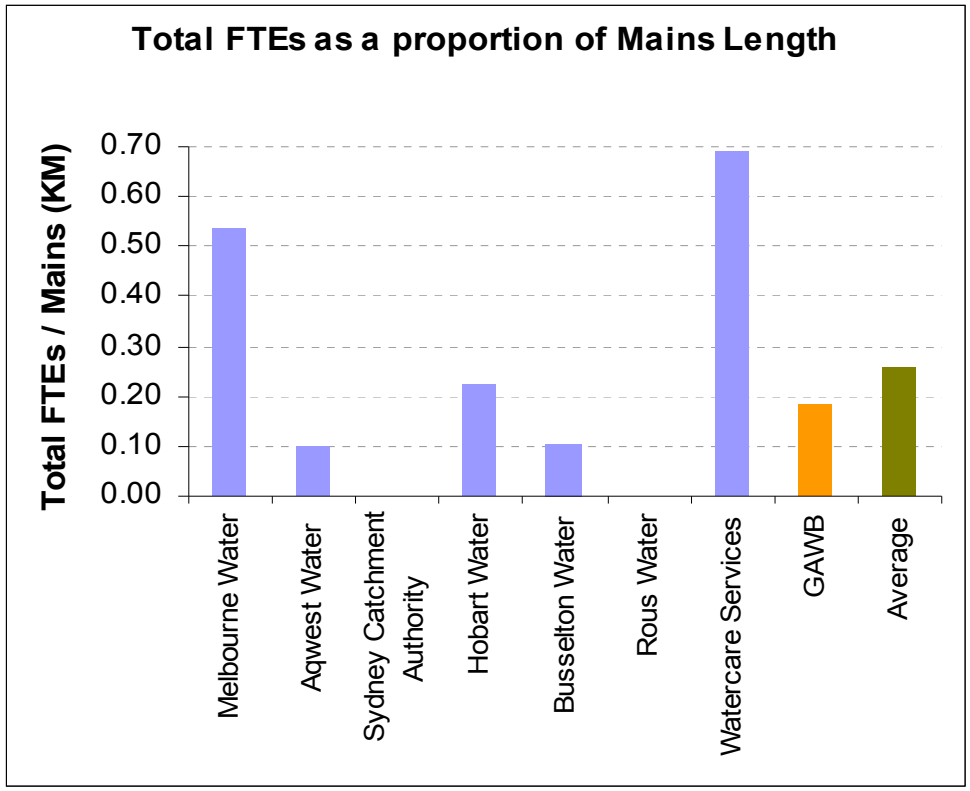
- FTE or number of employees data was not available for Rous Water.
- The total number of employees was used for WaterCare Services and Hobart Water, since the total FTEs figure was not available.
- Melbourne Water FTEs and number of employees statistics specific to the water function could not be extracted. Melbourne Water Total FTEs have been included in the chart to provide an indication of size, however, they have been excluded from the calculation of the average for the peer group.
- The total FTEs figure for GAWB excludes staff members associated with hatchery and recreation activities.

GAWB Observations

- A small number of FTEs within GAWB are able to deliver a relatively high water sourced figure (as previously noted GAWB has similar water sourced characteristics to a medium sized bulk water authority in the peer group).
- GAWB maintain a relatively small workforce through effective sourcing arrangements, and the ability to focus on fewer, large customers.
- Based on 'Total FTEs as a proportion of Water Sourced', GAWB require one of the lowest number of FTEs in the peer group proportional to the volume of water sourced.
- GAWB compare favourably to bulk water authorities in the peer group with a similar water sourced figure (i.e. Hobart Water).
- *GAWB has one of the best number of FTEs as a proportion of water sourced ratios for the entire peer group, indicating a very effective workforce relative to water sourced.*

Analysis of Results – Productivity Ratios (3 of 3)

Total FTEs as a proportion of Mains Length



NOTES:

- FTE or number of employees data was not available for Rous Water.
- The total number of employees was used for WaterCare Services and Hobart Water, since the total FTEs figure was not available.
- Melbourne Water FTEs and number of employees statistics specific to the water function could not be extracted. Melbourne Water Total FTEs have been included in the chart to provide an indication of size, however, they have been excluded from the calculation of the average for the peer group.
- The total FTEs figure for GAWB excludes staff members associated with hatchery and recreation activities.
- Mains length data not available for Sydney Catchment Authority.

GAWB Observations

- A small number of FTEs within GAWB are able to manage a small sized asset base.
- Based on 'Total FTEs as a proportion of Mains Length', GAWB require a low number of FTEs relative to the peer group to manage and maintain a proportional length of mains assets.
- GAWB exhibits reasonably comparable results to bulk water authorities in the peer group with similar mains length (i.e. Aqwest Water and Busselton Water).
- *GAWB's number of FTEs as a proportion of mains length ratio is below the average peer group ratio, indicating an effective workforce relative to the size of their asset base.*

Analysis of Results – Summary of Cost Ratios

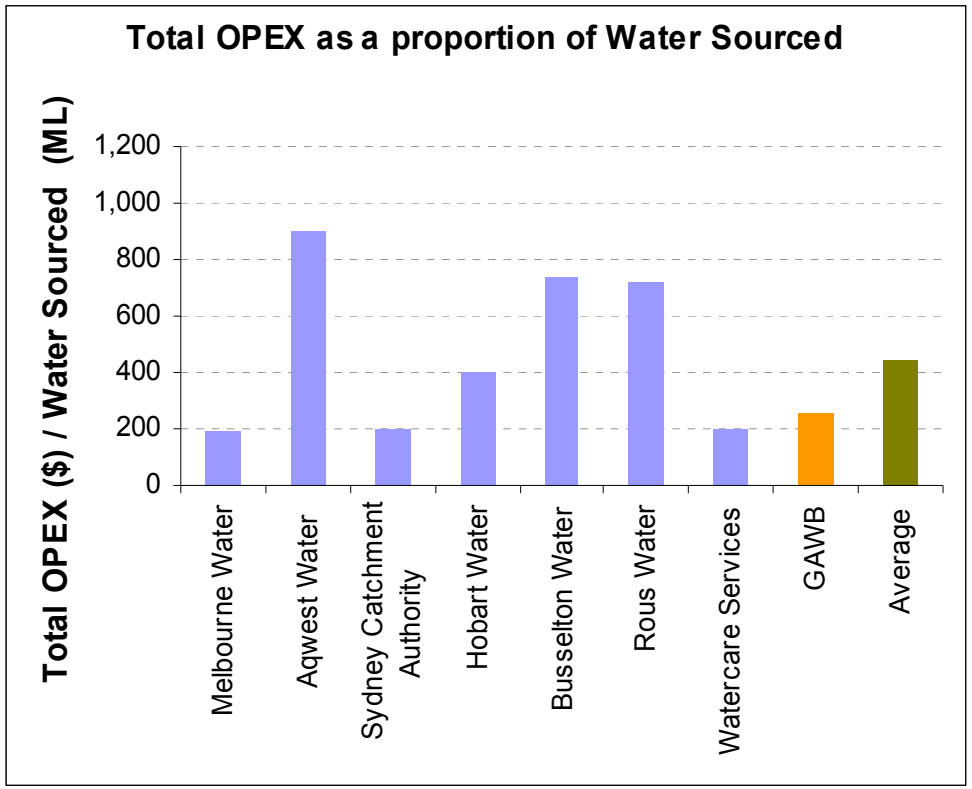
For this benchmarking study, the **Cost Ratio** for a Bulk Water Authority is a measure of their effectiveness in the allocation of expenditure (measured in cost per size terms), and is defined as the ratio of their cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as water sourced and mains length).

Organisation	Total OPEX as a proportion of Water Sourced	Total OPEX as a proportion of Mains Length	Total CAPEX as a proportion of Water Sourced	Total CAPEX as a proportion of Mains Length	Total (OPEX + CAPEX) as a proportion of Water Sourced	Total (OPEX + CAPEX) as a proportion of Mains Length	Summary Comments
Melbourne Water							• A low (below average) Cost Ratio is optimal, and indicates effective OPEX, CAPEX and Total Spend allocation relative to the size of the authority. • In most Cost Ratios, GAWB is below the average peer group ratio. • When 'water sourced' is used as the size indicator, GAWB exhibited some of the best ratios across the peer group.
Aqwest Water							
Sydney Catchment Authority		ND		ND		ND	
Hobart Water							
Busselton Water							
Rous Water							
WaterCare Services							
GAWB							

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Analysis of Results – Cost Ratios (1 of 6)

Total OPEX as a proportion of Water Sourced



NOTES:

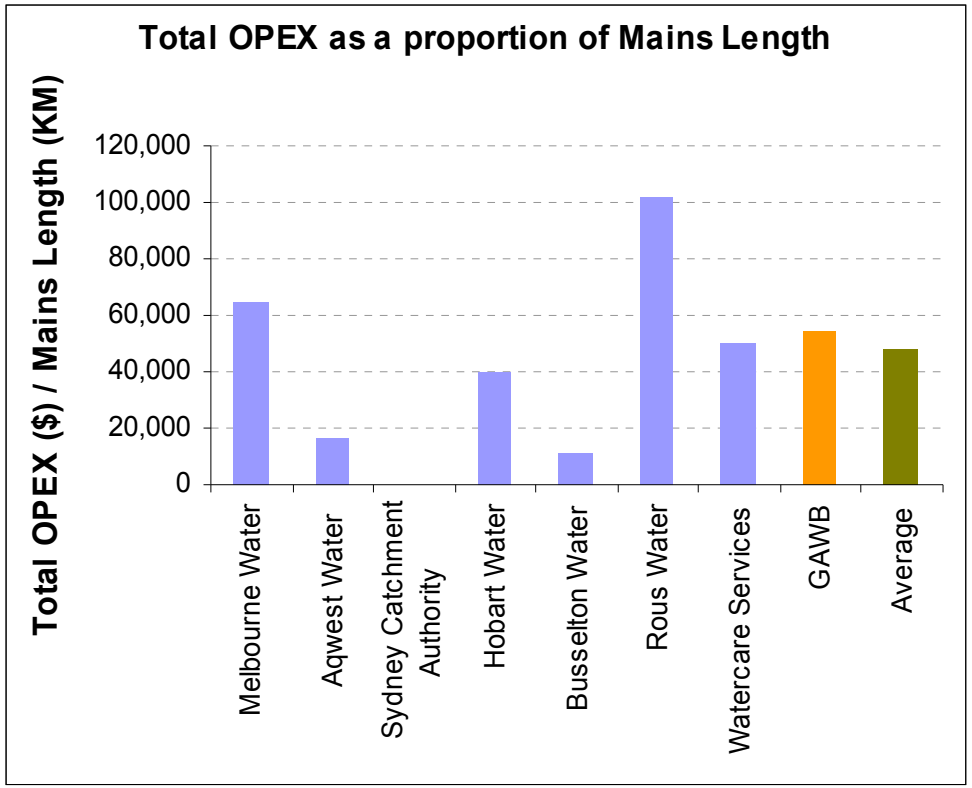
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.

GAWB Observations

- Low levels of Total OPEX support relatively high levels of water sourced (as previously noted GAWB has similar water sourced characteristics to a medium sized bulk water authority in the peer group).
- Based on 'Total OPEX as a proportion of Water Sourced', GAWB exhibit one of the lowest ratios in the peer group.
- GAWB compare favourably to bulk water authorities in the peer group with a similar water sourced figure (i.e. Hobart Water).
- GAWB also compare very favourably to all of the small bulk water authorities in the peer group (i.e. Aqwest Water, Busselton Water and Rous Water).
- *GAWB has one of the best ratios for OPEX as a proportion of water sourced across the peer group, indicating effective OPEX allocation given the magnitude of their water sourced figure.*

Analysis of Results – Cost Ratios (2 of 6)

Total OPEX as a proportion of Mains Length



NOTES:

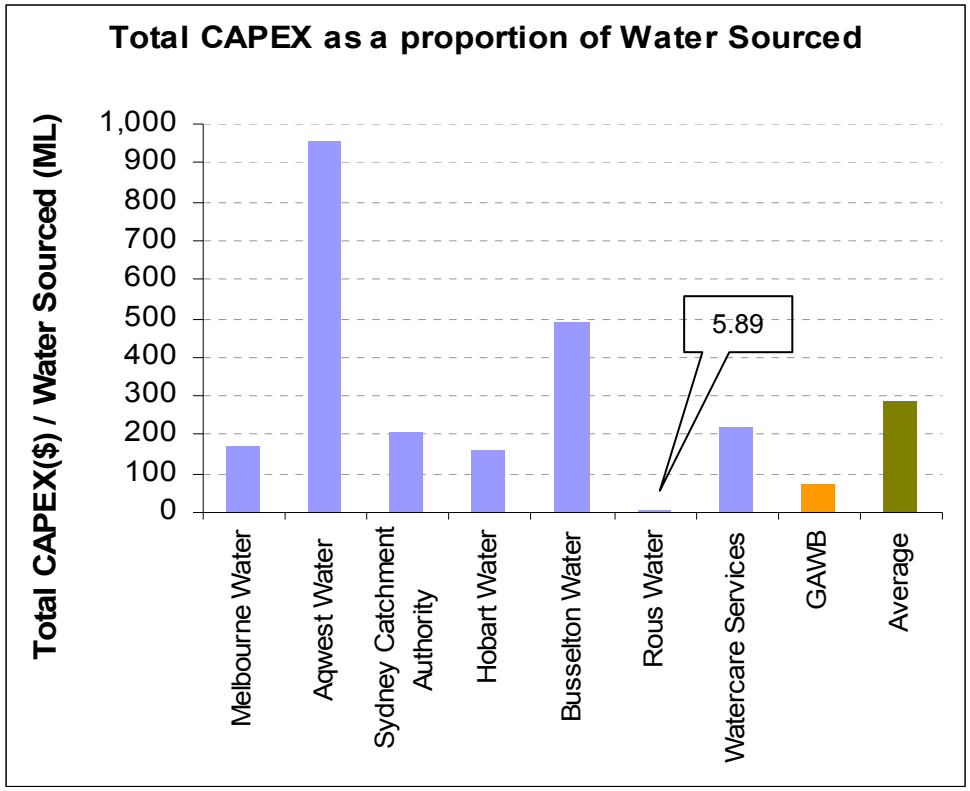
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.
- Mains length data not available for Sydney Catchment Authority.

GAWB Observations

- Moderate levels of Total OPEX support a small sized asset base.
- Based on comparisons of 'Total OPEX as a proportion of Mains Length' across the peer group, GAWB is marginally higher than the average peer group ratio.
- GAWB compare favourably to Melbourne Water which represent a large bulk water authority.
- GAWB also compare very favourably to Rous Water which represent a small bulk water authority with a similar size asset base.
- *GAWB's OPEX as a proportion of mains length ratio is above the average peer group ratio.*

Analysis of Results – Cost Ratios (3 of 6)

Total CAPEX as a proportion of Water Sourced



NOTES:

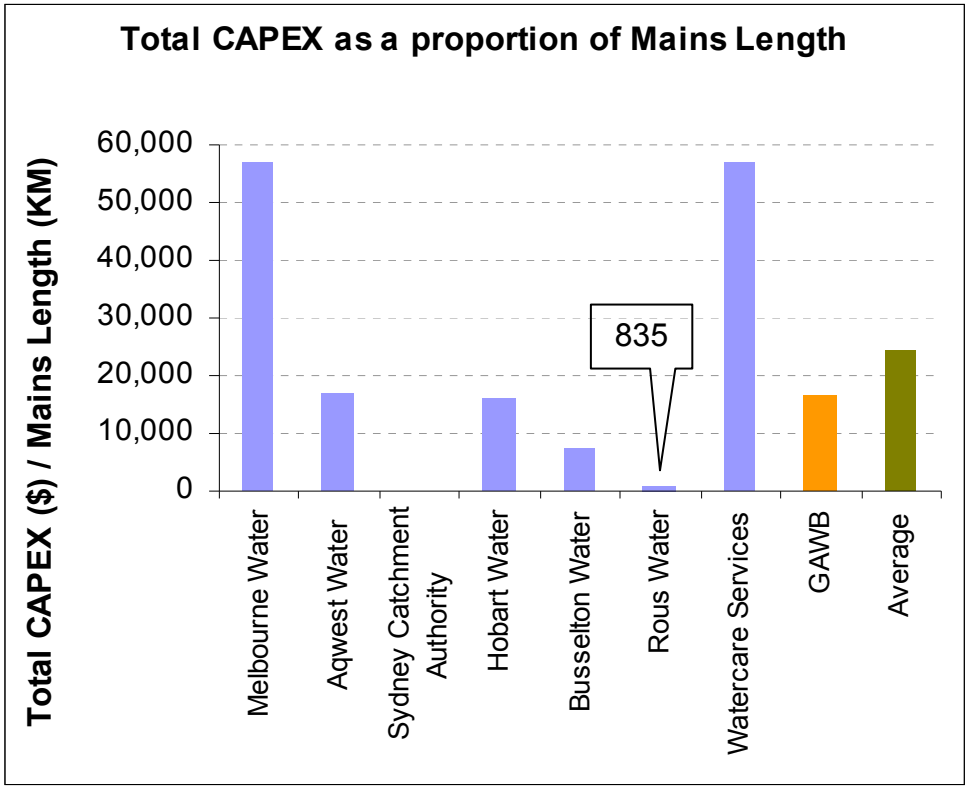
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.

GAWB Observations

- Low levels of Total CAPEX support relatively high levels of water sourced.
- Based on 'Total CAPEX as a proportion of Water Sourced', GAWB exhibit one of the lowest ratios in the peer group.
- GAWB compare very favourably to bulk water authorities in the peer group with a similar water sourced figure (i.e. Hobart Water).
- GAWB also compare very favourably to most small bulk water authorities in the peer group (particularly Aqwest Water and Busselton Water).
- *GAWB has one of the best ratios for CAPEX as a proportion of water sourced across the peer group, indicating effective CAPEX allocation given the magnitude of their water sourced figure.*

Analysis of Results – Cost Ratios (4 of 6)

Total CAPEX as a proportion of Mains Length



NOTES:

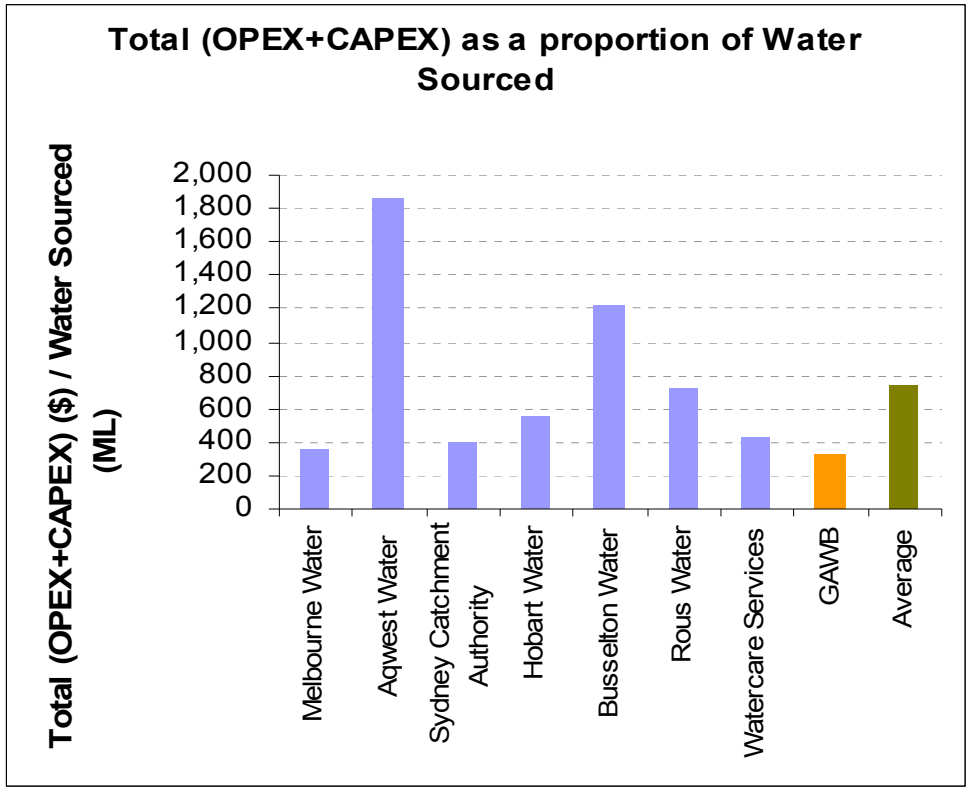
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Mains length data not available for Sydney Catchment Authority.

GAWB Observations

- Low levels of Total CAPEX support a small sized asset base.
- Based on comparisons of 'Total CAPEX as a proportion of Mains Length' across the peer group, GAWB exhibit a less than average ratio.
- GAWB compare very favourably to large bulk water authorities in the peer group (i.e. Melbourne Water and WaterCare Services) which would be expected to have economies of scale advantages for CAPEX in comparison to GAWB.
- GAWB also exhibit reasonably comparable results to bulk water authorities in the peer group with similar mains length (i.e. Aqwest Water and Busselton Water).
- *GAWB is below the average peer group ratio for CAPEX as a proportion of mains length, indicating effective CAPEX allocation relative to the size of their asset base.*

Analysis of Results – Cost Ratios (5 of 6)

Total (OPEX + CAPEX) as a proportion of Water Sourced



NOTES:

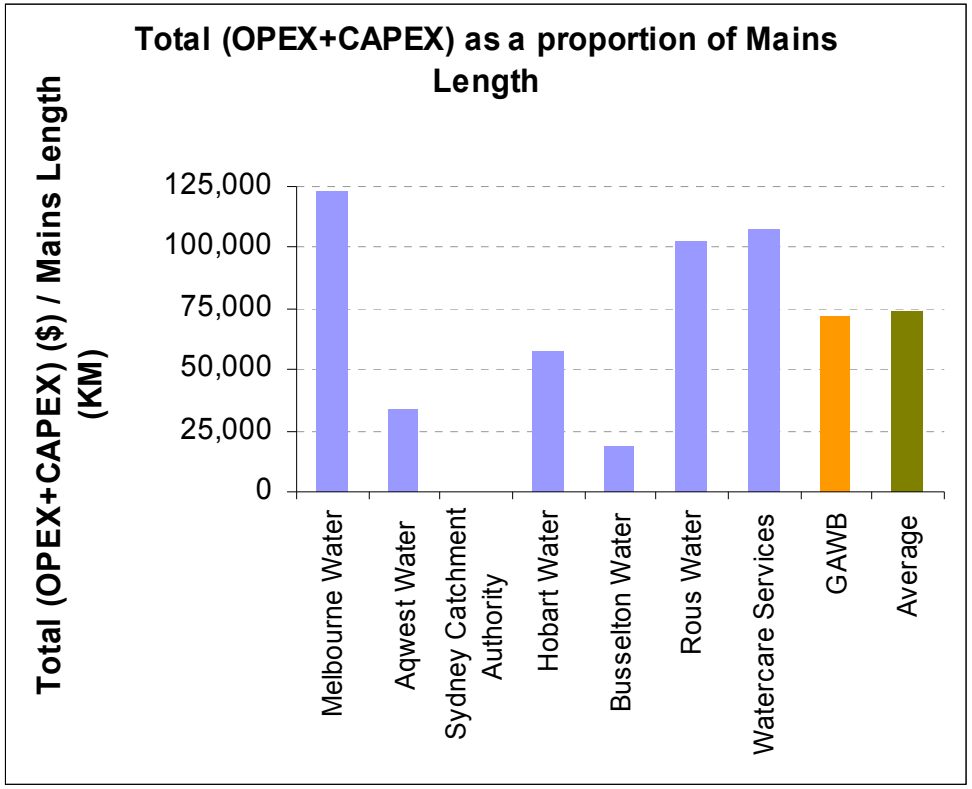
- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.

GAWB Observations

- Previous water sourced charting indicates that GAWB allocates OPEX and CAPEX very effectively in comparison to the peer group, given the magnitude of their water sourced figure for a small bulk water authority (i.e. 46GL per annum).
- When 'Total (OPEX + CAPEX) as a proportion of Water Sourced' is charted, GAWB exhibits the lowest ratio of all in the peer group.
- GAWB compare favourably to bulk water authorities in the peer group with a similar water sourced figure (i.e. Hobart Water).
- GAWB also compare very favourably to all of the small bulk water authorities in the peer group (i.e. Aqwest Water, Busselton Water and Rous Water).
- *GAWB has the best total spend as a proportion of water sourced ratio for the peer group, indicating very effective spend allocation given the magnitude of their water sourced figure.*

Analysis of Results – Cost Ratios (6 of 6)

Total (OPEX + CAPEX) as a proportion of Mains Length



NOTES:

- Capital spend has many drivers, so high or low CAPEX may not be conclusive.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Melbourne Water's OPEX data was obtained from the Melbourne Water 2009 Water Plan. The OPEX figure is for water only and includes corporate overheads. Corporate overheads specific to water was estimated from the ratio of total spend and total corporate overheads. Further detail on the breakdown of the Melbourne Water OPEX figure is not available.
- Mains length data not available for Sydney Catchment Authority.

GAWB Observations

- Previous mains length charting indicates reasonable OPEX and CAPEX allocation in comparison to the peer group, given a small asset base (i.e. 211 KM).
- When 'Total (OPEX + CAPEX) as a proportion of Mains Length' is charted, GAWB is close to the average peer group ratio.
- GAWB compare very favourably to large bulk water authorities in the peer group (i.e. Melbourne Water and WaterCare Services) which would be expected to have economies of scale advantages for total spend in comparison to GAWB.
- GAWB also compare very favourably to Rous Water, which represent a small bulk water authority.
- *GAWB's total spend as a proportion of mains length ratio is close to the average peer group ratio.*

Analysis of Results - Summary of Revenue Ratios

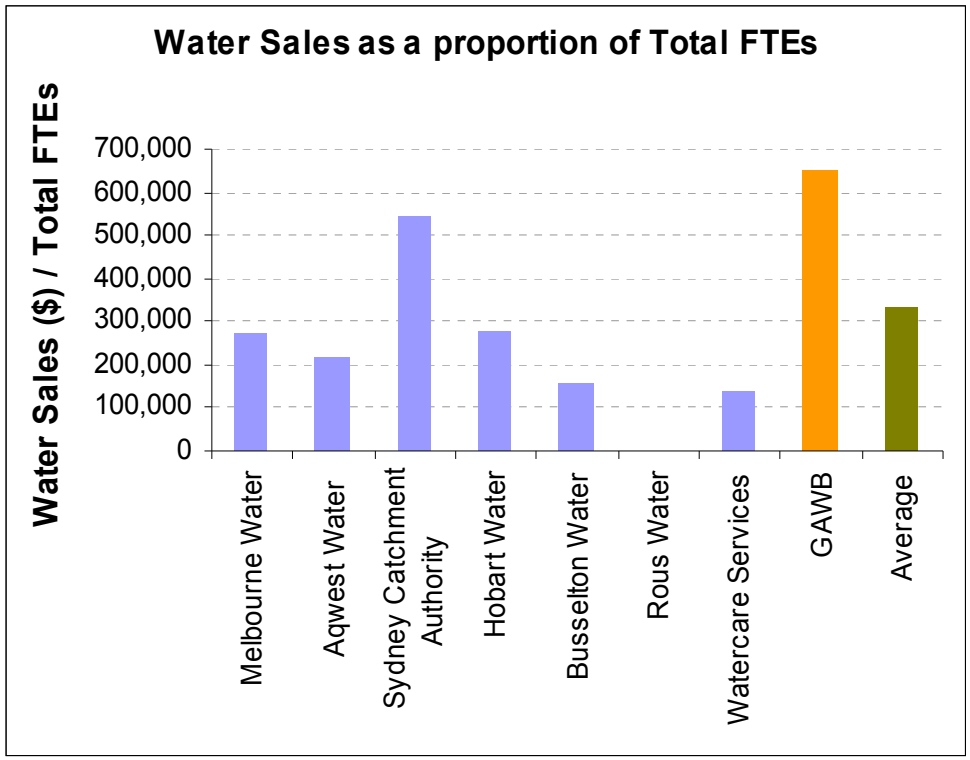
For this benchmarking study, the **Revenue Ratio** for a Bulk Water Authority is a measure of asset utilisation (measured in revenue per size terms), and is defined as the ratio of their sales (i.e. based on water sales) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as Total FTEs, water sourced and mains length).

Organisation	Water Sales as a proportion of Total FTEs	Water Sales as a proportion of Water Sourced	Water Sales as a proportion of Mains Length	Summary Comments
Melbourne Water	🔴	🔴	🟢	• A high (above average) Revenue Ratio is optimal, and indicates strong asset utilisation relative to the size of the authority. • For Revenue Ratios involving Total FTEs and Mains Length, GAWB is above the average peer group ratio. • For 'Water Sales as a proportion of Total FTEs', GAWB has the best ratio across the peer group. • For 'Water Sales as a proportion of Mains Length', GAWB has one of the best ratios across the peer group. • For 'Water Sales as proportion of Water Sourced', GAWB is marginally below the average peer group ratio.
Aqwest Water	🔴	🟢	🔴	
Sydney Catchment Authority	🟢	🔴	**ND**	
Hobart Water	🔴	🟡	🔴	
Busselton Water	🔴	🟢	🔴	
Rous Water	**ND**	🟢	🟢	
WaterCare Services	🔴	🔴	🟢	
GAWB	🟢	🔴	🟢	

🟢 Above The Average Peer Group Ratio 🟡 Close To Average Peer Group Ratio 🔴 Below The Average Peer Group Ratio

Analysis of Results – Revenue Ratios (1 of 3)

Water Sales as a proportion of Total FTEs



NOTES:

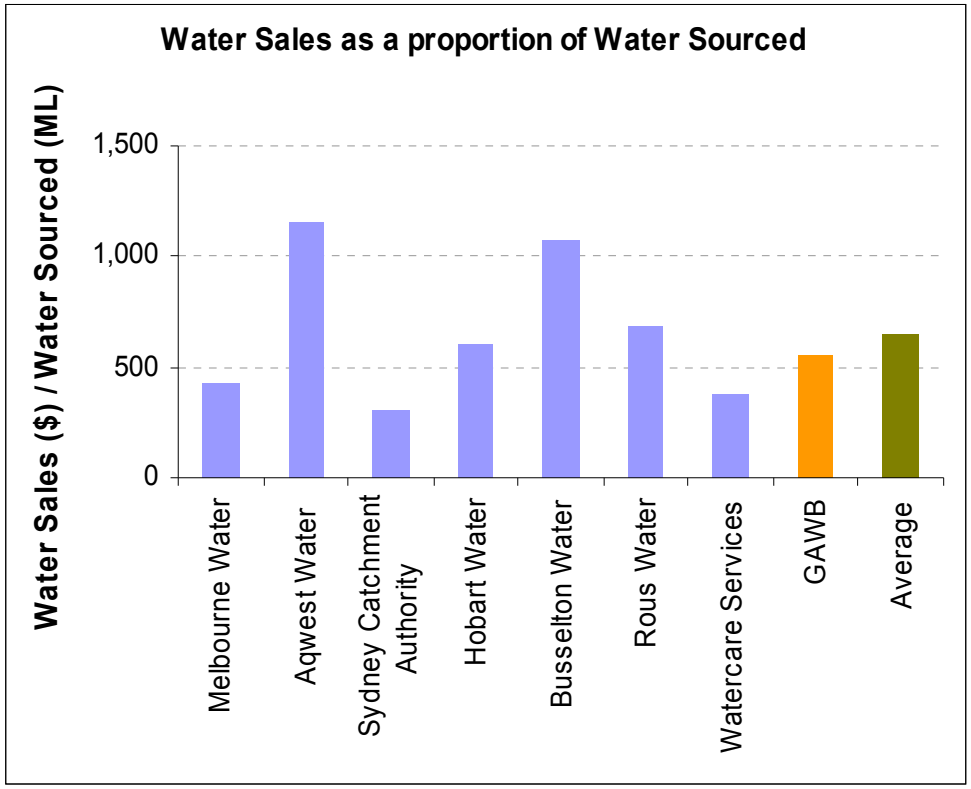
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- FTE or number of employees data was not available for Rous Water.
- The total number of employees was used for WaterCare Services and Hobart Water, since the total FTEs figure was not available.
- Melbourne Water FTEs and number of employees statistics specific to the water function could not be extracted. Melbourne Water Total FTEs have been included in the chart to provide an indication of size, however, they have been excluded from the calculation of the average for the peer group.
- The total FTEs figure for GAWB excludes staff members associated with hatchery and recreation activities.

GAWB Observations

- GAWB exhibit the highest water sales to total FTEs ratio in the peer group.
- This appears to indicate a relatively small workforce (third lowest in the peer group) is able to generate 'Water Sales as a proportion of Total FTEs' results that are far better than other large, medium and small bulk water authorities in the peer group.
- GAWB compares very favourably to small bulk water authorities in the peer group with similar FTE figures (i.e. Aqwest Water and Busselton Water).
- *GAWB has the best water sales as a proportion of total FTEs ratio of the peer group, indicating very strong asset utilisation based on a relatively small workforce.*

Analysis of Results – Revenue Ratios (2 of 3)

Water Sales as a proportion of Water Sourced



NOTES:

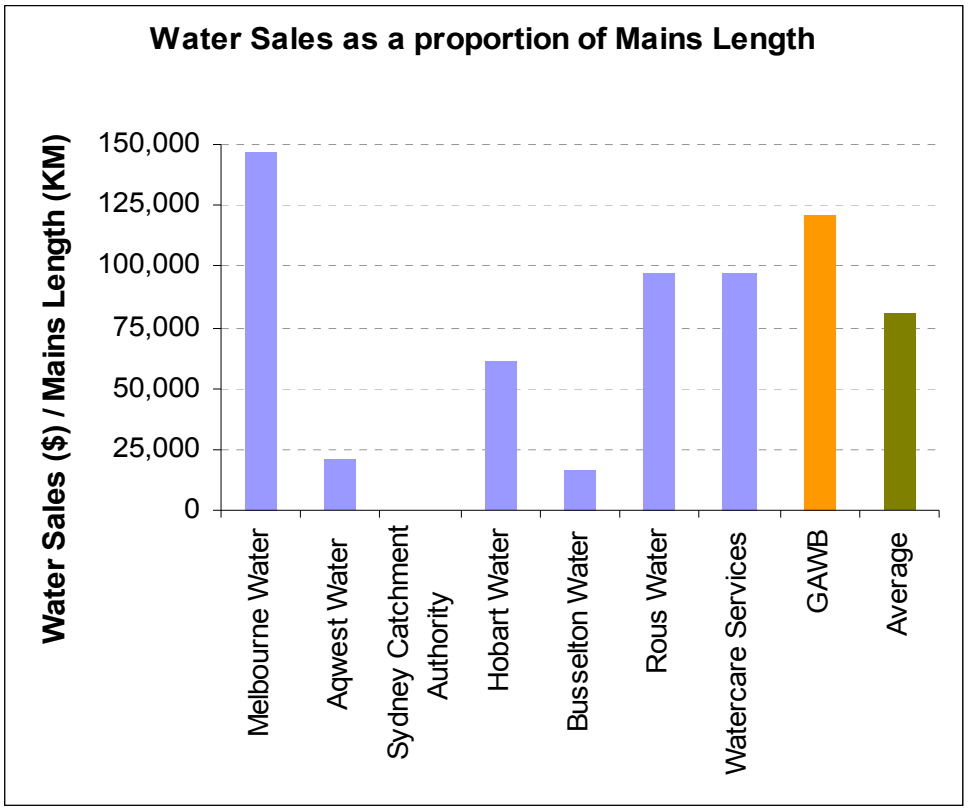
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.

GAWB Observations

- For GAWB, a high water sales figure for a small bulk water authority correlates with a high water sourced figure (as previously noted GAWB has similar water sourced and water sales characteristics to Hobart Water).
- Accordingly, 'Water Sales as a proportion of Water Sourced' results indicate that GAWB and Hobart Water are just below the average ratio figure for the peer group.
- *GAWB's water sales and water sourced figures approximate a medium sized bulk water authority, and indicate water sales as a proportion of water sourced ratio is marginally below the average peer group ratio.*

Analysis of Results – Revenue Ratios (3 of 3)

Water Sales as a proportion of Mains Length



NOTES:

- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.
- Mains length data not available for Sydney Catchment Authority.

GAWB Observations

- GAWB has one of the highest water sales to mains length ratios in the peer group.
- This appears to indicate a relatively small mains length (second lowest in the peer group) is able to generate 'Water Sales as a proportion of Mains Length' results that are better than many in the peer group.
- GAWB compares very favourably to small bulk water authorities in the peer group with similar mains length figures (i.e. Aqwest Water and Busselton Water).
- *GAWB has one of the best water sales as a proportion of mains length ratios of the peer group, indicating strong asset utilisation from a relatively small asset base.*

Contents

Conclusions (1 of 9)

1. General

Marchment Hill Consulting (MHC) has conducted an independent benchmarking study covering Operational Expenditure, Capital Expenditure, number of Full Time Equivalents (FTEs) and Revenue to support Gladstone Area Water Board's (GAWB's) regulatory submission. The study has been based on comparing GAWB to the following Australian and New Zealand Bulk Water Authority peer group :

- Melbourne Water (Victoria);
- Aqwest Water (Western Australia);
- Sydney Catchment Authority (New South Wales);
- Hobart Water (Tasmania);
- Busselton Water (Western Australia);
- Rous Water (New South Wales); and
- WaterCare Services (Auckland, New Zealand).

The following public data sources have been used to support this benchmarking study:

- Annual Reports;
- Water Plans; and
- National Water Commission Performance Report/s.

A high level comparison between GAWB and the peer organisations (i.e. at the 'total' level' for operational expenditure, capital expenditure, full time equivalent staff and revenue) has been conducted based on Efficiency, Productivity, Cost and Revenue Ratios. The results of the analysis have been tabulated in the following pages in 'Summary Results' and 'Individual Charting Results' form.

Conclusions (2 of 9)

2. Peer Group Scaling (Summary Results)

Peer Group Scaling of FTEs, Water Sourced and Mains Length do not provide any indication of performance. It is merely an indication of the physical size of the Bulk Water Authority.

Organisation	Total FTEs	Water Sourced	Mains Length
GAWB	↓	↓	↓

- GAWB is below the average number of FTEs of the peer group, and is therefore categorised as a small bulk water authority within this peer group.
- GAWB is below the average amount of water sourced by the peer group, however, GAWB has a water sourced figure similar to a medium sized bulk water authority in the peer group.
- GAWB is below the average length of mains of the peer group. GAWB has a mains length figure which is comparable to other small bulk water authorities in the peer group.

↑ Above the Average Size of Peer Group ≈ Close To Average Size of Peer Group ↓ Below the Average Size of Peer Group

Conclusions (3 of 9)

3. Efficiency Ratio (Summary Results)

Efficiency Ratio analysis has shown that GAWB is below the average peer group in relation to spend efficiency, which is represented by a very low cost base relative to the size of their water authority. It should be noted that ratios involving RAB are based on comparison to two large bulk water authorities and are not conclusive.

Organisation	Total OPEX as a proportion of RAB	Total CAPEX as a proportion of RAB	Total (OPEX + CAPEX) as a proportion of RAB	Total OPEX as a proportion of Water Sales	Total CAPEX as a proportion of Water Sales	Total (OPEX + CAPEX) as a proportion of Water Sales	Employee Benefits as a proportion of Total OPEX
GAWB							

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

4. Productivity Ratio (Summary Results)

Productivity Ratio analysis has shown that GAWB is below the average peer group ratio and has a very effective workforce relative to the size of their water authority. It should be noted that ratios involving RAB are based on comparison to two large bulk water authorities and are not conclusive.

Organisation	Total FTEs as a proportion of RAB	Total FTEs as a proportion of Water Sourced	Total FTEs as a proportion of Mains Length
GAWB			

 Below The Average Peer Group Ratio  Close To Average Peer Group Ratio  Above The Average Peer Group Ratio

Conclusions (4 of 9)

5. Cost Ratio (Summary Results)

Cost Ratio analysis has shown that GAWB allocates OPEX, CAPEX and Total Spend reasonably effectively relative to the size of their water authority.

Organisation	Total OPEX as a proportion of Water Sourced	Total OPEX as a proportion of Mains Length	Total CAPEX as a proportion of Water Sourced	Total CAPEX as a proportion of Mains Length	Total (OPEX + CAPEX) as a proportion of Water Sourced	Total (OPEX + CAPEX) as a proportion of Mains Length
GAWB						

6. Revenue Ratio (Summary Results)

Revenue Ratio analysis has shown that GAWB has reasonably strong asset utilisation relative to the size of their water authority.

Organisation	Water Sales as a proportion of Total FTEs	Water Sales as a proportion of Water Sourced	Water Sales as a proportion of Mains Length
GAWB			

Conclusions (5 of 9)

7. Peer Group Scaling (Individual Charting Results)

The **Peer Group Scaling** for a Bulk Water Authority is a measure of their physical size. It is not an indication of their performance.

Ratio	Metric	GAWB Observation
Peer Group Scaling	Total FTEs	*GAWB is below the average number of FTEs of the peer group, and is therefore categorised as a small bulk water authority within this peer group.*
	Water Sourced	*GAWB has a water sourced figure similar to a medium sized bulk water authority in the peer group.*
	Mains Length	*GAWB has a mains length figure which is comparable to other small bulk water authorities in the peer group.*

Conclusions (6 of 9)

8. Efficiency Ratio (Individual Charting Results)

The **Efficiency Ratio** for a Bulk Water Authority is a measure of spend efficiency (measured in percentage terms), and is defined as the ratio of cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on financial indicators such as RAB, Water Sales and Total OPEX).

Ratio	Metric	GAWB Observation
Efficiency	Total OPEX as a proportion of RAB	*Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's OPEX as a proportion of RAB ratio is below the average peer group ratio.*
	Total CAPEX as a proportion of RAB	*Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's CAPEX as a proportion of RAB ratio is below the average peer group ratio.*
	Total (OPEX + CAPEX) as a proportion of RAB	*Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's total spend as a proportion of RAB ratio is below the average peer group ratio.*
	Total OPEX as a proportion of Water Sales	*GAWB has one of the best OPEX as a proportion of water sales ratios for the peer group, indicating a very low operating cost base given the magnitude of their water sales.*
	Total CAPEX as a proportion of Water Sales	*GAWB has one of the best ratios for CAPEX as a proportion of water sales across the peer group, indicating very low capital cost given the magnitude of their water sales figure.*
	Total (OPEX + CAPEX) as a proportion of Water Sales	*GAWB has the best total spend as a proportion of water sales ratio for the peer group, indicating a very low cost base supports a relatively high water sales figure.*
	Employee Benefits as a proportion of Total OPEX	*GAWB's employee benefits as a proportion of OPEX ratio is close to average peer group ratio, indicating their employees are remunerated according to standard market rates.*

Conclusions (7 of 9)

9. Productivity Ratio (Individual Charting Results)

The **Productivity Ratio** for a Bulk Water Authority is a measure of their workforce effectiveness (measured in FTE per size terms), and is defined as the ratio of their numbers of staff (i.e. based on Total FTEs) relative to their size (i.e. for this ratio 'size' is based on RAB, and typical physical indicators such as water sourced and mains length).

Ratio	Metric	GAWB Observation
Productivity	Total FTEs as a proportion of RAB	*Benchmarking against two large bulk water authorities is not conclusive, but has shown that GAWB's number of FTEs as a proportion of RAB ratio is below the average peer group ratio.*
	Total FTEs as a proportion of Water Sourced	*GAWB has one of the best number of FTEs as a proportion of water sourced ratios for the entire peer group, indicating a very effective workforce relative to water sourced.*
	Total FTEs as a proportion of Mains Length	*GAWB's number of FTEs as a proportion of mains length ratio is below the average peer group ratio, indicating an effective workforce relative to the size of their asset base.*

Conclusions (8 of 9)

10. Cost Ratio (Individual Charting Results)

The **Cost Ratio** for a Bulk Water Authority is a measure of their effectiveness in the allocation of expenditure, and is defined as the ratio of their cost (i.e. based on operating expenditure, capital expenditure and total expenditure) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as water sourced and mains length).

Ratio	Metric	GAWB Observation
Cost	Total OPEX as a proportion of Water Sourced	*GAWB has one of the best ratios for OPEX as a proportion of water sourced across the peer group, indicating effective OPEX allocation given the magnitude of their water sourced figure.*
	Total OPEX as a proportion of Mains Length	*GAWB's OPEX as a proportion of mains length ratio is above the average peer group ratio.*
	Total CAPEX as a proportion of Water Sourced	*GAWB has one of the best ratios for CAPEX as a proportion of water sourced across the peer group, indicating effective CAPEX allocation given the magnitude of their water sourced figure.*
	Total CAPEX as a proportion of Mains Length	*GAWB is below the average peer group ratio for CAPEX as a proportion of mains length, indicating effective CAPEX allocation relative to the size of their asset base.*
	Total (OPEX + CAPEX) as a proportion of Water Sourced	*GAWB has the best total spend as a proportion of water sourced ratio for the peer group, indicating very effective spend allocation given the magnitude of their water sourced figure.*
	Total (OPEX + CAPEX) as a proportion of Mains Length	*GAWB's total spend as a proportion of mains length ratio is close to the average peer group ratio.*

Conclusions (9 of 9)

11. Revenue Ratio (Individual Charting Results)

The **Revenue Ratio** for a Bulk Water Authority is a measure of asset utilisation (measured in revenue per size terms), and is defined as the ratio of their sales (i.e. based on water sales) relative to their size (i.e. for this ratio 'size' is based on physical indicators such as Total FTEs, water sourced and mains length).

Ratio	Metric	GAWB Observation
Revenue	Water Sales as a proportion of Total FTEs	*GAWB has the best water sales as a proportion of total FTEs ratio of the peer group, indicating very strong asset utilisation based on a relatively small workforce.*
	Water Sales as a proportion of Water Sourced	*GAWB's water sales and water sourced figures approximate a medium sized bulk water authority, and indicate water sales as a proportion of water sourced ratio is marginally below the average peer group ratio.*
	Water Sales as a proportion of Mains Length	*GAWB has one of the best water sales as a proportion of mains length ratios of the peer group, indicating strong asset utilisation from a relatively small asset base.*

Contents

Overall Methodology

The methodology undertaken for this benchmarking study is depicted below:

- Phase 1 focused on identifying the scope and approach for the benchmarking study; and
- Phase 2 focused on data mapping, and the collection and analysis of data.

PHASE 1: ESTABLISHMENT

1.1 Preparation

- Project management, coordination and communication
- Establish project steering committee and project governance
- Prepare for scope and methodology workshop
- Develop high-level understanding of publicly available benchmarking data as an input / constraint into the benchmarking process

1.2 Scope & Methodology Workshop

- Examine and establish target peer organisations
- Determine desired hypothesis and identify metrics to prove or disprove these hypothesis
- Conduct high level data mapping and generate a list of data requirements to extract metrics, and then conduct benchmarking
- Establish detailed timeliness
- Develop draft report template/contents

PHASE 2: DELIVERY

2.1 Prepare Data Collection Materials

- Develop data pack / data survey and supporting instruction materials

2.2 Collect Data

- Collect both FTE data and accompanying organisation structures
- Collect scale, operating expenditure, capital expenditure, FTE and system characteristic data

2.3 Analysis

- Collate and consolidate data
- Produce analysis worksheets and charts to compare performance on prescribed metrics
- Conduct detailed data mapping to produce benchmark metrics
- Conduct initial data validation
- Identify outliers and erroneous data – seek new data as appropriate
- Examine trends and provide commentary

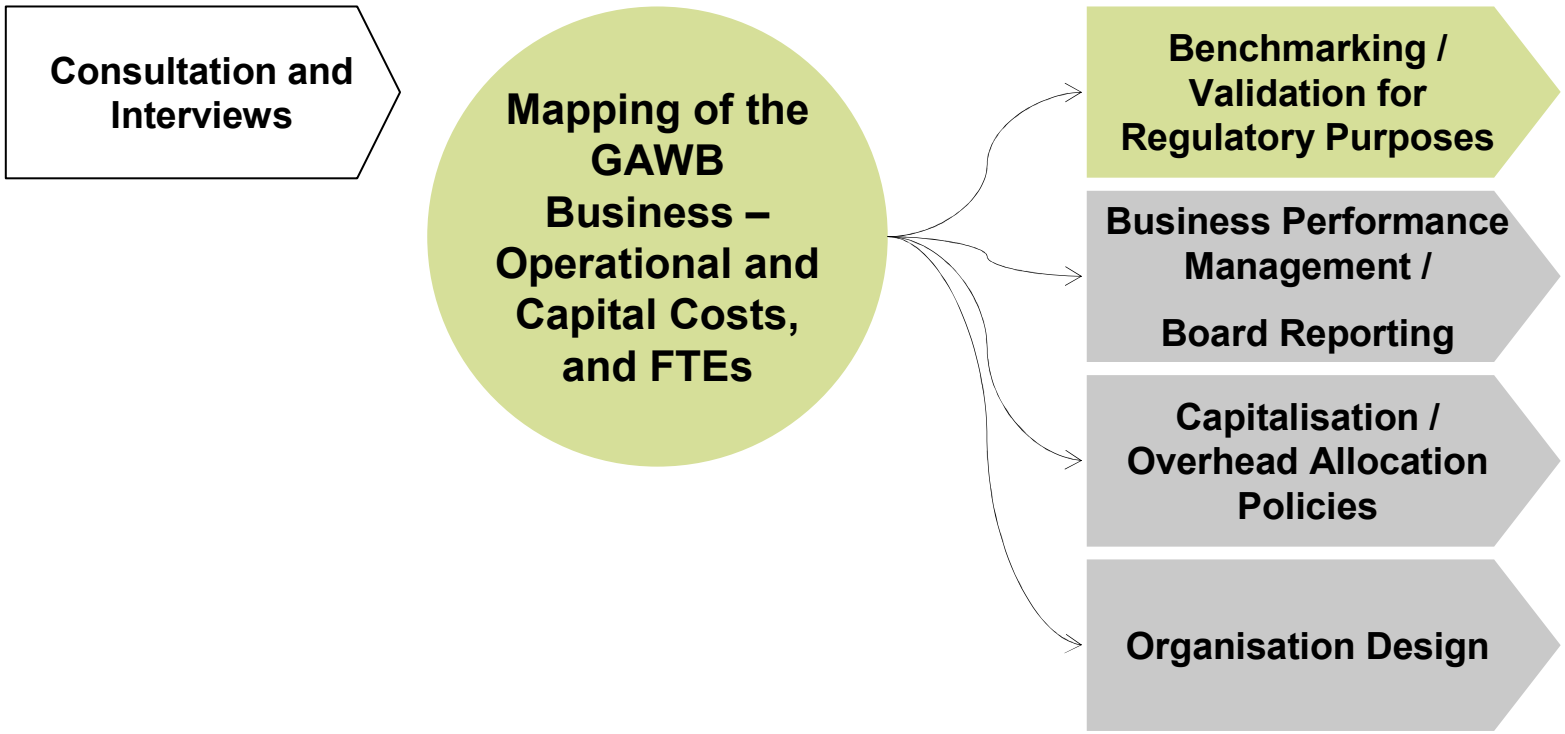
2.5 GAWB Report

- Prepare a bespoke report for GAWB containing direct comparison analysis with peer organisations and commentary as defined in Scope and Methodology Workshop

Data Mapping for GAWB (1 of 3)

Data mapping for GAWB initially involved:

- Agreement on an appropriate decomposition of the GAWB Business that supported the four major identified needs (refer below).
- Agreement on the key elements of a Benchmarking / Validation exercise, namely functions suitable for benchmarking, appropriate peers, performance metrics and data requirements.



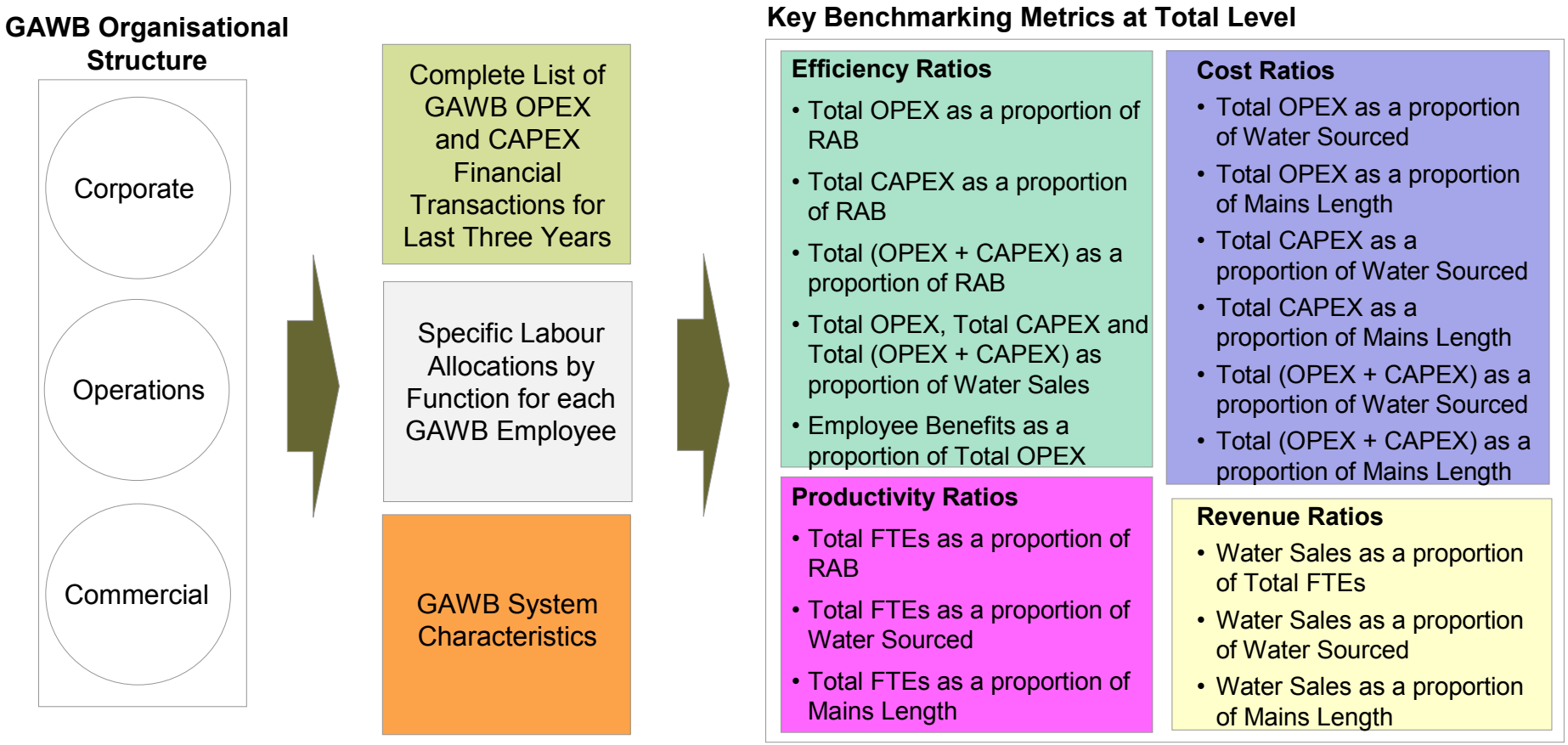
Data Mapping for GAWB (2 of 3)

A review of the organisational functions conducted by Melbourne Water, Sydney Catchment Authority, Hobart Water and WaterCare Services lead to the establishment of five (5) generic functional groups: Strategic Planning, Support Services, Asset Management, Operations and Maintenance Management, and Catchment Management.

Commercial Services		Operations		Catchment Management
Strategic Planning	**Support Services**	**Asset Management**	**Operations and Maintenance Management**	**Catchment * Management**
• Executive leadership team including CEO and executive management team; and • Strategic Planning.	• Finance; • Compliance; • Risk Management; • Business Planning; • Human Resources; • Legal; • IT; and • Administration.	• Asset Strategy Development; • Standards Development and Maintenance; • Asset Management; • Maintenance of Asset Databases and Asset Register; • Engineering / Option Development; and • Design / Drafting and Planning.	This function includes the following activities conducted for all asset types: • Operations (including Operators); • Plant Procurement and Logistics; • Water Testing and Treatment; • Maintenance; • Auditing of Work Practices / Safety / Environmental Practices; • Works Scheduling (<12 months); and • Project Management.	• Land Management; • Recreation Management; • Hatchery; and • Environment Management. * *Not Included in Analysis*

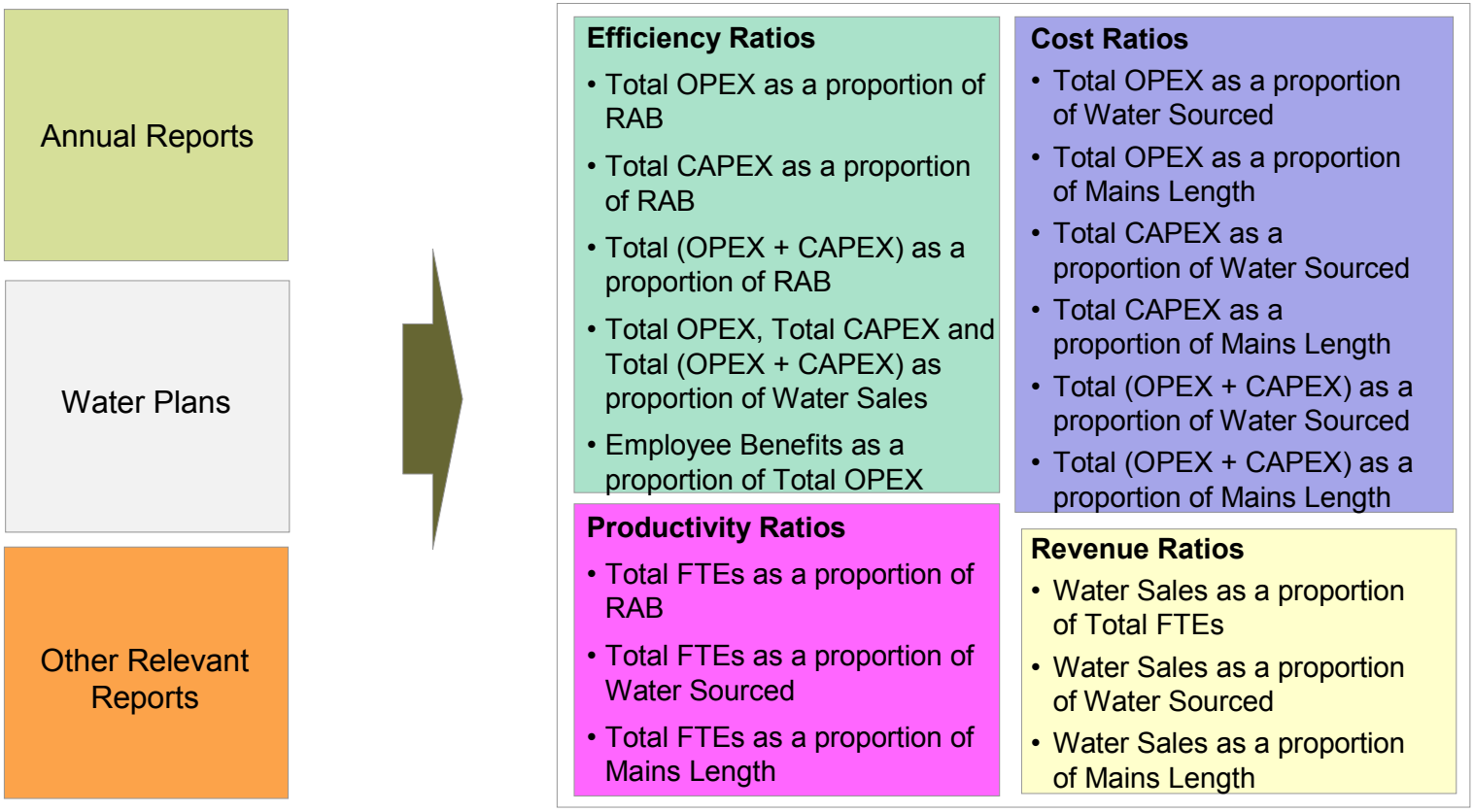
Data Mapping for GAWB (3 of 3)

Using GAWB financial transactions, specific labour allocations and system characteristics data allowed the Corporate, Operations and Commercial functions to be mapped to GAWB Efficiency, Productivity, Cost and Revenue Ratios at the TOTAL level *(used as the basis of this study)*.



Data Mapping for Peer Group

Using Annual Reports, Water Plans and Other Relevant Reports as the basis of the peer group data allowed mapping to Peer Group Efficiency, Productivity, Cost and Revenue Ratios at the TOTAL level *(used as the basis of this study)*



Contents

Data Sources

Annual Reports

- Aqwest – Bunbury Water Board Annual Report 2006-2007
- Aqwest – Bunbury Water Board Annual Report 2007-2008
- Busselton Water Annual Report 2006/2007
- Busselton Water Annual Report 2007/2008
- Hobart Water Annual Report 2006-2007
- Hobart Water Annual Report 2007-2008
- Rous County Council Annual Report 2007/2008
- Sydney Catchment Authority Annual Report 2006/2007
- Sydney Catchment Authority Annual Report 2007/2008
- WaterCare Services Limited Annual Report 2007
- WaterCare Services Limited Annual Report 2008

Data Sources

Water Plans

- Melbourne Water 2009 Water Plan

Other Relevant Reports

- National Performance Report Urban Utilities 2007-2008, National Water Commission
- Melbourne Water's Sustainability Report 2007/2008
- 2006-2007 Melbourne Water Sustainability Report
- Rous Monthly Report 31st May 2009

Contents

Peer Group - Type of Water Authority

	Water	Waste Water	Part of Council
Melbourne Water	✓	✓	
Aqwest Water	✓		
Sydney Catchment Authority	✓		
Hobart Water	✓		
Busselton Water	✓		
Rous Water	✓		✓
WaterCare Services	✓	✓	
Gladstone Area Water Board (GAWB)	✓		

Notes:

- Costs relating to wastewater were extracted from WaterCare Services.
- Rous County Council's income statement for their water supply business activity was used to extract their revenue and cost data.

Peer Group – Summary of Key Data

Organisation	Water Sales Revenue ($)	Total OPEX ($)	Total CAPEX ($)	Total Water and Wastewater OPEX * ($)	Total Water and Wastewater CAPEX * ($)	FTEs	Mains Length (KM)	Water Sourced (ML)
Melbourne Water	181,364,517	186,846,232	73,019,139	186,846,232	359,414,634	663	1,235	426,372
Aqwest Water	7,256,734	5,660,221	6,017,959	NOT APPLICABLE	NOT APPLICABLE	34	355	6,286
Sydney Catchment Authority	155,717,743	99,856,206	103,834,137	NOT APPLICABLE	NOT APPLICABLE	288	NO DATA	504,367
Hobart Water	24,985,127	16,425,581	6,707,227	NOT APPLICABLE	NOT APPLICABLE	90	421	41,409
Busselton Water	4,316,752	2,952,454	1,981,546	NOT APPLICABLE	NOT APPLICABLE	27	270	4,031
Rous Water	7,512,403	7,807,692	64,342	NOT APPLICABLE	NOT APPLICABLE	NO DATA	77	10,926
WaterCare Services	52,586,833	27,185,773	30,814,538	NOT APPLICABLE	NOT APPLICABLE	373	540	137,683
GAWB	**25,634,146**	**11,583,490**	**3,451,298**	NOT APPLICABLE	NOT APPLICABLE	**39**	**211**	**45,867**

Notes:

- 'Total Water and Wastewater OPEX' figures for Melbourne Water have been included in Efficiency Ratios incorporating RAB.
- 'Total Water and Wastewater CAPEX' figures for Melbourne Water have been included in Efficiency Ratios incorporating RAB.

Melbourne Water

Victoria, AUSTRALIA

Melbourne Water is owned by the Victorian Government and is responsible for managing Melbourne's water supply catchments, removing and treating most of Melbourne's sewage, and major drainage systems throughout the Port Phillip and Westernport region. Melbourne Water also manages rivers and creeks in this area.

Melbourne Water supplies water annually to retail water companies, including City West Water, South East Water and Yarra Valley Water. To a lesser extent, Melbourne Water also supplies water to local councils, the land development industry, Western Water, Gippsland Water and Southern Rural Water.

Melbourne Water's prices for bulk water and sewerage services, and pricing principles for recycled water, are set by the Essential Services Commission. The prices are guided by the principles set out in Melbourne Water's Statement of Obligations.

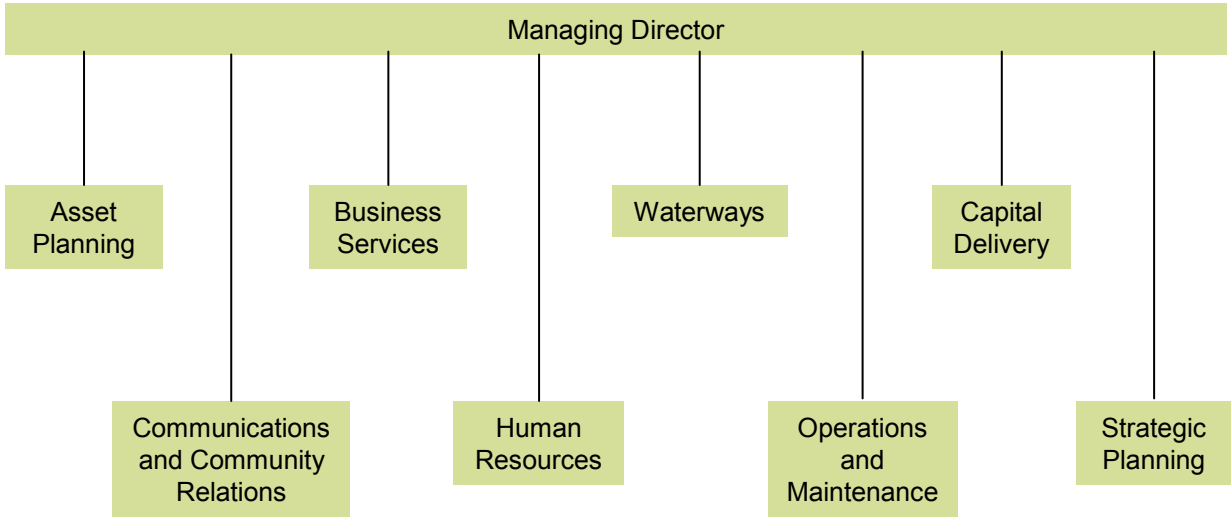
Melbourne Water is governed by an independent Board of Directors that reports to the Minister for Water.

Population Served: 3,686,333
Total Water Sourced (ML): 426,372
No. of FTEs: 663

No. of Treatment Plants: 5
Length of Mains (KM): 1235
Total Non-Current Asset Value ($): 4.1B

Total OPEX ($): 63.3M
Total CAPEX ($): 73.0M
Total Water & Wastewater OPEX ($): 186.8 M
Total Water & Wastewater CAPEX ($): 359.4M
Water Sales Revenue ($): 181.4M

Regulator: Essential Services Commission



NOTE:
- *2009 Organisation structure, www.melbournewater.com.au*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Aqwest Water

Western Australia, AUSTRALIA

AQWEST is the trading name of the Bunbury Water Board, which is a Western Australian State Government Statutory Authority providing treated drinking water services to the City of Bunbury.

AQWEST is an independent water authority responsible for the supply of drinking water to people living and working in the City of Bunbury (except Pelican Point). Bunbury Water Board is a Western Australian State Government Statutory Authority.

Population Served: 32,000

Total Water Sourced (ML): 6,286

No. of FTEs: 34

No. of Treatment Plants: 6

Length of Mains (KM): 355

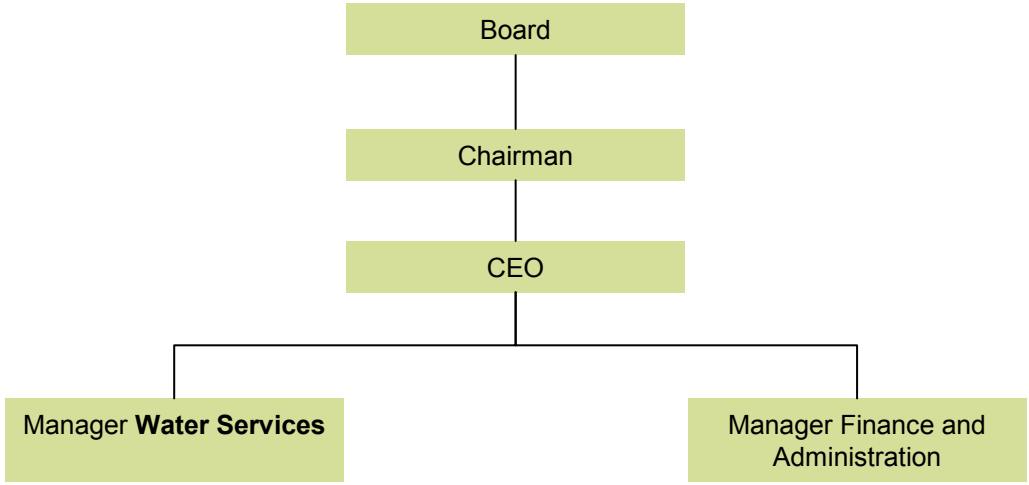
Total Non-Current Asset Value ($): 63.8M

Total OPEX ($): 5.7M

Total CAPEX ($): 6.0M

Water Sales Revenue ($): 7.2M

Regulator: Economic Regulation Authority



NOTE:

- *2009 Organisation structure, www.aqwest.wa.gov.au*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Sydney Catchment Authority

New South Wales, AUSTRALIA

The Sydney Catchment Authority (SCA) is a NSW Government agency that manages and protects Sydney's drinking water catchments, catchment infrastructure, and supplies bulk water to its customers. The Sydney Catchment Authority's (SCA's) primary responsibilities are to manage and protect the drinking water catchments and reservoirs to reliably supply bulk water to Sydney Water, and the local councils, including Shoalhaven City Council and Wingecarribee Shire Council.

The Independent Pricing and Regulatory Tribunal determines the maximum prices the SCA can charge for its services.

Population Served: NOT AVAILABLE

Total Water Sourced (ML): 504,367

No. of FTEs: 288

No. of Treatment Plants: NOT AVAILABLE

Length of Mains (KM): NOT AVAILABLE

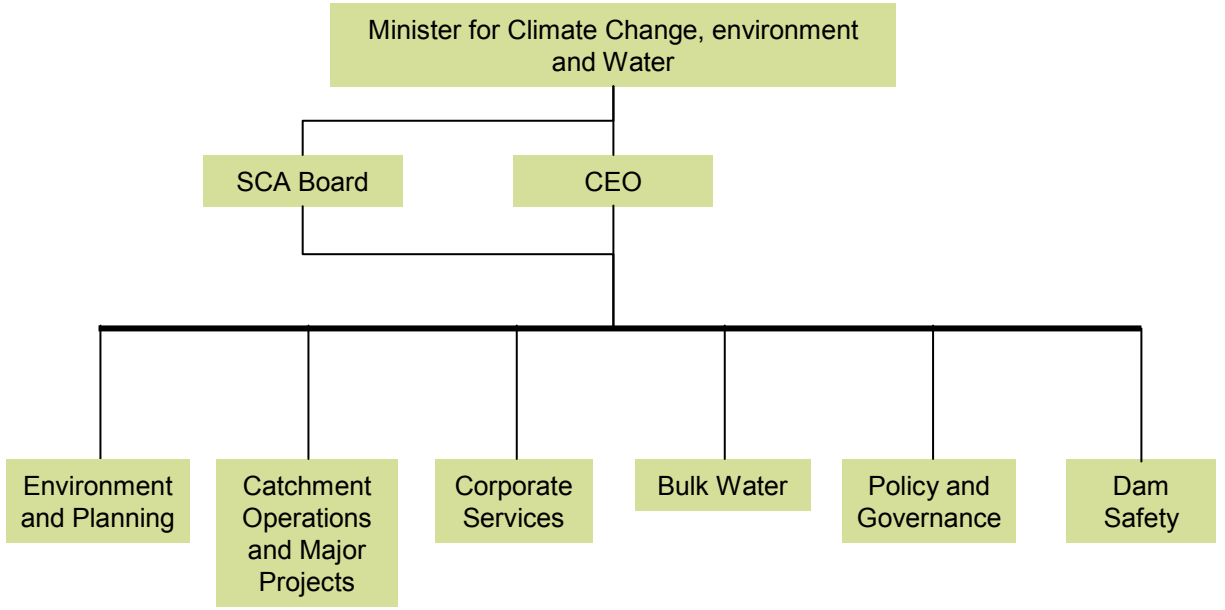
Total Non-Current Asset Value ($): 698.1M

Total OPEX ($): 99.9M

Total CAPEX ($): 103.8M

Water Sales Revenue ($): 155.7M

Regulator: IPART



NOTE:

- *2009 Organisation structure, www.sca.nsw.gov.au*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Hobart Water

Tasmania, AUSTRALIA

Hobart Water is the largest supplier bulk treated drinking water in Tasmania. Hobart Water manages catchment areas, collects and treats water and delivers it to councils. Hobart water was formed in 1997 when the Tasmanian State Government transferred ownership and management of the previous Hobart Regional Water Board to the eight local councils in and around Hobart.

Hobart Water provides these councils with high quality bulk drinking water which is then distributed to consumers in their respective municipalities.

Hobart Water is governed by a Local Government act, Water Management Act and the Hobart Regional Water Authority (Arrangements) Act. Hobart Water's prices are governed by the Government Prices Oversight Commission.

Population Served: 190,000

Total Water Sourced (ML): 41,409

No. of FTEs: 90

No. of Treatment Plants: 1

Length of Mains (KM): 421

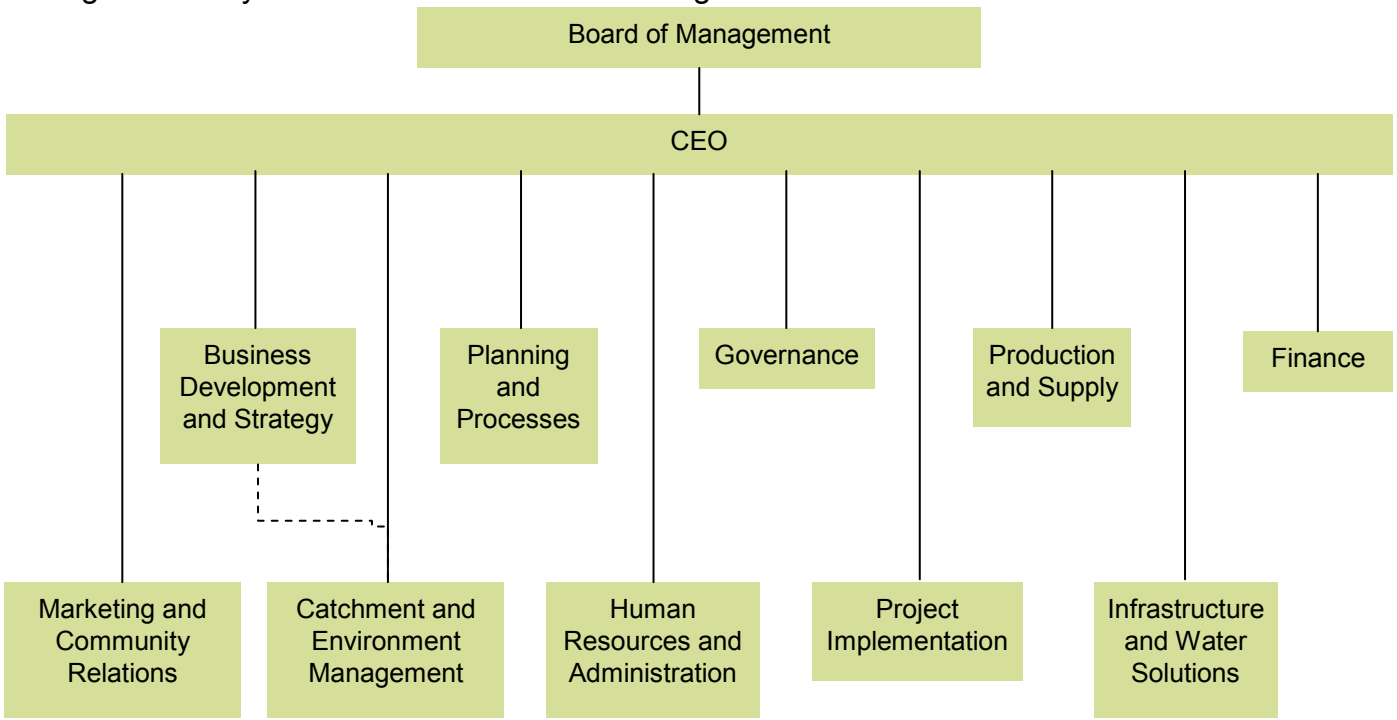
Total Non-Current Asset Value ($): 266.6M

Total OPEX ($): 16.4M

Total CAPEX ($): 6.7M

Water Sales Revenue ($): 25.0M

Regulator: Office of the Tasmanian Economic Regulator



NOTE:

- *2007/2008 Organisation structure, Hobart Water Annual Report 2007-2008*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Busselton Water

Western Australia, AUSTRALIA

Busselton Water is a community funded statutory authority and is administered by the Busselton Water Board, the members of which are appointed by the Governor in Executive Council.

Busselton Water extracts groundwater from two underground aquifers and eight deep artesian bores. Source water is treated (aerated and filtered) to remove iron so it complies with aesthetic related requirements of the Australian Drinking Water Guidelines.

Busselton Water provides treated drinking water to residents within the Busselton, Vasse and Wonnerup townsites. Busselton Water does not provide sewerage or drainage services. The functions and duties of Busselton Water are set out in the Water Board's Act 1904 (as amended) and the Reporting Standards are detailed in the Financial Management Act 2006 (as amended).

Population Served: 22,000

Total Water Sourced (ML): 4,031

No. of FTEs: 27

No. of Treatment Plants: 3

Length of Mains (KM): 270

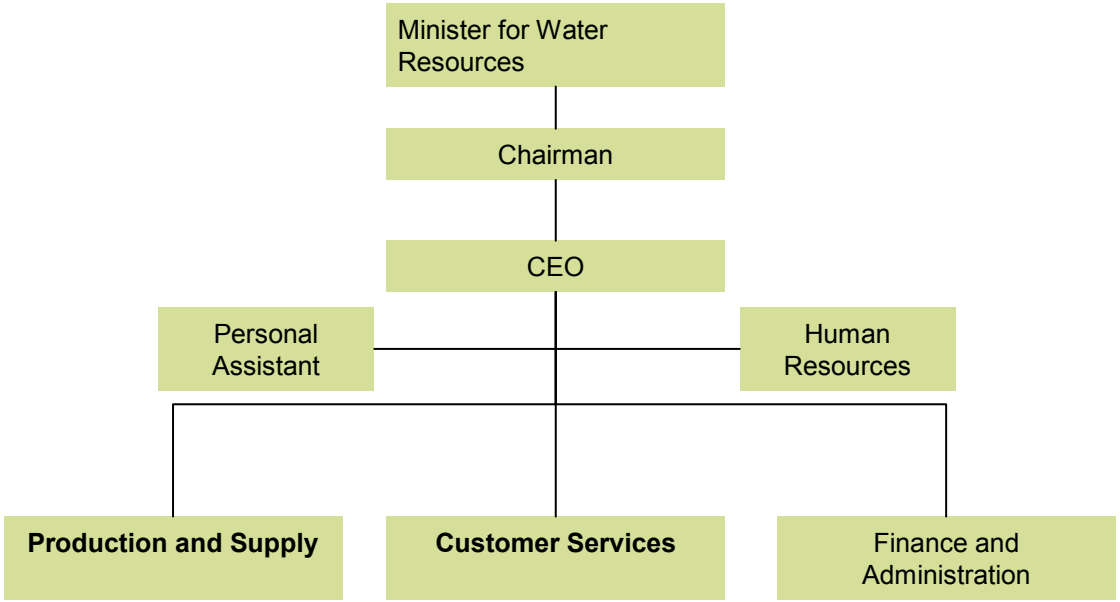
Total Non-Current Asset Value ($): 37.4M

Total OPEX ($): 3.0M

Total CAPEX ($): 2.0M

Water Sales Revenue ($): 4.3M

Regulator: Economic Regulation Authority



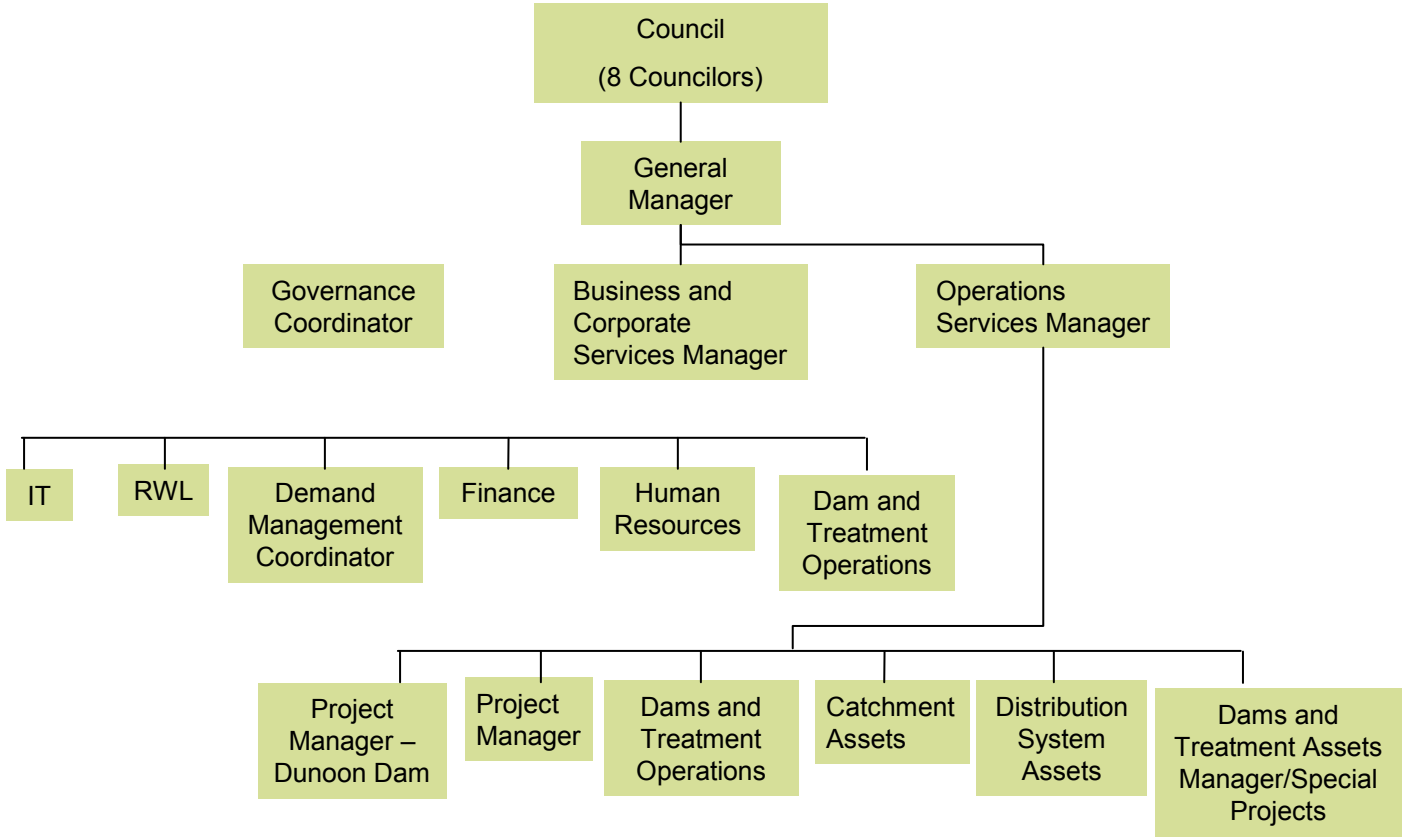
NOTE:

- *2009 Organisation structure, www. busseltonwater.wa.gov.au*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Rous Water

New South Wales, AUSTRALIA

Rous Water is the regional water supply authority providing potable water in bulk to the Council areas of Lismore (excluding Nimbin), Ballina (excluding Wardell), Byron (excluding Mullumbimby) and Richmond Valley (excluding land to the west of Coraki). Rous Water also has approximately 2000 of its own customers who are directly connected to the water distribution system.



Population Served: NOT AVAILABLE

Total Water Sourced (ML): 10,926

No. of FTEs: NOT AVAILABLE

No. of Treatment Plants: 2

Length of Mains (KM): 77

Total Non-Current Asset Value ($): 313.1M

Total OPEX ($): 7.8M

Total CAPEX ($): 0.07M

Water Sales Revenue ($): 7.5M

Regulator: Department of Water and Energy

NOTE:

- *2009 Organisation structure, www.rouswater.nsw.gov.au*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

WaterCare Services

Auckland, NEW ZEALAND

Watercare Services Limited, is New Zealand's largest supplier of water and wastewater services to the Auckland region.

Watercare Services is owned by the city and district councils of Auckland – Auckland City Council, Manukau City Council, North Shore City Council, Waitakere City Council, Papakura City Council and Rodney City Council. Watercare Services supplies bulk water to six water retailers, including Metrowater, North Shore City Council, Manukau Water, United Water, Rodney District Council, Waitakere City Council.

Watercare Services also operates a regional wastewater network, receiving wastewater from four of the region`s councils treating an average of 288,000 cubic metres of wastewater a day at the Mangere Wastewater Treatment Plant. Watercare Services is a council owned organisation under the Local Government Act 2002 and is a company registered under the Companies Act 1993.

Population Served: 1,234,333

Total Water Sourced (ML): 137,683

No. of FTEs: 373

No. of Treatment Plants: 6

Length of Mains (KM): 540

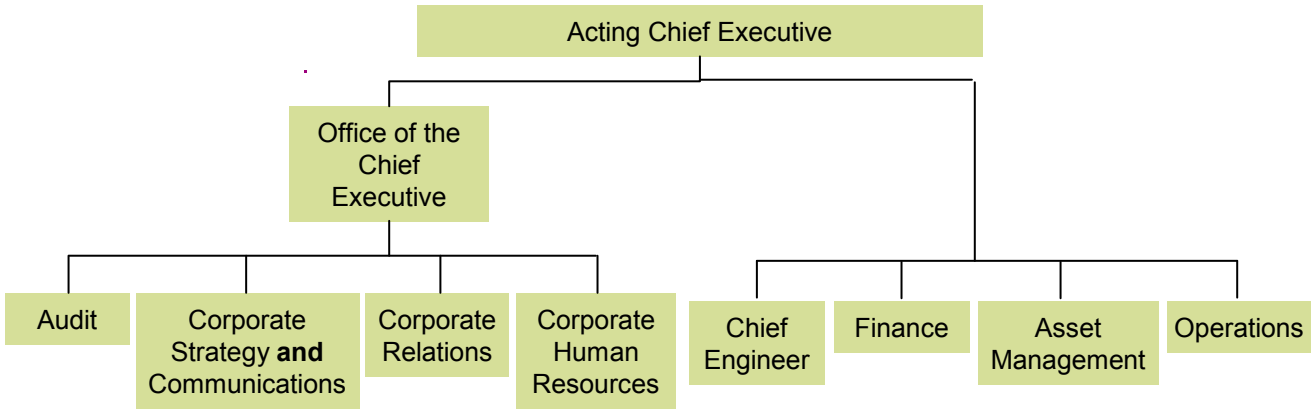
Total Non-Current Asset Value ($): 1.7B

Total OPEX ($): 27.2M

Total CAPEX ($): 30.8M

Water Sales Revenue ($): 52.6M

Regulator: Local Government Act 1974, Commerce Act 1986 and Companies Act 1993



NOTE:

- *2009 Organisation structure, www.water.co.nz*
- *Statistics are based on an average over 3 years*
- *All figures are in 2008 dollars*

Gladstone Area Water Board

QLD, AUSTRALIA

The Gladstone Area Water Board (GAWB) is a Category 1 Water Authority responsible to the Minister for Natural Resources Mines and Energy and Minister for Trade. GAWB is also a registered Service Provider under the Water Supply (Safety and Reliability) Act 2008 and operates as a commercialised statutory authority with the function of carrying out water activities.

GAWB's main role is to supply water in bulk to major consumers in the Gladstone Region including the supply of treated water to the Gladstone Regional Council. Approximately 20% of the bulk water supplied is treated water with the remaining 80% raw water supplied to industry.

Total Water Sourced (ML): 45,867

No. of FTEs: 39

No. of Treatment Plants: 2

Length of Mains (KM): 211

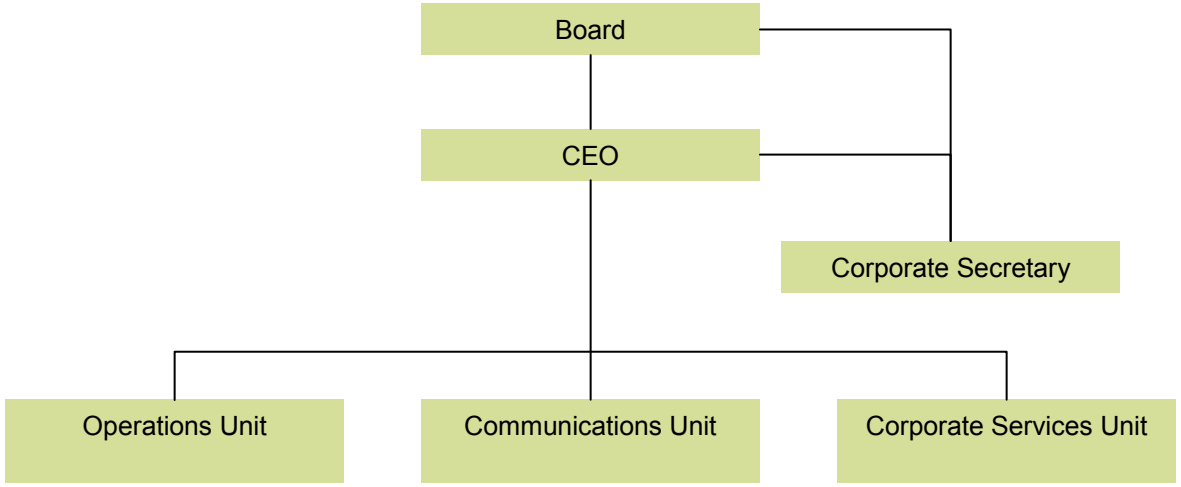
Total Non-Current Asset Value ($): 336.6M

Total OPEX ($): 11.6M

Total CAPEX ($): 3.5M

Water Sales Revenue ($): 25.6M

Regulator: QLD Competition Authority



NOTE:

- *2007/2008 Organisation structure, GAWB Annual Report 2008*
- *All statistics excluding CAPEX are based on 2008-2009 data. The CAPEX is based on a 3 year average.*
- *All figures are in 2008 dollars*

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Data Definitions (1 of 2)

Metric	Definition
Total OPEX	This is the sum of labour, materials and contract services for water only.
Total CAPEX	This is the capital expenditure for water only. It is the expenditure associated with the purchase of a generally large item or system having a multi-year lifetime. These expenditures are charged against a authority's earnings over a period of years, based on some predetermined amortisation schedule (straight-line, accelerated, etc), as opposed to an expensed item, which is taken against earnings entirely in the year obtained. Capital expenditure needs to be captured on an annual basis over the last four financial years (i.e. 2008-2009, 2007-2008, 2006-2007 and 2005-2006).
Total Water and Wastewater OPEX	This is the sum of labour, materials and contract services for both water and wastewater.
Total Water and Wastewater CAPEX	This is the capital expenditure for both water and wastewater. It is the expenditure associated with the purchase of a generally large item or system having a multi-year lifetime. These expenditures are charged against a authority's earnings over a period of years, based on some predetermined amortisation schedule (straight-line, accelerated, etc), as opposed to an expensed item, which is taken against earnings entirely in the year obtained. Capital expenditure needs to be captured on an annual basis over the last four financial years (i.e. 2008-2009, 2007-2008, 2006-2007 and 2005-2006).

Data Definitions (2 of 2)

Metric	Definition
Non-Current Asset Value	This is the total value of non-current assets as reported in the Balance Sheet.
Number of FTEs	This is the number of Full Time Equivalent staff. 1.0 FTE is one person who works for 2080 hours in a year (52 weeks x 40 hours / week). For example, if you were collecting information on a calendar year basis and if you had 50 employees on January 1 and 10 of them left at the end of September, you would have 47.5 FTEs [40 + 10(9/12)] to represent the 40 employees who worked the entire year plus the 9 months worked by the remaining 10 employees. As a further example, if you have 10 part-time clerks, each of whom works a 20-hour week, they would represent 5 FTEs.
Number of Employees	The number of people employed by the authority, regardless of whether they are full time or part time.
Water Sales Revenue	The amount earned in revenues for the sale of raw water.
Volume of Water Sourced	The amount of water sourced from: • Surface water; • Groundwater; • Desalination; • Recycling; • Source supplier; and • Purchased recycled water.

Contents

Key Assumptions (1 of 4)

General Assumptions

- All data collected is based on 2005-2006, 2006-2007 and 2007-2008 annual data.
- The term 'Catchment Management and Recreation' is interpreted as external activities such as hatchery, recreation and agriculture.
- Costs directly associated with catchment management could not be extracted from the peer group data as these costs are not visible.
- Where possible, expenses that are not specific to the supply of water have not been included in calculating the 'Total OPEX'.
- 'Total OPEX' includes all expenses specific to water but excludes depreciation, loss on sale of assets and financial costs.
- In relation to wastewater statistics:
  - Costs relating to wastewater were extracted from WaterCare Services.
  - Where possible, costs relating to wastewater were removed from Melbourne Water information.
  - Melbourne Water has wastewater incorporated within some of their statistics.

Key Assumptions (2 of 4)

General Assumptions (continued)

- Financial costs excluded bank charges and fees, interest expenses , QTC and neutrality payments (state of Queensland specific).
- 'Water Sales Revenue' includes all items directly associated with water sales income as recorded in the Profit and Loss Statement of the Annual Report. This does not include developer contributions.
- Capital expenditure has many different drivers, which individually may contribute to capital over-spend or under-spend in any given year. Efforts were made to reduce the 'lumpiness' of capital expenditure by averaging figures for each of the peer group over the last three years. An assessment of whether capital expenditure is justified on a year-by-year basis for each of the peer group was not conducted during this study.
- The 'Total CAPEX' figure adopted represents capital expenditure specific to water services only. That is, it does not include the capital expenditure for wastewater, hatchery, recreation, other functions, etc.
- Where a 'Total CAPEX' figure is not available, the 'Total CAPEX' is estimated by summing the cashflow for the purchase of non-current assets as reported in the Annual Report.
- Where the total number of FTEs is not publicly available, the total number of employees has been used.

Key Assumptions (3 of 4)

General Assumptions (continued)

- The definition of 'Employee Benefits' includes all direct expenses associated with the employment of staff and as such salaries, superannuation, recreation leave and redundancies, annual and long service leave, payroll tax and FBT.
- For peer organisations, a three (3) year average has been used for each data item where possible.
- 2008 dollars has been used to allow for comparisons.
- For Australian peer organisations, it is assumed that average rate of inflation for 2006 dollars to covert to 2008 dollars is 3.3% p.a. (Source: Reserve Bank of Australia).
- For Australian peer organisations, it is assumed that inflation rate to convert 2007 dollars to 2008 dollars is 4.4% p.a. (Source: Reserve Bank of Australia).
- For Australian peer organisations, it is assumed that inflation rate to convert 2008 dollars to 2009 dollars is 2.5% p.a. (Source: Reserve Bank of Australia).
- For New Zealand peer organisations, it is assumed that the exchange rate is $1 AUD = $1.2 NZD.

Key Assumptions (4 of 4)

GAWB Specific Assumptions

- 'Total CAPEX' does not include the capital expenditure associated with hatchery and recreation activities.
- The operating expenditure for catchment management is not visible in the peer group data. As a result, all costs directly associated with hatchery and recreation for GAWB have been removed from the 'Total OPEX' figures.
- The 2008-2009 'Total OPEX' and 'FTE' data was used in this benchmarking study, as this is believed to be most representative of the business going forward.
- The 'Total CAPEX' is an average of the capital expenditure in the years 2008-2009, 2007-2008 and 2006-2007.