

IWA Congress Platform Paper

Do Australian Water Institutional Governance Regimes Respond to Rural & Urban Customer Preferences?

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IWA Track: Integrated Water Resources and River Basin Management

Theme: Institutional Development and Trans boundary Cooperation

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Commons Poem – A World Wide Problem Now

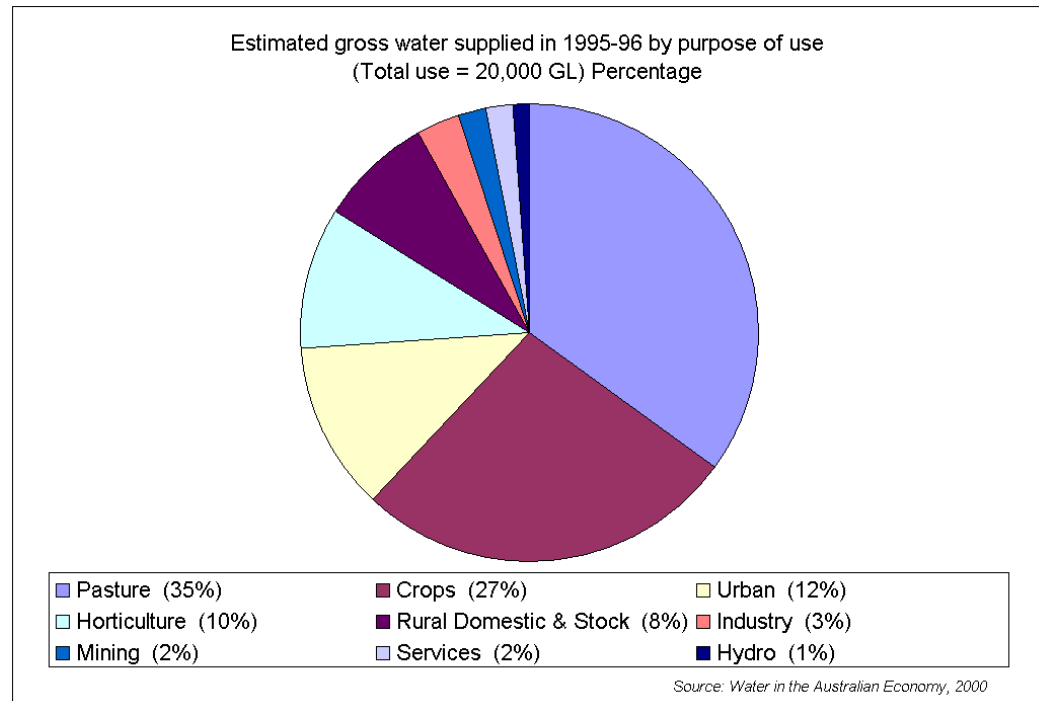


*They hang the man and flog the woman
That steal the goose from the common,
But let the greater villain loose
That steal the common from the goose.*

English folk poem, 1764

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Water in Australia

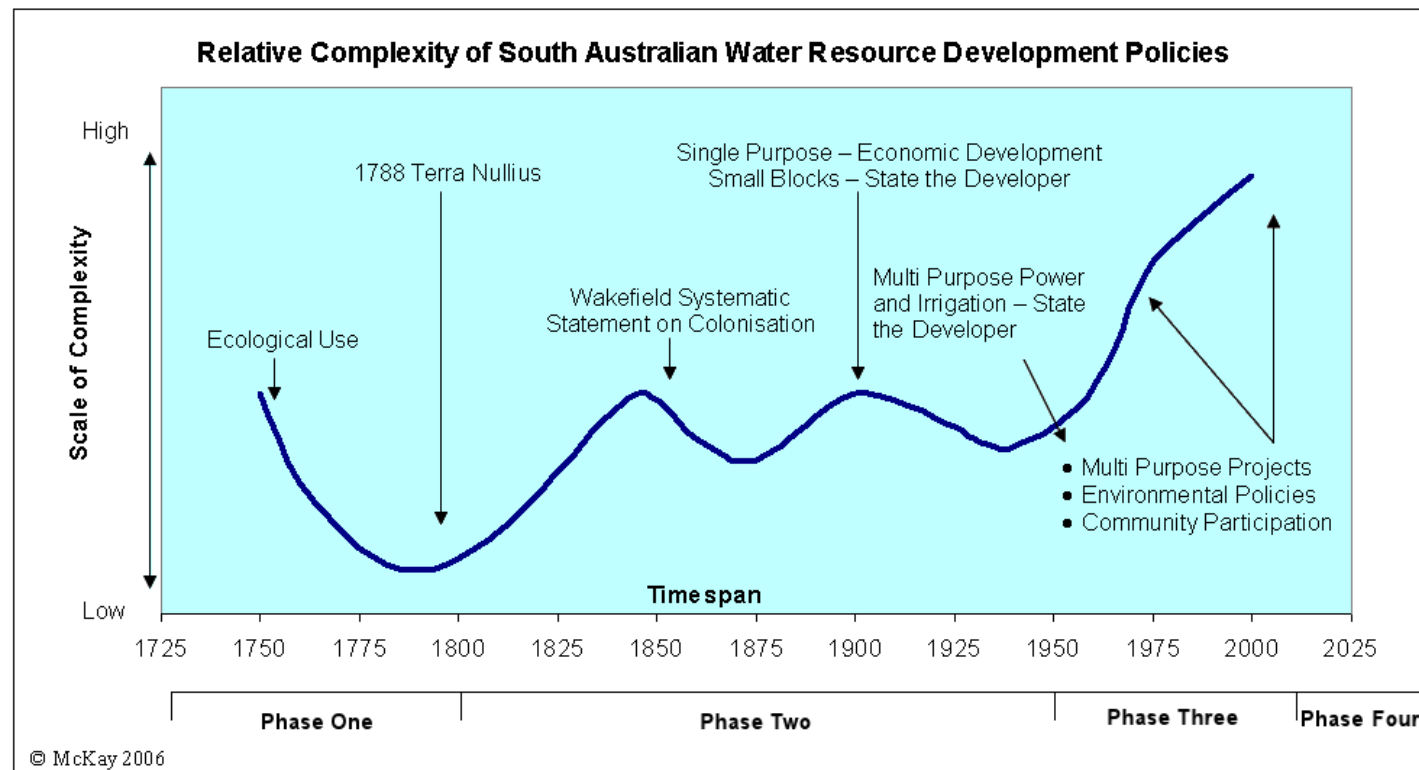


The Deputy PM in August 2004 stated in the introduction to the National Water Initiative that:

“Australians use 250,000 litres per year which is about 30% higher than the OECD average”

(Anderson MP 29 August 2004).

Australia – Water Policy Phases Relative Complexity of Policies



Australia's fourth Phase of Water Policy is still introspective, but it now incorporates community consultation

The Water Reform Process

- The reforms required a shift from the public provision of water to a mixed public and private regime.
- The previous water governance models were introspective and supply driven and structural.

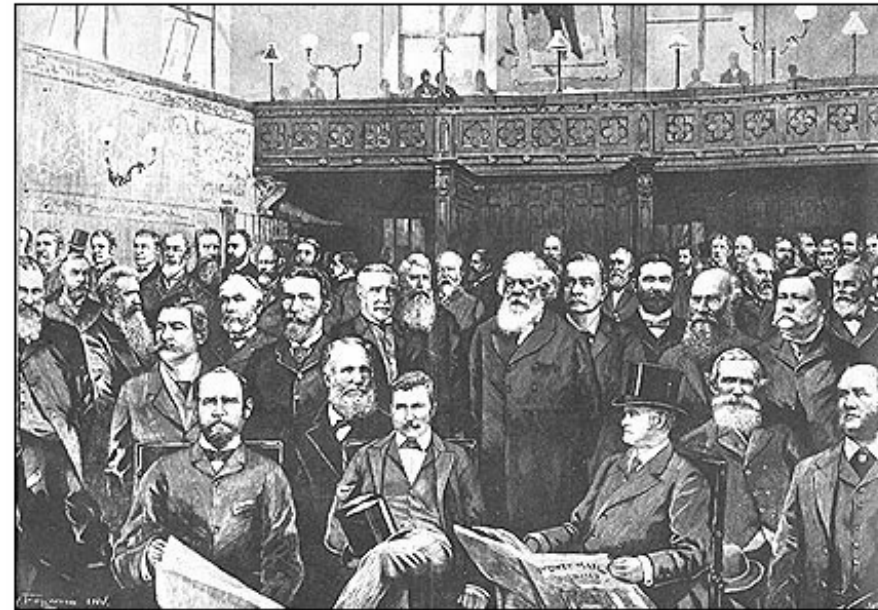


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Australia Federation

Much of the Institutional disparity entrenched within the Australian Water Supply Industry is a legacy of Australian Federation in 1901. Section 100 of the Australian Constitution states:

The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.



*Delegates at the National Convention in Sydney
02/03/1891 - 09/04/1891
Engraving from the Daily Mail
Image provided by the National Archive of Australia
NAA: A6180, 30/11/83/23*

Reasons for the Governance Regime Change

Several factors impelled the changes, including:

- International pressures & Treaties
- Internal issues (eg. blue green algal bloom in the Murray)
- Loss of community support for dams
- The need for full cost recovery for infrastructure

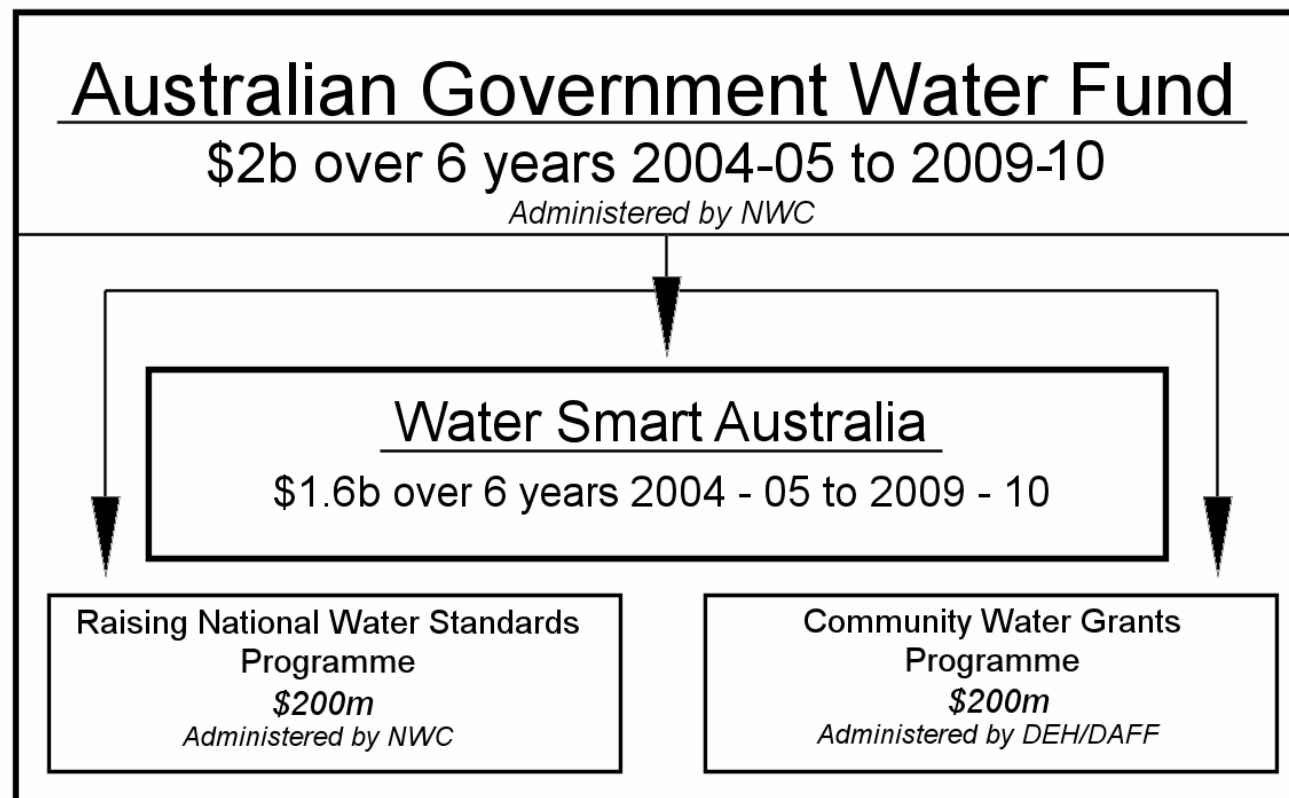
Facets of the new regimes

The need to achieve:

- Ecologically Sustainable Development
- Increased participation levels by the private sector and public
- The reforms require a mix of 'bottom up' and 'top down' approaches.
- Mechanisms to achieve this include communities drafting water sharing plans.
- These have led to increased complexity in institutional structures.

Funding of the Reform Process

The Federal Government has used financial persuasion over the States.



Source: Thompson 2005 (NWI Website)

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Outcomes

- CCWP&L Research funded by the Cooperative Research Centre for Irrigation Futures estimates that there are approximately 333 Water Supply Businesses in Australia
- They range from fully private companies to Government owned corporations
- There are 14 distinct types of Water Supply Businesses in Australia

Australia – Water Governance Structures

State	Number of Legal Types of WSBs	Number of WSBs
ACT	1	1
NSW	9	79
NT	1	1
QLD	7	115
SA	2	2
TAS	6	32
VIC	2	24
WA	5	22

Legal Types of Water Supply Businesses

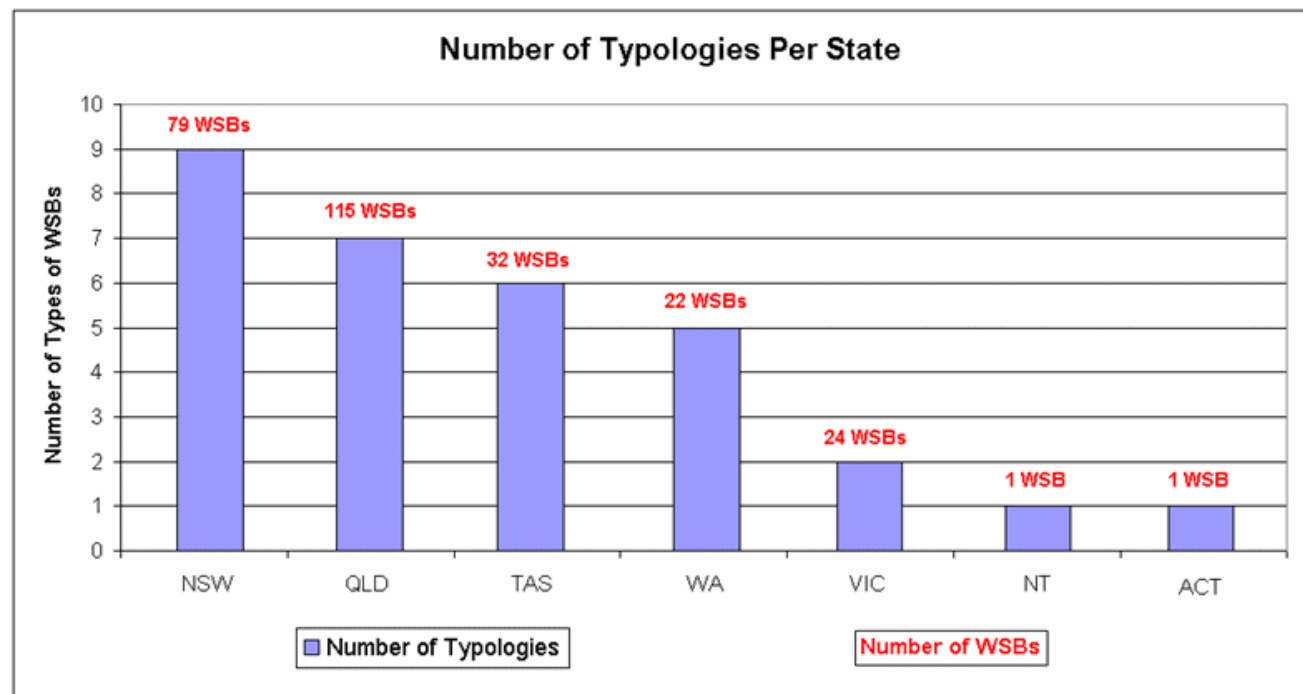
Local Government Regional Council (LGRC)
 Local Government Shire Council (LGSC)
 Local Government Town/City Council (LGCC)
 Local Government Owned Corporations (LGOC)
 Joint Local Government Organisation (JLGG)
 Water Boards (WB)
 Government Department (GD)
 Government Owned Corporation (GOC)
 Statutory Bodies (SB)
 Corporations Law Companies (CLC)
 Irrigation Trusts (IT)
 Undetermined (Und)
 Hybrid - SB/CLC
 Hybrid - IT/CLC

According to the Non-Major Urban Water Utilities - Queensland Report 2001 – 2002, by the Queensland Department of Natural Resources, Mines and Energy 2004 there are 16 specific governance types. CCWP&L research has determined that there are 14. This difference is largely due to rationalisation of the Water industry in the last five years and not differentiating between similar bodies eg. Rural Water Boards and Urban Water Boards.

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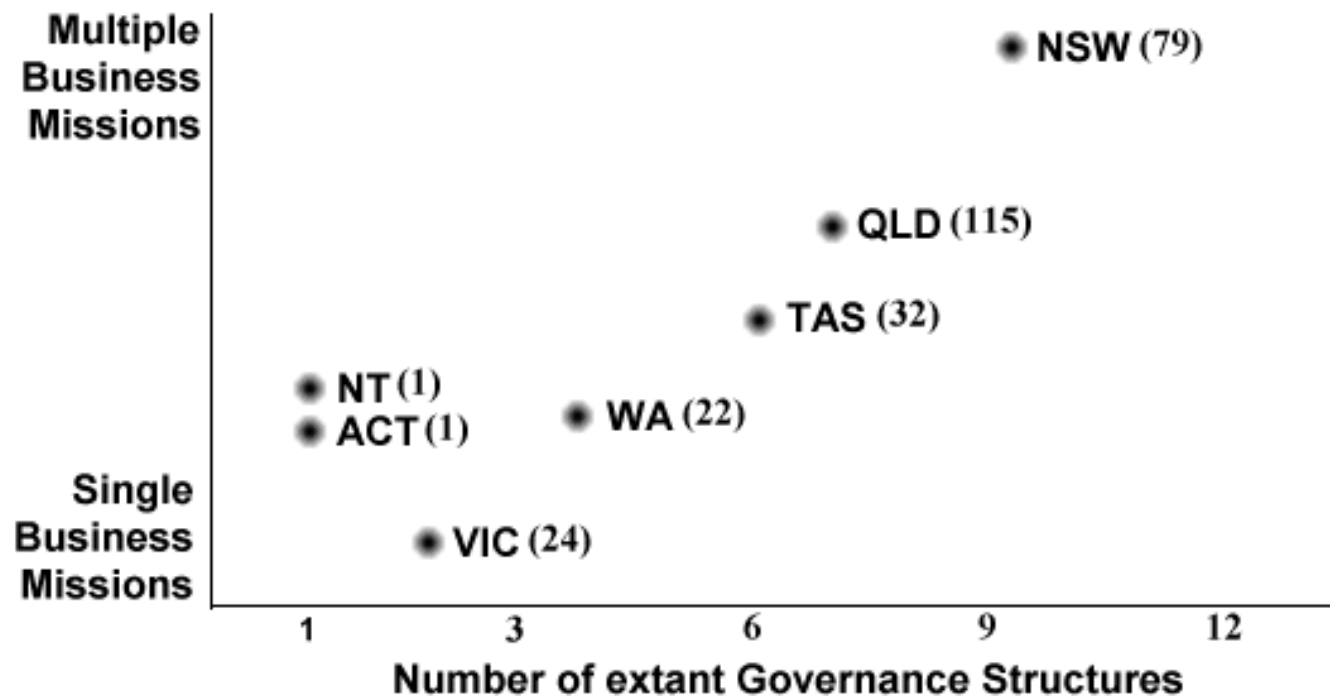
Australia – Legal Types of WSBs

- We have over 14 distinctly different types of Legal Types among Water Supply Businesses in Australia.
- Some are totally private – such as Murray Irrigation Limited – whereas others are Corporations or Government Owned.



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General Mission breadth of Water Supply Businesses by State



Many New Players, Many New Conflicts

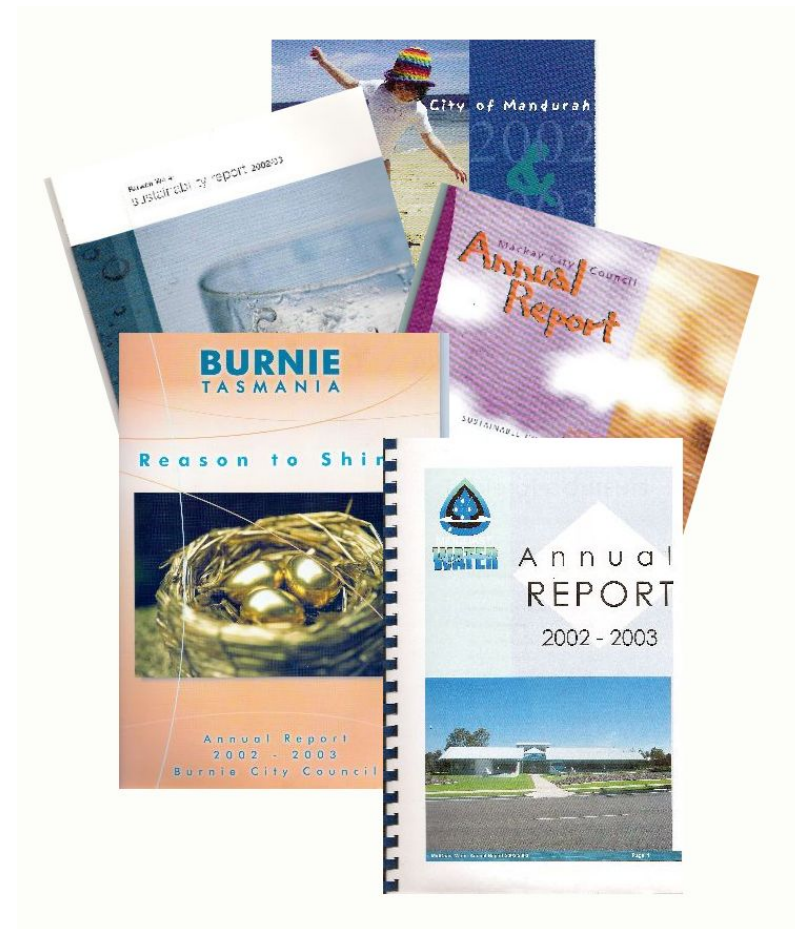
- It is important to record the feedback of customers to enable adaptive institutional management. (Walters and Holling, 1990).
- The change in regimes and policies will lead to conflict. Eg. in the rural sector, there have been reductions in water allocations and farmers now have a share of an available resource rather than a set fixed amount.
- ‘The Ashbourne case’. Victoria - Ashbourne case 2003 VSC 194, June. In this case the farmer challenged a clear law that imposed new regulations on water captured in farm dams - and lost.
- The environment is now acknowledged as a ‘major player’ in water allocation decisions and will increasingly be so in the future.

Methods

- The University of South Australia carried out research to assess whether Australian water institutions respond to rural and urban customer preferences.
- This research examined two associated and inter-related factors:
 - Identifying what water supply businesses focus on - in particular whether this includes ESD and to what type of information that they report to customers. This was achieved by extensive content assessment of publicly available Annual Reports.
 - Identifying what customers (rural and urban) perceive to be the main issues, how they have responded to the reforms, what information has been given to them, and what their preferences are. This was achieved with telephone surveys.

Content Analysis

- The Top Management Reports (Sections authored by CEOs, Managers, and/or Mayors) included within the annual reports of water supply businesses in all Australian States were Content Analysed.
- The contents were classified according to Table 1. A total of 63 distinct subjects were defined with these falling into 10 categories.



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Table 1. Content Categories & Elements for Content Analysis of Irrigation WSBs

Water Content & ESD	Non Water	Headings
Community/Stakeholder Consultation	Complaint – Govt. Policy (Non-Water)	Headings
Complaint – Govt. Policy (Water)	Conservation Projects (non Water)	
Conservation Projects (Water)	Impacting litigation – Not Water	Staff
Corporate Social responsibility	Infrastructure – Maint. (Non-Water)	Internal workplace culture
Current water sources	Infrastructure – New (Non-Water)	Staff
Demand Management - Current	Local Events (Non-Water)	
Demand Management - Future	Non-Water related projects/initiatives	Governance
Environment Plan	Praise – Govt. Policy (Non-Water)	Board of Management or Committees
ESD	Property Development levels	Meetings of Board or Committees
Global water issues	Regional Development	Reports on other side of business
Impacting litigation - Water		Review of policies
Infrastructure – Maint. (Water)	Acknowledgements & Graphics	Structure of WSB
Infrastructure – New (Water)	Acknowledgements	
Internal or External audit process	Awards from or to WSB	Current Drought
Investigation of other water	Biographies	Current Drought
Praise – Govt. Policy (Water)	Decorative photos or graphics	
Reducing greenhouse gas	Introduction	Mission / Vision.
Sustainability & water cycle strategy	Signature or identifying photo	Total Mission and or Vision
Sustainable policy unit	This Document	
Water Allocation	Visiting Dignitaries	Elections / Profits
Water Conservation - Agricultural		Elections
Water Conservation - Other	Customers	Impact of litigation
Water reuse or Grey water	Aboriginal & Torres Strait Islanders	Other financial details
Water sales	Community Education	Plans for the future
Water Technology	Customer billing	Profit or Budget Surplus
	Customer satisfaction	
	Customers	

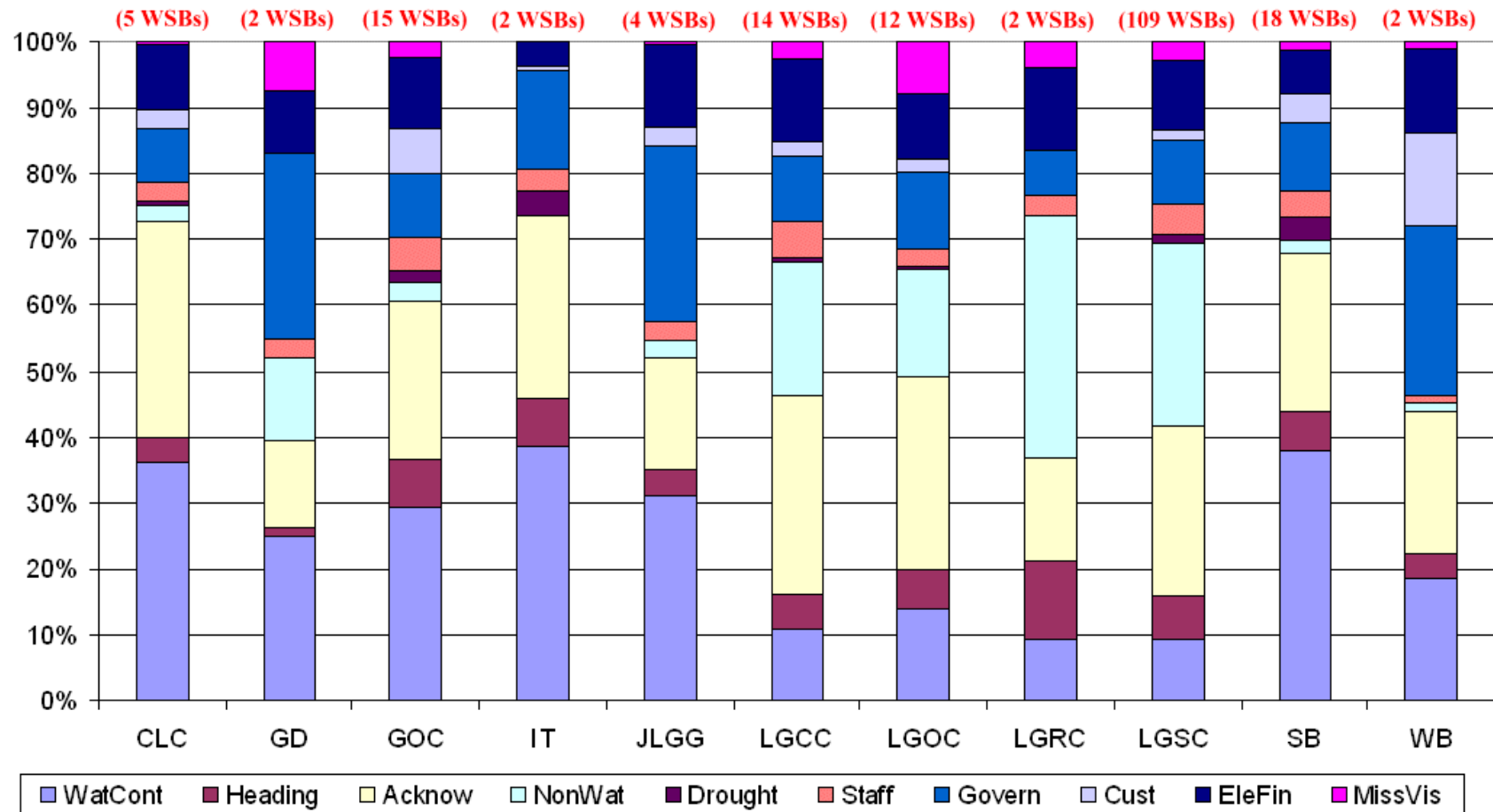
Mechanisms of Content Analysis

- Content Analysis is a technique where the content of a document is measured spatially and divided into the appropriate categories.
- The assumption is that Top Management Reports are written to emphasize what the authors deem to be laudable, important, and worthy of mention.
- The amount of space allocated to a subject indicates the relative importance of the subject matter.
- The content analysis was carried out manually by measuring (In centimeters) the amount of space dedicated to specific subjects. For example: *“1.3% of this document concerned non-water related infrastructure maintenance”*.
- The categories were defined after examining the Annual Reports and reflect a snapshot of the topics reported in the period 2002/2003.

Results of Content Analysis

- There is a clear difference between the institutional types in their reporting of ESD.
- The primary hurdle faced by many water supply businesses is the breadth of scope of ESD compliance.
- Whilst there is generally good will and a genuine recognition of the need to adopt an ESD paradigm, many organisations are struggling with change fatigue and with the challenges of how to measure the ESD concept.

Content Analysis Summary by Legal Governance Structure Types



Results of Content Analysis *continued*

- In Victoria, the reporting is more consistent and comprehensive than New South Wales and Queensland. This is most likely the product of the 24 bodies reporting to fewer regulatory bodies.
- In New South Wales and Queensland, the administrative arrangements of the bodies providing water supply are more complex with Local Government, General Purpose Councils, Special Purpose Councils (made up of a number of local councils) and dedicated Irrigation Water Supply Businesses all providing water.

Survey Of Rural And Urban Customers - 3 Case Studies

- Telephone surveys were conducted of water supply businesses customers rural Victoria and rural New South Wales and urban South Australia.
- The rural surveys (see Table 2) asked customers a set of questions on their attitudes to their local water supply business. The questions focused
 - Trust of the WSB
 - Perception of fairness of processes of the WSB
 - Ease of administrative processes of the WSB
 - Information to customers about changes to policies
 - Degree of local Co-operation
 - Fairness of the new policies
 - Fairness of new environmental water allocations



Rural Surveys – 187 Farmers in Victoria & New South Wales

- Telephone surveys of professional farmers owning or managing significant sized farm dams were undertaken in both Victoria and NSW.
- The telephone interview averaged 25 minutes in length and tested their response to the recent law reforms .

Survey Results for 187 Rural Water Customers

	Rural		
	VIC	NSW	
Yes	16%	31%	<i>Participation in Water Allocation Plan</i>
No	84%	69%	
<i>Willing to Participate</i>	30%	37%	
<i>Trust</i>	13%	35%	<i>Trust of WSB</i>
<i>Neutral</i>	18%	15%	
<i>Don't Trust</i>	46%	51%	
<i>Easy</i>	23%	27%	<i>Ease of Admin Procedures</i>
<i>Neutral</i>	46%	13%	
<i>Difficult</i>	30%	60%	
<i>Well Informed</i>	39%	45%	<i>Informed About Reforms</i>
<i>Neutral</i>	9%	7%	
<i>Not Well Informed</i>	52%	48%	
<i>Treated Fairly</i>	21%	30%	<i>New Water Policies are Fair</i>
<i>Neutral</i>	39%	28%	
<i>Not Treated Fairly</i>	17%	42%	

Survey Results for 187 Rural Water Customers

- In respect to the question of whether there is too much water allocated to the environment, over 50% in each state considered that not enough was being allocated for the environment! This clearly demonstrates the inclination of rural water customers to value ESD.

“Shareholders decided to re-invest SunWater’s 2002-03 dividend into water industry projects benefiting the environment and regional communities.”

SunWater Annual Report 2003-2004, Page 3.

Urban Survey – Use of Recycled Water for Non-Potable Purposes

- Urban customers using an innovative dual water supply system used recycled water for toilet flushing, garden watering and car washing.
- The questions used in the Survey were based on a range of studies and focused on issues of:
 - Trust
 - Perception of fairness
 - Communication and information provision
 - Satisfaction in customer relationships

Urban Survey – 162 Households at Mawson Lakes SA

- A total of 162 households were interviewed over the phone by professional interviewers.
- Interviews took 30 minutes to complete. This survey was conducted after the use of recycled water had commenced.



Survey Results for 162 Urban Customers at Mawson Lakes

<i>Trust</i>	64%	<i>Trust in WSB</i>
<i>Neutral</i>	27%	
<i>Don't Trust</i>	9%	
<i>Well Informed</i>	70%	<i>Informed about System</i>
<i>Neutral</i>	21%	
<i>Not Well Informed</i>	9%	
<i>Pricing is Fair</i>	24%	<i>Pricing Structure is Fair</i>
<i>Neutral</i>	32%	
<i>Pricing is Not Fair</i>	44%	
<i>Treated Fairly</i>	68%	<i>Treated Fairly</i>
<i>Neutral</i>	22%	
<i>Not Treated Fairly</i>	10%	

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Results for Urban Survey

- The results for the survey of the urban population (as shown in table 4) indicate there is significant trust in the water authority, the respondents feel well informed about the dual water supply system (delivering recycled water), and the majority perceive that they have been treated fairly in the process relating to the recycled water system.

Table 4. Rural & Urban Users - Issues

	Rural		Urban	
	VIC	NSW	SA	
<i>Treated Fairly</i>	21%	30%	68%	Treatment
<i>Neutral</i>	39%	28%	22%	
<i>Not Treated Fairly</i>	17%	42%	10%	
<i>Trust</i>	13%	35%	64%	Trust
<i>Neutral</i>	18%	15%	27%	
<i>Don't Trust</i>	46%	51%	9%	
<i>Well Informed</i>	39%	45%	70%	Informed
<i>Neutral</i>	9%	7%	21%	
<i>Not Well Informed</i>	52%	48%	9%	

Conclusions

- The multiple organisational structures cause problems.
- The coverage of issues varies with the organisational type.
- The organisations as a whole report on a set of issues which reflect an external focus.
- The introspective nature of the water supply businesses.
- Farmers in Victoria and NSW had positive responses to their local organisation although they were not very trusting nor were they convinced that they were well informed by the local body about issues.
- The independent variables of gender, education and income were largely unrelated to their perception of trust, fairness or others issues of local water policy.
- The WSBs in the rural areas of Victoria and NSW were not trusted generally by most respondents to the survey. Trust was not related to fairness in processes. So what drives trust? This is clearly an area in need of further research.
- The next step would be to identify what they want in order to increase trust. For example, the content analysis has shown that while ESD is an important issue to the WSBs, it is not well focused generally. Yet, at the same time, the surveys showed that the water customers clearly value ESD – this was particularly shown by the rural customers' overwhelming response where they believed that not enough water was being allocated to the environment.

Conclusions *continued*

- To rectify this situation, there is a clear need to improve the trust and attitude of water customers towards the WSBs, together with better communication between all parties involved.
- For the urban dwellers gender had an influence on reactions to policy but fairness and trust were independent.
- There was a high degree of trust of the local body and perception of being well informed by them.
- It is clear from the results presented in tables 2 and 3 that there are distinctly different levels of trust, perceived information and fairness between the urban and rural consumers surveyed.
- This may be related to the fact that the rural consumers depend on the water for their economic livelihood (business) whereas the urban customers predominantly rely on water supply for domestic purposes only.
- Future research is needed to establish why these differences exist, and may provide an insight for policy development.

Acknowledgments

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- Essential research assistance was provided by Adam Gray and Arthur Spassis (both employed as Research Assistants in the Centre for Comparative Water Policies & Laws) and we benefited enormously from help given by Chris Davis (CEO of the Australian Water Association), the Irrigation Association of Australia, Chris Marles (SAWater), and Professor Gus Geursen (Head of School of Marketing).



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*Thank you for your
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