Richard J. Koerner Ph.D.(Qld), M.E.Sc., B.C.E (Melb), MICE
Strategic Management / Econometric Market Analysis - ABN 26 021 850 787
31 Fauna Terrace Coolum Beach Qld. 4573

25 February 2011

The Chief Executive Officer
Queensland Competition Authority
G.P.O. 2257
Brisbane Qld.4001

Dear Sir/Madam,

The Queensland Competition Authority (QCA) has invited public comment regarding its Draft Report SEQ Interim Price Monitoring for 2010/11-Part B (the Report). Please consider this further submission as a more detailed supplement to the public submission dated 17 February.

I refer to the correspondence from the Treasurer's Office (Ref: QTO-09535) included with the Original Submission. In the first paragraph of p.2 of QTO-09535 it is asserted that *from 1 July 2010, the written-down value of assets will no longer be used as the basis for setting or measuring returns for water and wastewater prices.* In Section 2.5 (p.84) of the draft Report, QCA has accepted the Allconnex proposal for apportionment of the legacy RAB valuations mandated by the Minister Natural Resources between water and wastewater that is determined on the basis of the written down valuations. Such acceptance is at variance with information given in QTO-09535 as cited above.

In Section 3.5 (p.149) of the draft Report Unitywater has also apportioned mandated 2008 Legacy RAB determinations of the Minister Natural Resources on the basis of written down values (WDVs). This methodology approach is also at variance with the information provided in QTO-09535.

For reasons set out in comments of 17 February and the apportionment issues discussed above, the wording of the final QCA statement at the end of Section 3.5 (p. 150) requires redrafting.

The "Statement of Regulatory Pricing Principles for the Water Sector" Section 4.1 p.17 list of matters that QCA must have regard to in conducting an investigation includes:

- The need for efficient resource allocation;
- The costs of providing the relevant goods or services having regard to relevant benchmarks etc.;
- Considerations of demand management.

Efficient Resource Allocation

Correspondence from the Treasurer's Office (QTO-00946 dated 4 February 2008) describes a requirement set by the Ministers QCA in June 2005 that an optimisation study of non-current asset resource allocation of Maroochy Water Services (MWS) be completed by the end of 2006. Maroochy Council at first agreed to perform this study by December 2006 and later declined on the grounds of anticipated institutional water reforms in S.E. Queensland.

In late 2006 Treasury advised the Ministers QCA to refer a May 2003 prices oversight request to the QCA for independent investigation (Source: Correspondence from the Ombudsman). Correspondence from the Treasurer to Coolum Beach Progress and Ratepayers Association (TRO-19822 dated 16 November 2007), informed the Association of a decision by the Ministers QCA not to follow advice of Treasury to refer their prices oversight request on *the basis of impending wide-ranging institutional reforms to water in S.E.Queensland – reforms which will capture MWS.*

Detailed studies into the optimisation of non-current asset resource allocation of Maroochy Water Services (MWS) can be found in the MWS Advisory Board Agenda Reports (Ref. Items 9.2 and 9.3 of May 2002 Agenda Report). Given the utilisation rates for the most costly non current assets that are reported in Items 9.2 and 9.3 together with the narrative of events in QTO-00946, it is surprising that the Queensland Government's determination of Legacy RAB valuations has been accepted.

Benchmarking studies of comparative efficiency of the water and wastewater commercial entities of the Sunshine Coast and Caboolture for 2000/01 are reported as Items 9.5 and 9.6 in the MWS Advisory Board Agenda Reports of November 2002 (copies submitted electronically). Item 9.5 (Section 3 p.3) addresses water investment efficiency for these four commercial business entities. Findings that the Maroochy and Caloundra water investment efficiency was inferior to that of Noosa in 2000/01 is significant considering that economies of scale are normally to be expected in such capital intensive businesses.

Findings of Section 3 of Item 9.5 important for consideration in bulk water demand forecasting are the higher peaking factors for Maroochy and Caloundra vis-à-vis Noosa. This can be explained from studies involving time series regression modelling of dwelling approvals against lagged population growth that suggest a high proportion of dwelling approvals in Maroochy and Caloundra are more speculative in nature and tend to be occupied only during holiday periods. Evidence of inefficient resource allocation of MWS compared with other Sunshine Coast wastewater entities, and in particular Noosa Water Services, can also be found in the benchmarking analyses reported as Item 9.6. Again this is surprising as sewerage collection and wastewater treatment are capital intensive activities and economies of scale would normally be expected.

It should be noted that neither Treasury nor the Sunshine Coast Council has provided clarification relating to the Sunshine Coast Water capital efficiency benchmarking information request of 24 May 2010 relating to WDVs per connection for 2006/07 and 2007/08. Given findings of the studies cited above and lack of clarification by the Sunshine Coast Regional Council it is surprising that Unitywater's estimates of future capital requirements listed in Tables 14 and 15 (p.153) have been endorsed without comprehensive optimisation studies of non-current assets similar to Items 9.2 and 9.3 of the May 2002 Agenda Report of the MWS Advisory Board.

Amalgamation of MWS first into Sunshine Coast Water and now Unitywater has resulted in total loss of the financial and operational transparency formerly available in the public domain. Given the Ministers QCA preference (TRO-06280 dated 25 September 2004 p.2) that MWS re-instigates the preparation of publicly available detailed annual financial reports and participates in surveys of water and sewerage that permit meaningful performance benchmarking such amalgamations are confusing.

Institutional water reforms leading up to the establishment of Unitywater has now led to complete loss of transparency relating to MWS since 2007/08 and is a significant breach of NWI related reform agreements between the Queensland and Federal Governments. It is a matter that one would have hoped the draft Report would address given correspondence accompanying the Original submission.

Relevant Benchmarking

Benchmarking of prices of Unitywater appearing in Section 3.3 Charts 1 and 2 do not provide assurance to stakeholders that 2010/11 revenues are unlikely to exceed the Maximum Allowable Revenue (MAR) requirement established from NWI Regulatory Pricing Principles. These charts compare separate water and wastewater price determinations by Unitywater and QCA for 2010/11 with comparable prices for 2009/10. However prices for 2009/10 were determined after accepting the capital recovery components of cost that are based on the Queensland Government's determination of Legacy RAB.

It is suggested that these charts be removed or significantly qualified for the following reasons:

- No analysis is provided by Unitywater (or warrant by QCA) to assure stakeholders that Legacy RAB determinations are in accord with the NWI Regulatory Pricing Principles:
- The apportionment of assets between water and wastewater determined by Unitywater has used WDVs counter to the information provided by the Treasurer in QTO-09535.
- Bulk water pricing schedules developed by the Queensland Water Commission (QWC) for pass through by all three S.E. Queensland's retail entities have not been referred to QCA for independent scrutiny.

For these same reasons it is suggested that the price benchmarking charts appearing in Section 2.5 of the draft Report for Allconnex also be appropriately qualified.

Demand Management

Efficient demand management requires consideration of both price elasticity of demand consequences of full cost pricing and demand growth forecasting. Unitywater has adopted principles of full cost pricing for 2010/11 according to information provided in correspondence dated 23 August 2010, so it is assumed a policy of full cost pricing to achieve MAR will be adopted for the foreseeable future. I wish now to comment on the discussion of demand forecasting that appears in Section 3.4 pps. 141-148 of the draft Report.

Under the heading General Approach (p.142), Frontier Economics identifies key drivers of service demand that include population and dwelling/connection growth. The draft Report (p.143) accepts PIFU growth rates as the most reliable independent estimates currently available.

Richard J. Koerner Ph.D.(Qld), M.E.Sc., B.C.E (Melb), MICE
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PIFU forecasts are developed by local governments in conjunction with the Queensland Government's Office of Economic and Statistical Research (OESR) and cannot be considered independent. Reliance on PIFU forecasts presents significant problems for Unitywater to carry out its role as an efficient and effective commercial business entity for the following reasons:

- PIFU forecasts are simplistic, subjective and too short term to be relied upon for the strategic non-current asset investment decisions required for water and wastewater service supply. Reliance must also be placed on long-term growth forecasts that are developed by the Queensland Government.

- Preparation of these population growth forecasts involves considerable subjective assessment of the results achieved at each stage of the production process. Local government areas (LGAs) are consulted to provide local input in relation to future population change, while studies into specific industries such as mining, major projects planning, regional plans and other research are also used to provide data inputs and to assist with the production of the projections. LGA projections also consider the long-term demographic trends in the primary components of population that are developed by OESR.

- Influences of short-term activities or unusual events are not modelled by OESR. For example, modelling does not incorporate possible effects of change in immigration policy, natural disasters/climate change, or changes in economic conditions such as the global financial crisis (GFC) by employing scenario based econometric techniques.

- The approach methodology does consider effects of announced major residential developments and major employment generating projects which could bias the projections toward higher growth. The output from such studies is always dependent on the quality of the input data and the underlying assumptions used. Those assumptions are not stated or tested using either scenario sensitivity analyses or econometric modelling techniques.

- Use of time series extrapolation forecasting methodology or simplistic trend extrapolation for such fundamental strategic planning projections as population and dwelling/connection growth is inadequate. These approaches ignore critical environmental factors such as the business cycle, possible housing bubble effects impacting relative housing price competitiveness in S.E. Queensland vis-à-vis housing prices elsewhere in Australia, household debt and national debt trends, capital gains tax policy, possible impact of changes in national immigration policy, Australia's future balance of trade trends, future transportation primary energy costs (including onset of Peak Oil), global warming related emission pricing policy, climate change abatement cost impacts for future development in S.E.Queensland and the like.

For example the 2008 GFC, that is not considered in the current S.E.Queensland Regional Plan's population and dwelling growth projections, was triggered by the collapse of a speculative housing bubble in the USA. According to a study by Roberto Cardarelli of the International Monetary Fund, Australia's house price gap from 1997 and 2007 that could not be explained by fundamental economic factors was in excess of 20%. That for the USA was about 10%, Ireland's was in excess of 30% and the UK close to 30%. According to the latest comparative house price indicators published by the Economist examining housing price trends between 1st Quarter 1996 and 3rd Quarter 2010, Australia's housing bubble remains the highest in the OECD despite the correction occurring in 2009 as a result of the GFC.

In an article entitled *"The changing housing cycle and its implications for monetary policy"* Cardarelli et. al. (April 2008) suggests that central monetary authorities may have to intervene to ameliorate excesses arising due to housing investment speculation to prevent financial meltdowns in future. S.E. Queensland as a whole and portions of the Sunshine Coast Region serviced by Unitywater and the Gold Coast serviced by Allconnex in particular are prone to considerable speculative development pressures. Effects changes in monetary policy could pose considerable strategic investment risk for all S.E. Queensland bulk water, retail water, and wastewater commercial entities. Given the problems discussed above with respect to demand forecasting methodology, it is surprising that SKW has recommended the growth component of capital expenditures shown in Table 13 p. 152.

Richard J. Koerner Ph.D.(Qld), M.E.Sc., B.C.E (Melb), MICE
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Governance and Institutional Arrangements

Critical governance issues are highlighted in the Productivity Commission's current Urban Water Sector Inquiry Issues Paper (September 2010). Section 8 (pps. 32-33) of the Issues Paper spells out the fundamental components of an efficient governance framework. The draft Report presently neglects to address issues relating to transparency, accountability, integration and adaptability that are discussed in Section 8. The Original Submission and other stakeholder supporting correspondence relating to these issues are not presently afforded due process as matters in which the QCA must have regard in the present wording of the second to last and last paragraphs of page 149. This is particularly disappointing as the supporting documentation includes correspondence from senior Ministers of the Queensland Government including offices of the Treasurer and Premier, who have policy responsibility for the implementation of NWI regulatory framework in S.E. Queensland.

Extensive redrafting of the second to last and last paragraphs of p. 149 of the Report is suggested on the following grounds:

- Wide-ranging institutional reforms to water in S.E.Queensland involving amalgamations that have taken place since 2007 offend the fundamental principle of transparency;

- Correspondence from the CEO Unitywater dated 23 August (paragraph four) and correspondence from the Minister Natural Resources dated 17 December 2010 (paragraph four) when read in conjunction demonstrate accountability is lacking in the Government's determination of the 2010/11 prices set by Unitywater;

- Inclusiveness is prevented by total elimination of financial and operating transparency formerly available in the public domain so that external stakeholders no longer have access to the data necessary to evaluate performance of individual water and wastewater entities now amalgamated into Unitywater;

- Unitywater is a subsidiary of the Queensland Government and also a commercial business supplier of natural monopoly services. Board directors have been selected by the Government and interests of consumers are not protected by a majority of these directors as is evidenced by that Board's acceptance of Government mandated Legacy RAB valuations and QWC's determination of bulk water prices not subject to independent scrutiny by QCA;

- The decision of senior Ministers of the Queensland Government to mandate 1 July 2008 Legacy RAB valuations and dictate bulk water charges has deprived households of their rights to statutory protection against monopoly pricing abuse that is contemplated under NWI water reform agreements in S.E. Queensland.

These comments and suggestions are volunteered to assist QCA becoming an effective regulatory agency with respect to its role as an independent price regulator for water and wastewater natural monopoly service providers. That critical role is spelled out in the NWI water reform agreements between the Queensland and Federal Governments relating to the implementation of National Competition Policy reforms in Queensland.

Yours sincerely,

R.J.Koerner

Richard J. Koerner Ph.D.(Qld), B.C.E. & M.E.Sc.(Melb), M.I.C.E.(UK)
Strategic Management / Econometric Market Analysis

To: Maroochy Water Services Advisory Board
Attn. Mr Graeme Preston - Group Manager Business Units

Date: 8th July 2002

Subject: Water Services Benchmarking Study

The following report addresses portion of the requirements spelled out in Item 1.4 of the Board's project brief for conduct of financial analyses (see agenda item 3.2 of Board papers of 26th October 2000).

Reforms defined by the Council of Australian Governments Strategic Water Reform Framework cover such issues as water and sewerage service pricing and performance monitoring, and best practice for delivery of services. To further progress the benchmarking assessment of Maroochy Water Services (MWS) under the reform framework, studies of comparable water service operations of the Noosa, Caloundra and Caboolture Councils, and the Caloundra-Maroochy Water Supply Board have been performed.

This report compares the bulk water and water treatment (wholesale water), and the distribution (retail water) business elements of MWS with like elements of Noosa, Caloundra and Caboolture Councils using 2000/01 financial and operating data.

1) Introduction

For benchmarking studies to be meaningful, it is important that comparisons are done on a consistent basis as far as is practicable. Much useful financial and operating data are available in the public domain that can be used as the starting point. However there may be subtle differences in the way such data are prepared and reported by various organizations. Data submitted annually to the Queensland Department of Natural Resources for compilation of the Non Major Utilities Performance Monitoring Report are the secondary source for the financial and operating statistics and ratios quoted hereafter.

Water supply and distribution services offered by MWS, and Noosa, Caloundra and Caboolture Councils are similar. Maroochy utilized 14,619 megalitres (ML) of treated water in 2000/01. The quantity utilized by the Noosa was 6,816 ML and Caloundra Council used 9,690 ML. Caboolture Council utilized 14,839 ML. Rainfall in 2000/01 was unusually low in the service areas of all four Councils, being below the 99% confidence interval lower bound. Climate, demand growth and lifestyle patterns of residents are similar. Proportions of residents having water supply relative to total population, and visitor/tourism demand patterns for water are similar, particularly for Maroochy, Noosa and Caloundra Councils.

Caloundra obtains practically all treated water from the Caloundra-Maroochy Water Board (the Board), a joint local authority that Caloundra and Maroochy Councils own equally. In 2000/01 the Board produced and sold 19,400 ML. MWS obtained 9,929 ML from the Board and 4,629 ML was produced from the Image Flats treatment plant. Caboolture produced 6,545 ML and purchased 8,294 ML from Brisbane City Council. Noosa produced its treated water from fully owned facilities apart from the Borumba Dam. MWS utilized some 953 kilometers (km) of water main to provide reticulation services. Noosa utilized 447 km of water main; Caloundra 589 km , and Caboolture 1,228 km for treated water reticulation.

In June 2001, MWS had 47,520 properties serviced by the reticulation system; Noosa had 24,803; Caloundra had 26,865, and 42,870 for Caboolture. Populations served were estimated to be 125,000 for MWS, 45,700 for Noosa, 70,000 for Caloundra and 112,150 for Caboolture.

Detailed statistics suggest that the MWS system distributed and sold average annual metered flows of some 290 kilolitres (KL) of treated water per physically connected property, compared with 256 KL for Noosa, 334KL for Caloundra, and 329KL for Caboolture in 2000/01.

2) Capital Investment Benchmarking

The gross replacement and written down replacement values (WDRV) of employed assets associated with water supply infrastructure (in $ millions at 6/2001) are:

	Gross	WDRV
Maroochy Wholesale*	$48.3	$32.7
Maroochy Retail	$165.9	$114.1
Noosa Wholesale	$43.2	$32.1
Noosa Retail	$101.5	$78.5
Caloundra Wholesale*	$46.3	$34.6
Caloundra Retail	$101.1	$59.8
Caboolture Wholesale	$19.4	$13.2
Caboolture Retail	$209.3	$149.5

* Includes 50% of the Water Board assets.

When fully developed following augmentation of the Landers Shute WTP, the Board will be capable of delivering 36,000 ML of treated water annually on a sustainable basis. Gross replacement capital investment will likely be some $58 million at that stage, suggesting a wholesale water replacement investment of $1610 per ML of sustainable annual deliverability. MWS fully owned wholesale water facilities (Wappa Dam, Image Flats etc.) have a sustainable annual deliverability of 9,900 ML. Gross replacement investment is some $2,700 per ML of annual capacity. Noosa is less well endowed with respect to water resources with a gross infrastructure investment of $43.2 million for off-take rights of 10,000 ML annually, or $4,320 per ML. A valuation of the wholesale water assets of Brisbane City Council associated with supply of treated water to Caboolture Council is not available. However Caboolture's gross replacement investment per ML produced in owned facilities was $2,964. These comparisons suggest the wholesale water operations of Maroochy and Caloundra Councils are significantly advantaged because of their participation in the Water Board joint venture.

Average gross replacement and WDRV of water assets per serviced property:

	Gross	WDRV
Maroochy Wholesale*	$1,016	$688
Maroochy Retail	$3,491	$2,401
Noosa Wholesale	$1,742	$1,294
Noosa Retail	$4,092	$3,165
Caloundra Wholesale*	$1,723	$1,288
Caloundra Retail	$3,763	$2,226
Caboolture Wholesale	$452	$308
Caboolture Retail	$4,882	$3,487

*Includes 50% of the Water Board joint venture assets.
Wholesale water average investment comparisons between Caboolture and the other Councils are distorted by a lack of investment data relating to works associated with the Brisbane City Council (BCC) supply agreement.

3) Capital Investment Efficiency Benchmarking

Provision of treated water is a capital intensive business activity. Efficiency of investment of assets employed to meet peak demand, and utilization of existing facilities are important to compare in benchmarking performance. All four Councils are experiencing similar annual growth in demand of about 3% per annum as a result of high levels of immigration to South East Queensland. Broad indicators of ulilization efficiency for existing infrastucture can be found in the comparisons of ratios of system deliverability of treated water to peak day demand, and system peaking factors that follow:

	Deliverability/Peak Day Demand	Peak day Demand/Average Day Demand
Caloundra*	4.15	1.68
Maroochy*	3.76	1.48
Noosa	2.90	1.70
Caboolture*	2.61	1.73

*(Includes 50% of Water Board deliverability and Caboolture's volume entitlement from BCC)

This comparison of ratios of system deliverability to peak day demand suggests that for a far drier than normal year in 2000/01, Caloundra and Maroochy Council's investment efficiency was lower than Noosa and Caboolture, despite having lower system peaking factors of demand.

4) Operating Cost Benchmarking

Operating, maintenance and administration (OM&A) per megalitre of treated water utilized (excluding capital related charges):

	Wholesale Water (Excluding purchased water)	Retail Water
Maroochy (MWS)	$351.2	$282.2
Noosa	$269.2	$352.1
Caloundra	$1478.8	$225.5
Caboolture	$189.2	$125.0
C-M Water Board	$85.5	n/a

Average OMA cost per ML of treated water produced by MWS in 99/2000 was $428.7, and Board supplies cost $87.8 per ML. Much of the year to year reduction in wholesale unit cost for MWS from 99/00 to 00/01 can be attributed to improved operating efficiencies due to increased demand because of lower than expected rainfall. Such low comparative costs for 1999/00 and 2000/01 confirm the significant operating cost advantages that exist for the two Councils supplied by the Board. Very high wholesale water unit costs are suggested for Caloundra Council due to the Caloundra WTP (27 ML/day) being offline.

Operating, maintenance and administration (OM&A) per megalitre of treated water utilized, including a nominal 4% ROI on WDRV of employed assets, are as follows:

	Wholesale Water (Excluding purchased water)	Retail Water
Maroochy	$488.5	$594.4
Noosa	$457.6	$812.8
Caloundra	$5569.7	$472.4
Caboolture	$269.9	$528.0
C-M Water Board	$119.7	n/a

Disparate wholesale water unit costs are suggested for Caloundra Council due to the Caloundra WTP (27 ML/day) being offline, and some $16.5 million of associated infrastructure WDRV existing as wholesale water assets.

5) Average Profit Margin per megalitre of treated water sold

	MWS	Noosa	Caloundra	Caboolture
Average revenue	$1495.0	$1032.2	$930.2	$1274.2
Cost of sales*	$957.4	$1439.1	$907.8	$897.3
Margin/ML	$537.6	($406.9)	$22.4	$376.9

* Including a nominal 4% ROI on WDRV of assets.

As a consequence of both higher connection charges and metered water unit rates, average revenue and the profit margin per ML of sales for MWS appears excessive relative to other Sunshine Coast Councils. The result confirms similar findings in the 99/00 water benchmarking study, and such high profit margin levels are unlikely to be sustainable over the long term.

6) Average Profit Margin per connected property

	MWS	Noosa	Caloundra	Caboolture
Average revenue	$434.1	$264.3	$310.7	$418.7
Cost of sales*	$278.0	$368.4	$303.5	$294.9
Margin	$156.1	($104.1)	$7.2	$123.8

* Including a nominal 4% ROI on WDRV of assets.

These data can be combined with like calculations for the profit margins relating to sewerage services, to arrive at average profit margins for properties connected to water and sewerage that follow:

	MWS	Noosa	Caloundra	Caboolture
Water services margin	$156.1	($104.1)	$7.2	$123.8
Sewerage services margin	$143.8	($0.1)	$17.2	$56.9
Total	$299.9	($104.2)	$24.4	$180.7

7) Debt Benchmarking

	Book value – millions			
	MWS	Noosa	Caloundra	Caboolture

	(inc. 50% Board)		(inc. 50% Board)	
Wholesale Water	$10.1	$0.0	$7.2	$0.3
Retail Water	$22.7	$0.0	$0.4	$0.2
Total operations	$32.8	$nil	$7.6	$0.5

Debt comparisons suggest that Maroochy council has not yet recovered reticulation infrastructure investment through appropriate developer headwork contributions. The Marsden Jacob report suggests that the present schedule of headwork charges continue this practice.

RECOMMENDATIONS

That the Board:

- Note the report in light of similar findings for the 1999/00 benchmarking study, and the disparate levels of charge relative to cost for water services by Maroochy Council compared with other Sunshine Coast Councils that may not be sustainable.

- Obtain and evaluate strategies to progress toward achieving best practice for the delivery of water services on the Sunshine Coast. These should be developed after Management's review and presentation to the Board of the following topics:

a) The merits or otherwise associated with the present treatment of the Water Board's precept charge as an operating expense to MWS. This accounting policy appears to distort investment decision processes and hinders progress of MWS towards achieving the goal of becoming a fully commercial business unit.

b) Actual cash recoveries of headworks investment by MWS since adoption of the March 1998 Policy on Developer Contributions to Water and Sewerage Infrastructure. This review should examine whether methodologies presently used to develop contribution rates properly reflect the principle of user pays, the accuracy of subsidy assumptions used in planning and developing headworks rate schedules, and collection of interest incurred on MWS debt associated with such investments.

Richard J. Koerner Ph.D.(Qld), B.C.E. & M.E.Sc.(Melb), M.I.C.E.(UK)
Strategic Management / Econometric Market Analysis

To: Maroochy Water Services Advisory Board
Attn. Mr Graeme Preston – Group Manager Business Units

Date: 5th August 2002

Subject: Sewerage Services Benchmarking Study

The following report addresses portion of the requirements spelled out in Item 1.4 of the Board's project brief for conduct of financial analyses (see agenda item 3.2 of Board papers of 26th October 2000).

Reforms defined by the Council of Australian Governments Strategic Water Reform Framework cover such issues as water and sewerage service pricing and performance monitoring, and best practice for delivery of services. To further progress the benchmarking assessment of Maroochy Water Services (MWS) under the reform framework, studies of comparable water service operations of the Noosa and Caloundra Councils, and the Caloundra-Maroochy Water Supply Board are being performed.

This report compares sewerage business elements of MWS with those of the Noosa, Caloundra and Caboolture Council sewerage operations using 2000/01 financial and operating data.

1) Introduction

For benchmarking studies to be meaningful, it is important that comparisons are done on a consistent basis as far as is practicable. Much useful financial and operating data are available in the public domain that can be used as the starting point. However there may be subtle differences in the way such data are prepared and reported by various organizations. Data submitted annually to the Queensland Department of Natural Resources for compilation of the Non Major Utilities Performance Monitoring Report are the secondary source for financial and operating statistics and ratios quoted hereafter.

Sewerage gathering and treatment services offered by MWS, Noosa, Caloundra and Caboolture Councils are similar apart from the scales of operations and levels of treatment. At present Caloundra treats 25% of sewage flows to the tertiary level and Caboolture 67%; whereas MWS treats 90% to the tertiary level, and Noosa 100%. Climate, demand growth and lifestyle patterns are similar, as are the proportions of residents having sewerage service access relative to population.

In 2000/01, MWS employed 7 separate sewerage treatment plants (STPs) and some 983 kilometers (km) of sewer main to provide services. Noosa employed 2 STPs with 378 km of sewer main. Caloundra employed 4STPs with 449 km of sewer main, and Caboolture 4STPs with 780 km of main.

In 2000/01, MWS transported and treated sewage flows of 12,459 megalitres (ML) compared with 3,490 ML for Noosa, 6,262 ML for Caloundra and 7,809 ML for Caboolture. Flows were lower than the previous year and lower than would usually be expected as 2000/01 was an abnormally dry year. MWS had 44,190 serviced properties. Noosa had 21,644 serviced properties, Caloundra 26,941 and Caboolture 30,940 serviced properties.

Comparative statistics suggest that the MWS system collected and treated average annual flows of some 296 kilolitres (KL) of sewage per physically connected property, compared with 169 KL for Noosa, 249KL for Caloundra and 270 KL for Caboolture in 2000/01. This higher value for MWS is surprising given that average metred water sales were 290 KL per connected property in 2000/01. Such large average flow differences, that were also identified in the 99/00 benchmarking study, remain deserving of further investigation in light of recent Maroochydore and Suncoast STP augmentations that have been driven by inadequate hydraulic flow capacity.

2) Capital Investment Benchmarking

The gross replacement and written down replacement values (WDRV) of employed assets in millions as of 6/2001 are:

	Gross	WDRV
Maroochy Wholesale	$75.3	$60.6
Maroochy Retail	$268.8	$203.6
Noosa Wholesale	$22.5	$19.4
Noosa Retail	$81.8	$65.2
Caloundra Wholesale	$42.9	$35.2
Caloundra Retail	$121.8	$83.7
Caboolture Wholesale	$57.2	$46.0
Caboolture Retail	$152.7	$99.4

Gross replacement and WDRV of sewerage assets per serviced property:

	Gross	WDRV
Maroochy Wholesale	$1704	$1371
Maroochy Retail	$6083	$4607
Noosa Wholesale	$1040	$896
Noosa Retail	$3779	$3012
Caloundra Wholesale	$1592	$1307
Caloundra Retail	$4521	$3107
Caboolture Wholesale	$1849	$1487
Caboolture Retail	$4935	$3213

Given that all their sewerage is treated to the tertiary level, such data suggest that the Noosa treatment system is the most capital efficient, and MWS the least capital efficient of the Councils studied. MWS investment in reticulation infrastructure (retail sewerage) appears disproportionate relative to the other councils.

3) Operating Cost Benchmarking

Operating, maintenance and administration (OM&A) per physically connected property (excluding capital related charges):

	MWS	Noosa	Caloundra	Caboolture
Wholesale Sewerage	$115.9	$87.2	$100.5	$127.4
Retail Sewerage	$81.8	$104.4	$102.5	$116.1
Total operations	$197.6	$191.6	$203.0	$243.5

OMA per connected property including a nominal 4% ROI on WDRV of employed assets:

	MWS	Noosa	Caloundra	Caboolture
Wholesale Sewerage	$173.5	$124.8	$156.5	$190.9
Retail Sewerage	$275.3	$230.8	$235.5	$253.4
Total (including 4% ROI)	$448.8	$355.6	$392.0	$444.3

Whilst OMA unit costs are similar, higher costs are suggested for MWS when a nominal 4% ROI is included. This suggests less efficient employment of fixed assets for MWS than for the other Sunshine Coast Councils.

4) Average Profit Margin per property connected

	MWS	Noosa	Caloundra	Caboolture
Sewerage Revenue	$592.6	$355.5	$409.2	$501.2
Operating Costs (inc. 4%ROI on WDRV)	$448.8	$355.6	$392.0	$444.3
Profit Margin	$143.8	($0.1)	$17.2	$56.9

Due to significantly higher pedestal charges, average sewerage service revenues per property for MWS appear excessive relative to cost and the revenues of other Sunshine Coast Councils. The result confirms similar findings in the 1999/00 benchmarking study, and current levels of profit margin may not be sustainable in the long term.

These data can be combined with like calculations for the profit margins relating to water services, to arrive at average profit margins for properties connected to water and sewerage that follow:

	MWS	Noosa	Caloundra	Caboolture
Sewerage services margin	$143.8	($0.1)	$17.2	$56.9
Water services margin	$156.1	($104.1)	$7.2	$123.8
Total	$299.9	($104.2)	$24.4	$180.7

5) Debt Benchmarking

	MWS	Noosa	Caloundra	Caboolture
		(Book value – millions)		
Wholesale Sewerage	$16.0	$0	$8.8	$0
Retail Sewerage	$56.8	$11.4	$20.9	$0
Total operations	$72.8	$11.4	$29.7	$0

Debt comparisons suggest that Maroochy Council continues to under-recover reticulation infrastructure investment through less than appropriate developer headwork contributions. The Marsden Jacob report suggested that the present schedule of headwork charges continue this practice.

Debt per serviced property:

	MWS	Noosa	Caloundra	Caboolture

Wholesale Sewerage	$362.1	$0	$326.6	$0
Retail Sewerage	$1285.4	$526.7	$775.8	$0
Total operations	$1647.5	$526.7	$1102.4	$0

RECOMMENDATIONS

That the Board:

- Note the report in light of similar findings for 1999/00, and the disparate levels of charge relative to cost for sewerage services by Maroochy Council compared with other Sunshine Coast Councils that may not be sustainable.

- Obtain and evaluate recommended strategies to progress toward achieving best practice for the delivery of sewerage services on the Sunshine Coast. These should be developed after Management's review and presentation to the Board of the merits of adopting differential charges for sewerage services under the principle of user pays, in those areas prone to higher than normal infiltration due to gravity mains being laid below the water table.