

**Options paper
on the Inquiry into secure and sustainable
urban water supply and sewerage services
for non-metropolitan NSW**

Prepared for the

**Local Government and Shires
Associations
New South Wales
&
NSW Water Directorate**

By the

**Institute for Sustainable Futures
University of Technology, Sydney**

Chris Davis
Michael Paddon
Joanne Chong

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1) Introduction

A State-wide inquiry into secure and sustainable urban water supply and sewerage services for non-metropolitan NSW has been initiated. The objective is “to identify the most effective institutional, regulatory and governance arrangements for the long term provision of water supply and sewerage services in county NSW,” and to “ensure that these arrangements are cost-effective, financially viable, sustainable, optimise whole-of-community outcomes, and achieve integrated water cycle management.” The full terms of reference are in Appendix A.

This report aims to advise members of LGSA of the range of options available; examine how they meet the nominated objectives specified in the Inquiry’s terms of reference (ToR); highlight some additional principles; and to commend those options which may be practical for local authorities across NSW – noting that, given the diversity of circumstances, some options may suit some councils better than others.

In meetings and briefings about the Inquiry, the NSW Minister for Water Utilities, the Hon Nathan Rees, has explicitly stated that, “the status quo is not an option,” implying that continuing to have 107 separate water supply and sewerage entities operating across the state will not be countenanced. This report takes that as a given, but in the knowledge that some councils may meet criteria for viable and effective water businesses, depending on their local circumstances, so might continue with little change. The status quo is thus included as a legitimate option in this report.

In view of the sheer geographic size of NSW, the fact that there are currently so many water and sewerage providers involved, and the diversity of physical, demographic and economic situations that apply; it seems unlikely that any one option will suit all circumstances State-wide. This report is based on the premise that there may well be two or more options which are ultimately implemented in parallel, to suit local circumstances.

This report does not pretend to deal systematically with all the issues raised in the Discussion Paper released with the ToR; but it does offer an overview of the alternative institutional/organisational arrangements which are likely to be feasible and makes an assessment of each of them.

The report represents advice that is before the working group formed by the Local Government and Shires Associations of NSW and the NSW Water Directorate to respond to the Inquiry. It does not necessarily represent the endorsed position of the LGSA or the NSW Water Directorate.

2) Background information

The terms of reference for this Inquiry allude to various factors which should be considered. Some of those factors are addressed explicitly in the analysis of options, but others are contextual across the State and are discussed here to provide critical background information.

- a) Historical structure of the industry: NSW has a history of individual councils providing their own water and sewerage services, apart from the special cases of Sydney, Newcastle and Broken Hill, which were established as State-owned enterprises from an early stage. There were, quite recently, 121 local water utilities, but some amalgamations brought the number down to the current 107 for non-metropolitan areas. Although many councils have set up water and sewerage services as separate business units, those water and sewerage businesses have become an important part of the fabric of those councils' resources, not to be lightly excised. In particular, staff resources and expertise could be lost.
- b) Industry performance has been variable, as evidenced by the annual performance reports published by the NSW Department of Water and Energy (DWE). In the Discussion Paper for this Inquiry, outline statistics for performance of LWUs against the *Guidelines for Best Practice* are provided, and they imply that there is a direct correlation between the size of the business and its ability to achieve performance goals. Clearly, that is an oversimplification, since factors such as water sources and population density can have greater impacts than size as such. However it is possible that some characteristics related to a size of a water service provider could also be linked to the ability to meet various organisational goals. There are, of course, many other factors in play. Furthermore, the performance indicators themselves are unlikely, alone, to illustrate the exact nature of performance or patterns between various aspects of performance, and council characteristics.
- c) Current and future challenges are many, and they include: climate change, a skills shortage; increasingly stringent environmental and public health regulation; declining or static population in some areas and rapid populations growth in others; financial viability; technical and management capacity to address increasing complexity; dealing with the need for better integrated water cycle management; and competition for water. Overall, operating water and sewerage businesses can be expected to become more difficult in future, rather than easier, so the level of challenge will increase. Emerging trends are moving beyond Integrated Water Cycle Management (IWCM) towards Integrated Resource Planning (IRP) and the Fourth Generation of urban water management, which places increasing emphasis on life cycle assessment of assets and processes and risk management as it applies to financial, and reputational outcomes, as well as to human and environmental health. It also implies a more integrated and holistic approach to all facets of urban management.
- d) Implications for both water provider business and local council operational viability could be quite profound, especially if a dysfunctional arrangement is adopted. References in the Inquiry TOR, and in Ministerial comments, to self-sufficiency, imply that future water and sewerage businesses will have to be viable without State support, in the form of subsidies or other resources from the State Government. Tariff increases can help redress the balance for a water business which is not financially viable. Sometimes business improvement strategies can help too, but local circumstances will dictate what is achievable.

- e) Often, though, there are other, local factors which would help or hinder the push for economic sustainability. It is important to note that those jurisdictions which have comprehensive water and sewerage agencies (WA, SA, NT & ACT) achieve a positive rate of return by using metropolitan areas to cross subsidise rural and smaller regional communities. Given NSW's extant institutional arrangements, such an arrangement is not really an option, since metropolitan areas are already serviced by long-established state-owned enterprises.
- f) The tapestry of different socio-economic characteristics, pressures and vulnerabilities of local council communities across NSW is richly varied, so it is not practical to generalise about aspects of reform. The old cliché about "horses for courses" applies, and it seems likely that different options may suit different locations; which implies a period of detailed assessment and negotiation to reach consensus, or at least a degree of accommodation.

3) Assessment framework

The terms of reference for this inquiry specify a number of expected objectives for the overall arrangements, as well as for individual water service providers. There is a strong emphasis on whole-of-community outcomes, cost-effectiveness, sustainability, financial viability and self-sufficiency. This report addresses only urban water, sewerage and stormwater services in regional NSW; it does not consider irrigation supplies or bulk water deliveries. A typical urban water system would include all steps from “catchment to tap,” i.e. dams or river extraction works; raw water storage; water treatment; local reservoirs; distribution; sewerage; sewage treatment; reuse or disposal; stormwater collection and use or management.

The principles alluded to in the Terms of Reference are discussed below.

Whole of community outcomes

“Optimising whole-of-community outcomes” and “cost-effectiveness” are common goals of many reform and policy processes. In practice, these concepts embrace the overall impacts on society – defined at local, national, and global scales – to form the basis for decision-making.

There are various assessment frameworks that have been applied which aim to reflect the general principles. Examples and features include:

- **Triple bottom line:** economic, environmental and social impacts. Although “economic” in its broadest sense includes environmental and social considerations, these categories are intended to ensure that environmental and social outcomes that are not valued in markets are considered in decision making.
- **Stakeholder identification, community consultation and community engagement:** The impacts considered should include those affecting as wide a range of stakeholders as possible; not just limiting assessment of costs to financial costs incurred by the water service provider or local council.
- **Aggregation and distribution:** Different arrangements will result in different impacts for various stakeholders. A key decision metric is often the net (aggregate) benefit to the community. However, this is not necessarily the overriding criterion – distribution of impacts is also important for transparent and equitable decision-making.
- **Sustainability:** Social and environmental sustainability. These include inter-generational considerations; the principle of living today in a manner which does not impinge on the ability of future generations (or the environment) to maintain the same quality of life.

Fourth generation of water management

In terms of urban water planning and management, the principles and emerging practices of the “Fourth Generation of Water Management” can also help inform assessment of specific arrangement for water service provision. A separate paper by Davis (2008) details the evolution of urban water management, and the key attributes of Fourth Generation management include:

- Integrated resource planning (IRP), across all resources including, but beyond water - energy, transport, materials.
- Life cycle analysis of materials, equipment and processes, which measures the net energy and other resource consumption associated with any particular choice; aiming to achieve an affordable result with the least environmental and energy impact.
- Considering the water supply, sewerage and stormwater as integrated systems and thus recognising the potential for distributed (i.e. decentralised) infrastructure. This means smaller, neighbourhood facilities, located close to the source of wastewater and runoff, and also close to the demand, leading to smaller pipes, tanks and treatment systems.
- Community engagement, in a way which empowers members of the community to participate meaningfully in establishing values and goals, assessing alternatives and being kept informed on the progress of decisions, directions and projects.

Institutional and management arrangements are perceived by practitioners as an absolute barrier to the adoption of practices which can enable a “water sensitive city” (Brown et al, 2007). In this context, a ”water sensitive city” would be effectively one which implemented Fourth Generation Urban Water Management.

A book by Amato and Conti (2005) reviewed research into the economics of the water industry and it showed the considerable variation in outcomes, depending on local circumstances, as well as the general lack of consistency in correlations. For instance, they noted that, “cost savings could therefore be achieved through prudent mergers between nearby utilities.” They found weak correlations in economies of scale, but noted a diseconomy of scale for utilities serving more than a million people. Based on empirical evidence, they noted, “there is some mild support for the existence of economies of vertical integration in the water supply industry, while a clear picture does not seem to emerge for the joint management of water and sewerage services. Nevertheless, the joint management of water and sewerage can be justified with the fact that it allows for a more effective environmental policy at river basin level.” Addressing the extent to which consolidation should be pursued, they said, “Even if there is a large consensus on the necessity of reducing substantially the number of operators through the merger of utilities operating in nearby areas, it is not so clear how far this process of consolidation should go.” Amato and Conti’s work was published in Italy and drew heavily on European research, but included English, Japanese and US studies as well. They did offer the view that a logical business size for water would cover a “province,” undoubtedly a unit a lot smaller than an Australian state and probably analogous to a compact County Council. Vertical integration implies one business providing all services, from water collection, treatment and distribution, through to retail connection to customers. For most NSW LWUs, of course, vertical integration is the norm, but some countries tend towards disaggregated businesses, which is discussed as a possible option, later in this report.

Amato and Conti could find only limited empirical evidence for economies of scope (i.e. having only one business to provide water supply, sewerage and stormwater services), the synergies between scope economies and the benefits of unified management across urban water components (water, sewerage and stormwater) and critical, related factors: landuse

planning, roads and catchment management, must be positive to deliver triple bottom line results, in particular, environmental and economic.

Apart from economies and benefits of scope across the delivery of water services, local councils are significant water users in their own right, from parks and playing fields, through to swimming pools, depots and civic buildings. An integrated business, embracing both water (in the broad sense) and community amenities, ensures that initiatives like BASIX and water sensitive urban design will be deployed in a collaborative way with water services to ensure achievement of Fourth Generation water management.

Assessment criteria

Drawing on the objectives specified in the terms of reference and the principles discussed above, there are four key dimensions of outcomes that could be affected by different water service provision arrangements:

- A) The business viability and sustainability of the water service provider
- B) Remaining local council operations – apart from water services
- C) The impact on local and regional communities
- D) Opportunities for integrating resource planning, management and operations, for sustainable, whole-of-community, outcomes. This includes integrated resource planning, as well as integration with general purpose council functions.

These assessment criteria are detailed below:

A) Water service business viability and sustainability

<p>TOR Objectives for arrangement:</p> <ul style="list-style-type: none"> • cost-effective • financially viable 	<p><i>Water business viability and sustainability</i> also relates to potential for meeting service provider standards as specified in TOR:</p> <ul style="list-style-type: none"> • financial self-sufficiency • compliance with health and environmental standards • respond and plan in advance 	<p><i>Triple bottom line:</i> Economic</p>
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There is a strong emphasis in the terms of reference for water service providers to be financially self-sufficient. However, conventional financial indicators of economic performance (e.g. ROA & economic real rate of return) do not, by themselves, capture the actual performance and potential for business viability and sustainability.

Indicators which would provide greater richness and relevance to assessment could include:

- infrastructure renewal gaps and maintenance gaps
- debt
- revenue raising capacity
- ability to service growth
- projected operating surplus
- technical and professional capacity for strategic planning.

Different arrangements will affect the potential for water service business viability and sustainability in various ways, including:

- Skill level, appropriate local knowledge, and hence productivity of staff providing water services (engineers, accountants, planners)
- Improved assessment, management, asset valuation, and planning for infrastructure maintenance, renewal and enhancement, taking into account the whole-of-life-cycle of assets
- Optimising tariffs structures and levels, in light of revenue, dividends, demand management and equity considerations.
- Transition issues
- Revenue raising capacity.

B) Remaining local council operations – apart from water services

<p>TOR Objectives for arrangement:</p> <ul style="list-style-type: none"> • cost-effective - including costs on local councils • whole-of-community outcomes – including local councils and local employment • sustainability - ability of local council to manage activities for sustainability 	<p><i>Triple bottom line:</i> Economic, Social, Environmental</p>
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Having water operations as part of council business provides a critical mass of human and physical resources which are mutually reinforcing. The work interest for an engineer in a small council is enhanced by having water as part of the service. Loss of a water service function makes the council vulnerable to loss of key staff for more challenging roles. Similar issues face other professional and trades staff in small councils. Loss of council’s water service function might also have a negative impact on local employment.

C) The impact on local and regional communities

<p>TOR Objectives for arrangements:</p> <ul style="list-style-type: none"> • cost-effective - taking into account impacts on local communities • whole-of-community outcomes – potential for community representation • sustainable - social and environmental sustainability 	<p><i>Triple bottom line:</i> Economic, Social, Environmental</p>
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Small communities can be quite seriously impacted by the loss of local jobs and activities, as there is a knock-on effect from the diminished activity, in everything from schooling and housing to the viability of local businesses and services. Having the locus of control for water operations move out of town also impacts on the community feeling of empowerment, so community members feel more confident if they know their water systems are locally managed. Although not strictly rational, the fact that assets are owned by a local community is reassuring. A factor not often acknowledged well enough is the impact during a transitional period. Current, major changes in SE Queensland’s water structure have, for example, placed employees in the region under great stress and uncertainty.

D Integrated resource planning and management

<p>TOR Objectives for arrangement:</p> <ul style="list-style-type: none"> • cost-effective • whole-of-community outcomes - through integration of service planning and management, • sustainable - longer-term integrated planning, • IWCM. 	<p><i>Integrated resource planning and management</i> also relates to potential for meeting service provider standards as specified in TOR:</p> <ul style="list-style-type: none"> • compliance with health and environmental standards • respond and plan in advance • implement cost-effective service standards 	<p><i>Triple bottom line:</i> Economic, Social, Environmental</p>
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Each interface between one entity and another in the whole spectrum of planning for and providing community services and activities creates a potential barrier to achieving fully integrated service provision; IWCM; holistic planning including landuse planning and strategic community planning; and all the other desirable goals associated with Fourth Generation Urban Water Management.

4) Range of options canvassed

The possible options for rationalising NSW regional and rural water businesses are set out in Table 1 below. The option of privatised businesses has not been included, on the basis that councils and communities are opposed to full privatisation of essential/strategic infrastructure. There is a cultural dimension involved, in that water has more emotive connotations than other utilities. Moreover, the regulatory framework required to ensure public health, environmental outcomes and levels of service for water businesses entirely in private hands would be substantial, increasing transaction costs considerably.

Table 1 – The range of options for rationalising NSW LWUs

#	Option	Outlines and examples
1	Regional “mandatory” alliance; i.e. pooling required, but nature of arrangements left to councils to resolve	LWUs must join alliances and pool resources. An example is the Weight of Loads Groups which operate among several dozen councils in NSW.
2	County Council – service provision only	Assets owned by councils, but operation provided by a council-owned and controlled entity under Local Government Act.
3	County Council – including asset ownership	As for 2, but County Council owns the assets.
4	Council-owned regional water corporation	As for 3, but a corporatised structure. Could have board members representing councils or nominated by both State and councils. The new Gosford-Wyong utility is an example of a State-dominated model.
5	State-owned regional water corporation	As for 4, but State is the only shareholder. The main example is Victoria, with 15 regional corporations.
6	Regional council aligned to catchment or sub-catchment	Amalgamated councils, operating over larger areas, but full service structure (water, sewerage and all other general purpose functions). This has been implemented in various locations around Australia.
7	Single, State-wide agency	An extreme version of 5, with just one agency for the whole of regional NSW. This would be similar to how WA, NT, SA and ACT operate. It could be a State department or a corporatised entity.
8	Disaggregated model – bulk supply, distribution and retail (i.e. the opposite of vertical integration)	Vertically disaggregated organisations, each dealing with part of the cycle. Victoria has separated bulk and wholesale suppliers for Melbourne, while Qld is setting up bulk supply; bulk distribution; grid management; and retailers for SEQ.
9	Status quo	Many independent, council-based water utilities; i.e. no change.

Among the nine options identified, several have attributes in common, so it is important to note that, although governance may differ between one option and another, many other attributes may be the same or similar. As well as broad-brush attributes for the various options, there are also some specific features which differentiate some options, while grouping others. These are set out in Table 2 on the next page.

Table 2 – Key attributes of the options considered

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9
	“Mandatory” Alliance	County Council – ops only	County Council – owns assets	Council-owned regional corporation	State-owned regional corporation	Regional Council – catchment-based	State-wide agency	Disaggregated model	Status quo
Provision of Services	Mixture of councils and pooled staff	New county councils	New county councils	New regional entity	New regional entity	New, larger LWU / council	New, state-wide entity	Each delivered by a different business	Each council delivers its own services
Asset Ownership	Existing Councils	Existing councils	New county councils	New regional entity	State Government	New Council	New agency	Each business owns its assets, or existing Councils retain	Councils own their own infrastructure
Number to service NSW¹	Potentially 10 - 20	To be determined but likely to be 10 - 30	To be determined but likely to be 10 - 30	Depends on negotiation, but perhaps 10 - 30	State influence would probably constrain to 10 - 15 range	10 – 20, but 13 would align with CMAs, which are catchment-based	1	Could be State-wide, or regional. Perhaps 6-8 different businesses	107 maximum
Organisational Structure	MOU among participating councils. Small staff resource to supplement local resources	New county council under Local Government Act	New county council under Local Government Act	Corporation with board either (a) nominated by Councils, or (b) appointed by State	Corporation: Board appointed by State Government	General purpose councils under Local Government Act	Could be a Corporation or a State Government Department, most likely the former	State-owned corporations, each delivering one service, e.g. bulk water, deliveries, retailing.	Councils in term of Local Government Act

Notes: 1. Apart from 7 and, probably, 8, the options are not mutually exclusive, so different combinations could co-exist, and that could affect total number of businesses

Local council and service characteristics

The implications and appropriateness of a given model or option will depend on which councils join together. It is not a “one size fits all” situation, and detailed consideration of many factors will be essential to reach the best outcomes.

Key characteristics of communities and their services include:

- Total population
- Population density
- Nature of current water use (e.g. size of major users; efficiency measures to date)
- Council skill base
- Geographical remoteness
- Attributes of neighbouring councils which might be engaged in collaboration/

The scope of this report does not allow for a detailed analysis of community attributes, but is important to note that each regional arrangement will have to be weighed up in terms of the characteristics of both the communities involved, their relative sizes, distance apart, and all the technical factors of the water systems, as well as the factors listed above.

It is an over-simplification to characterise all small councils or water businesses as under-resourced and larger ones as well resourced, since many other attributes contribute to viability. However, current trends towards more stringent quality standards and regulation imply the need for an increasingly professional and well resourced staff or a contracting-in of skills; beyond what is accessible or affordable to small LWUs.

5) Option analysis and outcome

The options have been assessed individually on the four dimensions which were described above, and those analyses are provided below. Then, a table of opportunities and risks is provided to highlight differences and distinctive points.

1. “Mandatory” regional alliances

The regional mandatory alliance is a *minimalist* option, in that it imposes the least change on participating LWUs, which could retain ownership of assets; conduct local operations; and make local decisions. An agreed scope of pooled activities would be set up centrally and participants simply pay pro rata for their share of the services. This sort of alliance must be mandatory, or it risks falling apart in the face of difficulties or a lack of interest. On the chart, it can be seen that Option 1 leans towards delivering a restricted range of services, since member councils would deliver the balance themselves. That it not pre-ordained, but seems likely. Option 1 would help to provide crucial, pooled professional and technical resources, for planning, operations and perhaps design. There could be some economies of scale but, for LWUs currently under-resourced, the necessary funds to improve net resources would have to come from higher tariffs and other system improvements. Rating the dimensions and perspectives:

Option 1	Regional mandatory alliance
A) Business	A smaller business for the footprint than any other option, but sustained by member contributions.
B) Council	Council can retain most staff in water and rely on alliance for pooled resources – probably a net positive for council operation
C) Community	No major impact expected on communities. Some would house extra staff and facilities; others would see no change. Locus of control would remain local.
D) Integration	Good integration. Councils would have control over planning and operation of water and sewerage services which would be integrated into strategic planning and operations for councils’ general purpose functions.

2. County Councils – service provision only

The County Council option, with assets retained by member councils, but services all provided by the County Council, can be set up in terms of the Local Government Act. Although owned by, and governed by, the partner councils through councillor representation on the board, the County Council is able to focus all its attention on delivery of water-related services. It is better placed than an alliance to create a viable business; not badly placed to achieve reasonable integration with other council activities; and retains a key link to its constituent communities.

The interface between the County Council and councils as regards capital works could be problematic, as perverse incentives might be created and the balance between capital expenditure, planning and asset management might not be ensured. This sort of problem caused the ‘Big Pong’ at Bolivar sewage treatment plant in Adelaide, when the private operator and the asset owner had not worked out proper arrangements to deal with asset maintenance and renewals.

Option 2	County Councils – service provision only
A) Business	A County Council would be a viable, effective business, with a clear focus on its deliverables.
B) Council	Although councils would lose water staff, they would exercise control through representation on board.
C) Community	Head office location would benefit one community, while others would lose some people to the town hosting the headquarters.
D) Integration	Reasonable integration capability, since link between Councils and County Council should be quite strong. Planning functions should be seamlessly integrated, but asset maintenance and replacement can be more difficult to resolve.

3. County Councils – including asset ownership

This option differs from Option 2 in that the County Council becomes the asset owner, establishing it more securely as the key water entity. Midcoast Water is an example of this arrangement. This option has a significant advantage over 2 because there is no risk of perverse incentives to over- or under-spend on capital. Asset management is now a crucial function for a water business, and having ownership residing with someone than the operator is a challenge.

Option 3	County Council – owning assets
A) Business	As operator and asset owner, this County Council option would create a stronger business than Option 2.
B) Council	Council would incur the same personnel losses as for Option 2, plus the loss of assets. This could be seen as a loss of control, but it would also mean lesser liability for managing assets. However, constituent councils would be the “owner” of the county council and so indirectly owner of the assets. Local control would be ensured through councillor representation on the board. The county council could pay dividends to the constituent councils.
C) Community	Effectively the same community impact as for Option 2.
D) Integration	Better integration potential than Option 2, since water and sewerage asset management would be in the hands of the operator, removing potential for perverse outcomes on capital expenditure and maintenance.

4. Council-owned regional water corporations

Not very different from 4, since a similar range of council partners could come together and establish a corporation. Instead of falling under the Local Government Act, the body would be a company limited by guarantee under Corporations Law. If, as is the case with Gosford-Wyong in the Central Coast Corporation Act (NSW) 2006, the majority of board members are appointed by the State Government, then this option effectively takes the reins away from the constituent councils. If all or most of the board members are appointed by the owning councils, then control remains in local hands. In other respects, this option is very similar to 4. The crucial difference lies in board representation: a council-controlled variant provides greater local control.

Option 4	Council owned regional water corporation
A) Business	Corporations Law provides a strong governance platform and the business should be viable, not dissimilar to Option 3.
B) Council	Councils would have similar outcomes to Option 3, but, if a majority of board members was to be appointed by Government, as for Gosford-Wyong, there would be a net loss of control.
C) Community	Community impact very similar to Option 3.
D) Integration	Integration potential would be reasonable; better if councils controlled board; perhaps less if Government nominated majority.

5. State-owned regional water corporations

This option is effectively what has been implemented in Victoria, where 15 regional, state-owned corporations service the State. Functionally, this could be identical to Option 4, but it would be clearly a State-owned corporation and thus the board members would be selected by the Government. In Victoria, boards are nominally skills based, and some are, but there is a feeling that there is often a political element to appointments. The same situation would apply in NSW if this option were to be implemented. The major point of differentiation between this option and 4 would be the loss of local control.

Option 5	State-owned regional corporations
A) Business	As a business, this one should be the same as for Option 4. Viable if large enough. Potential for the State to demand dividends, as it does from Metropolitan water businesses.
B) Council	Practically, very similar to options 3 and 4, but a loss of local control would be felt. Also, there would be a loss of revenue stream for councils.
C) Community	Community impacts as for Options 3 and 4, but loss of engagement could occur, with a concomitant loss of confidence.
D) Integration	Less integration potential than the other regional options, since councils would have no control over planning, capital or operations of water and sewerage business, and the business would have no direct link to councils' strategic planning and operation of its other, general purpose, functions.

6. Regional council aligned to catchment or sub-catchment

It is not the function of this report to address council amalgamations, but the impact of removing water functions from councils and consolidating them in a bigger entity could be profound in some cases, so it is necessary to discuss the option of keeping the two together by amalgamating councils – the debate is ultimately for councils to conduct. This structure would be arrived at by amalgamating councils which fall within a given environmental catchment or sub-catchment and, where possible, aligning the boundaries to match the catchment’s watershed lines. This option has two major advantages over the others: it retains all water-impacting functions under one roof (maximising the potential for achieving integrated water cycle management); and it allows local control and ownership of the business, under the banner of a general purpose council. This should provide economy of scope for the parent councils. It needs to be noted that there are already “amalgamated council/LWUs” created by previous amalgamation processes.

Option 6	Regional councils aligned to catchment
A) Business	Provided the amalgamated council was large enough, this would be as viable a business as options 3, to 5. The lack of focus compared to water-only businesses would be offset by the comprehensive and integrated nature of the council’s planning and service delivery functions.
B) Council	The council should be larger and stronger, exercising full control over all its services; especially landuse planning. However, alignment to environmental catchments might not take account of structure and size of communities of interest; i.e. “social, economic, transport, landuse catchments etc”.
C) Community	There should be no penalties on the community, and engagement through local ward councilors should be strong. Brisbane was an example of this structure, until the recent changes in SE Queensland institutional arrangements. There is some concern that councils could be too big for functional local decision making, utilisation of local knowledge, and localised provision of general purpose functions.
D) Integration	Offers the best prospects for integration, since council will control all water and related activities in its jurisdiction and can ensure coordination.

7. Regional, NSW-wide agency, ‘Country Water’

This option could be a single, State-owned corporation, or a Government Department charged with delivering water services. This is effectively one end of the spectrum of Option 5. Unlike those jurisdictions (WA, SA, NT, ACT) which cover all communities (with some minor exceptions), this option, for NSW, would not enable the large population centres to cross subsidise small, regional ones; since metropolitan areas are already serviced by corporatised water businesses. Depending on how decentralised staffing and services were, this option could see a concentration of resources in one or two centres, at the expense of employment and activity in all the others. It would thus also represent the option most divorced from local inputs; while the sheer size of the organisation would create a risk of it wielding too much political control over water matters, pushing local concerns further into the background. Also at risk would be integration efforts.

Option 7	Regional NSW-wide agency, ‘Country Water’
A) Business	The business would be so big that it would suffer diseconomies of scale, and it would have to deploy resources over large distances.
B) Council	Councils would lose all assets, staff and other resources associated with water; leading to a net loss in viability for smaller councils.
C) Community	Communities would lose some engagement and input at the local level and would see the business as being a more remote, State agency.
D) Integration	Probably the least potential for integration, but depending on how collaborative the agency is.

8. Disaggregated model – bulk supply, distribution and retail

This option would see a vertical division between services and functions, as is being implemented for South East Queensland and, to some degree, how Melbourne is currently serviced. It could have bulk water supplier(s); treatment and distribution entities; and retailers. The concept is drawn from the power and telecommunications industries and is not attractive for water. The disaggregation creates a major onus for coordination and opens the door to perverse incentives, such as are very evident in the power industry, where providers implement capital works and exercise monopoly power without optimising planning. The individual entities could be structured in various ways, but there are negative signs. Integration would be challenging; local control, ownership and input would probably be the weakest of all; and extracting dividends from all the players could result in price rises beyond those under other options.

It needs to be noted that some degree of disaggregation already exists in NSW with State Water providing bulk water supply and sharing some distribution functions with local water utilities.

Option 8	Disaggregated model
A) Business	Each business would be narrowly focused and granted monopoly power in its market, so would be viable.
B) Council	Councils would lose all water-related personnel, assets and income, unless granted retailer status.
C) Community	Having multiple, large, but narrowly focused players in the market would make community engagement difficult.
D) Integration	Very challenging for integration, given the disparate players and risk of perverse outcomes if they pursue their own agendas and do not collaborate.

9. Status quo

This is the option which has been flagged as unacceptable by Government, but which is where many current LWUs might prefer to remain. The total number of water businesses would probably be unacceptable to Government, although some individual councils would pass muster as being viable, delivering services which meet performance standards, and having the capability to achieve future-oriented goals, such as Fourth Generation water management. In terms of a mixture of options co-existing, this could be one which is able to persist for certain LWUs.

Option 9	Status quo
A) Business	Larger LWUs are viable and effective, but very small ones are not necessarily capable of delivering all water services and operating as professionally as is increasingly required.
B) Council	Councils have no change in scope or size, so unaffected. This is effectively the base case for comparing all other options.
C) Community	Community enjoys the same level of engagement and access that has up to now. Also a base case.
D) Integration	No change in integration, but under-resourced LWUs may not be able to deliver on goals such as Fourth Generation water management.

Table 3, below, pulls together the various options and highlights opportunities and risks.

Table 3 – Opportunities and Risks for the Various Options			
#	Option	Opportunities	Risks
1	“Mandatory” Alliances	Probably quite good returns on modest investments for partners	Being just a supplement to local resources, may not achieve a step change in performance
2	County Council – ops only	Provides good local control for councils	Some separation of powers, so may not achieve Fourth Generation level of integration
3	County Council – owns assets	Better integration of asset management with water system operation than for Option 2	Slightly less local control than Option 2
4	Council-owned regional	Quite good council control, along with good business size	Local control could be compromised by Government domination of board
5	State-owned regional	State would have to take responsibility for viability of business, so takes onus off councils	Major loss of local control – result of the lack of responsibility
6	Regional Council	Probably the best potential for achieving Fourth Generation water integration and local control	Have to accept some loss of local autonomy, i.e. amalgamations
7	State-wide agency	A large business and capable of exercising power	Councils would have to deal with a strong, State-wide agency and integration would be at risk
8	Disaggregated model	Focused businesses, achieving technical efficiency	Probably the worst option for achieving Fourth Generation water, since no guaranteed coordination or local control
9	Status quo	For strong players, the ability to carry on unchanged, and to aspire to Fourth Generation goals.	For LWUs not currently able to perform and lacking critical resources, unilateral Government action might be exercised, without consultation, to achieve reform.

Drawing on the analyses above, and qualitatively sorting the options into two groups, the potentially favourable options are, in no specific order:

- Option 1 – Mandatory Alliance
- Option 2 – County Council delivering services only
- Option 3 – County Council owning assets
- Option 4 – Council-owned regional utility as long as local control remains
- Option 6 – Regional Councils
- Option 9 – Status quo – but probably only for certain LWUs

The options which seem less likely to deliver on all criteria are:

- Option 5 – State-owned regional utility
- Option 7 – State-wide agency
- Option 8 – Disaggregated model.

This is not a rigorous discrimination among options and, for different circumstances, different judgements might be made. This implies that some options might suit some areas better than others, so two, three or even four options might co-exist across the State. Moreover, some options could be viewed as transitional. For example, a mandatory alliance might move on to become a County Council or even a regional Council, in time. Given the power of management fads, it is not inconceivable that a state agency could be broken up into regional units. Some options, of course, would be cemented strongly, and thus hard to change; such as a regional corporatised utility.

It is worth noting that, apart from Options 7 and 8, which rated poorly in the comparisons, all the options involved collaborative groupings of councils in one way or another. Realistically, only a few councils are likely to be allowed to continue with their status quo; the rest should ensure that they proactively engage with Government and their neighbours, to identify and advocate for a preferred option.

We have not attempted to analyse or identify the specific socio-economic impact on particular communities of the different options - as these will depend entirely on which options are chosen, the number of LWUs which are combined and the form in which they are combined - this is part of the process which should be conducted during the dialogue between councils. In light of the principles of community engagement and local input which have been espoused in this report, it could be consistent for the process of deliberation about reform to be conducted under the same value set. A facilitated and supported process of dialogue between councils in each region; and within councils, among their constituents, should be conducted, to allow for strong community ownership and, hopefully, consensus. Perhaps the \$64 question is how many entities, of whatever shape and style, should emerge from this process? The answer will clearly emerge from a process which is both political and analytical. It would be possible, given the necessary resourcing, for each potential grouping to be modeled and tested for sensitivity and probable outcomes. Different options might also yield different outcomes for different groupings, so it must be an iterative process. A realistic timeline must be developed, but it would seem likely to take a year of consistent application to reach a well considered and consensual verdict, provided all participants took a constructive approach and sufficient funding and human resources were made available by the State Government to support the deliberation.

6) Conclusions and Recommendations

- i) To achieve generally better outcomes for regional and rural water businesses across NSW, and especially to strive for the stretch target of Fourth Generation Urban Water Management (analogous to the Water Sensitive City), reform of the current LWU structure across the State appears necessary.
- ii) There are nine conceivable options to be considered (including the status quo), of which the most advantageous five are: Option 1 – “Mandatory” Alliances; Option 2 - County Councils delivering services only; Option 3 – County Council owning assets; Option 4 – Council-owned regional utilities as long as local control remains; Option 6 – Catchment based Regional LWUs, Council owned ; Option 9 – Status quo (for some LWUs); .
- iii) Various combinations of these options could co-exist across the State, selected to suit local conditions.
- iv) Some options could be adopted as transitional arrangements, leading to others. In any event, transition from the status quo to any reformed structure could be problematic and must be sensitively addressed to minimise uncertainty and collateral damage.
- v) In keeping with local engagement and consultation values espoused in this report, the selection of a suite of reform options to suit the regional and rural communities of NSW should be done in a well facilitated, consultative manner, supported financially by the State Government. A reasonable timeframe (12 to 18 months?) should be allowed for the processes to be completed.

Inquiry into secure and sustainable urban water supply and sewerage services for non-metropolitan NSW

Terms of Reference

Objective

To identify the most effective institutional, regulatory and governance arrangements for the long term provision of water supply and sewerage services in country NSW; and
Ensure these arrangements are cost-effective, financially viable, sustainable, optimise whole-of-community outcomes, and achieve integrated water cycle management.

The task

The State's 107 local water utilities are facing growing challenges, posed by drought, climate change, environmental water allocations, demographic shifts, technological advances and skill shortages. In view of the challenges facing the utilities, the Inquiry is to identify the most appropriate institutional and regulatory arrangements for the water supply and sewerage industry in NSW in order to ensure that services are efficient, reliable, affordable and safe.

In particular, the Inquiry should identify arrangements that will enable customers of water utilities in regional NSW to benefit from a secure water supply, professionalism, cost effective service standards and regulatory safeguards in the provision of water supply and sewerage services.

As a minimum, the Government expects water supply and sewerage service providers to:

- respond and plan in advance to the challenges facing the industry;
- be financially self sufficient;
- be able to comply with appropriate stringent environmental and public health standards; and
- implement cost-effective service standards.

In considering the merits of any new industry arrangements, the Inquiry should take into account:

- the historical structure of the industry and its performance record to date;
- the current and future challenges facing the industry;
- the present capacity of the industry to address those challenges;
- alternative industry arrangements used in other states;
- the impact of any changes on the financial sustainability of councils;
- the socio-economic impacts on the community, including indigenous communities, of any new institutional and regulatory arrangements;
- the relative performance of other states and their experience with industry reform;
- the institutional and regulatory options available, including the relative merits and drawbacks of each; and
- the role local, state and federal governments should play in further improving services.

The Inquiry is to focus on the provision of urban water supply and sewerage in rural and regional NSW. Sydney Water, Hunter Water, Gosford City Council water supply authority and Wyong Shire Council water supply authority are excluded from the Inquiry.

NSW Department of Water and Energy, January 2008

References

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