

**National Competition Council's Draft  
Recommendations on the application by  
Services Sydney for Declaration of Sewage  
Transmission and Interconnection Services  
Provided by Sydney Water Corporation**

**Sydney Water Corporation**

**November 2004**

**Table of contents**

- 1. Executive Summary .....3**
  - 1.1 The Draft Recommendation.....3
  - 1.2 Appropriate structure for Sydney’s water market.....3
  - 1.3 The scope of this submission .....4
  - 1.4 The task for the Council in applying the criteria .....5
  - 1.5 Implications of declaration .....5
- 2. Water Policy .....6**
  - 2.1 The Objectives of Sydney Water .....6
  - 2.2 *Meeting the challenges – securing Sydney’s water future*.....7
- 3. Market delineation .....9**
  - 3.1 The test for market delineation .....9
  - 3.2 The evidence of the efficiency of potential transactions .....10
  - 3.3 The evidence from other jurisdictions .....11
  - 3.4 The relevance of the determination of access conditions to market delineation .....12
  - 3.5 Experience from other industries .....12
  - 3.6 Conclusion on market delineation.....14
- 4. The Framework for assessing promotion of competition .....14**
  - 4.1 The with and without test .....14
  - 4.2 Existing framework for sewerage services.....15
  - 4.3 Sydney Water’s regulatory environment .....16
  - 4.4 The introduction of retail contestability in other industries .....17
  - 4.5 Changes needed to the regulatory environment.....19
  - 4.6 Customer protection .....20
  - 4.7 Network integrity and authorised discharges .....21
  - 4.8 Environment, public safety and performance standards.....24
  - 4.9 System efficiency.....27
  - 4.10 Establishing a framework for retail contestability .....28
- 5. Testing for a promotion of competition.....28**
  - 5.1 How competition is promoted .....28
  - 5.2 Evidence of ability and incentive to exercise market power.....29
  - 5.3 The structure of the dependent market.....30
  - 5.4 The dependent market: third party entry is not economically viable .....30
  - 5.5 The dependent market: nature and scope of the regulation by IPART .....32
- 6. Public Interest.....33**
  - 6.1 Approach to the criterion.....33
  - 6.2 The notion of the public benefit.....33
  - 6.3 Impact on policy development .....33
  - 6.4 Consumer protection and public safety .....34
  - 6.5 Environmental issues.....34

# Submission in response to the Draft Recommendation

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## 1. Executive Summary

### 1.1 The Draft Recommendation

The Council has issued a Draft Recommendation in which it has proposed that each of the following services be declared for a period of 15 years under Part IIIA of the *Trade Practices Act, 1974* ("TPA"):

- (a) a service for the transportation of sewage via the North Head Reticulation Network, from a customer's boundary trap to points of interconnection;
- (b) a service for the connection of new sewers to the North Head Reticulation Network at points of interconnection;
- (c) a service for the transportation of sewage via the Bondi Reticulation network, from a customer's boundary trap to points of interconnection;
- (d) a service for connection of new sewers to the Bondi reticulation network at points of interconnection;
- (e) a service for the transportation of sewage via the Malabar reticulation network, from a customer's boundary trap to points of interconnection; and
- (f) a service for connection of new sewers to the Malabar reticulation network at points of interconnection.

The Council has sought submissions on the Draft Recommendation and Sydney Water welcomes the opportunity to provide comments on the Draft Recommendation.

### 1.2 Appropriate structure for Sydney's water market

Sydney Water supports the introduction of appropriate market structures and competition reforms for the provision of water and wastewater services in Sydney, including via appropriate access arrangements that are recommended by the Council and accepted by the New South Wales (NSW) Government. However, Sydney Water believes that access proposals such as outlined in the Application for declaration<sup>1</sup> should be considered in the context of an overarching market framework for providing water and wastewater services in Sydney and not necessarily be driven by specific access proposals. This is important to ensure that the market structure and access arrangements reflect Government policy for these services and facilitate efficient production and consumption decisions.

Sydney Water currently provides sewerage services in Sydney as an integrated monopoly supplier. Its key drivers in providing services are managing its expanding asset base and continuing to meet the Government's stringent regulatory obligations and customer expectations in relation to service and environmental outcomes. As outlined in the Government's Plan *Meeting the challenges – securing Sydney's water future* (the Metropolitan Water Plan), Sydney Water will be required to do this by working with other agencies and the community to more efficiently utilise existing potable water by identifying alternative water sources that represent least-cost outcomes for the community that are delivered at the current levels of service. The private sector will play a major role in this process, as it already does in delivering the majority of Sydney Water's annual expenditure program. The Metropolitan Water Plan also identifies a major new initiative to investigate the supply of recycled water to

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<sup>1</sup> Services Sydney, *Application for declaration of Sydney sewerage network services*, 1 March 2004

the new growth areas of Sydney in the south and northwest sectors, which will be delivered in partnership with the private sector. The Government's Demand Management Fund will also provide significant opportunities for the private sector to obtain subsidies for water savings and alternative supply initiatives that encourage innovation and wider participation in managing Sydney's water supply within available resources.

Sydney Water acknowledges that these proposals will be implemented by the Government under an adaptive management framework and will most likely involve the ongoing consideration of the appropriate market structure for delivering these services to a growing city with scarce water resources. These arrangements could include appropriate access arrangements that allow third parties to compete within Sydney's water and sewerage markets. Sydney Water also accepts the role of the Independent Pricing and Regulatory Tribunal (the Tribunal) in setting prices for Sydney Water's regulated services. Importantly for the Council's final recommendation, Sydney Water would welcome the Tribunal reviewing the current pricing of sewer mining, which is provided free to third party sewer miner, to require that it reflect Sydney Water's avoided costs that result from third parties providing sewer mining services.

Sydney Water notes that the Council's Draft Recommendation comes at an important time in the development of water and wastewater services in Sydney. The Council plays an important role in this process with its Draft Recommendation in effect suggesting that a form of common carriage access (or 'competition within the market') is the appropriate market structure for providing sewerage services in Sydney where sewage collection is split from sewage transportation services. It is important to restate that such arrangements have not been introduced anywhere else in the world for these services and that this proposal is being considered outside of an overarching framework for determining the most appropriate market structure for these services.

Sydney Water accepts that it is ultimately the New South Wales Government's decision to endorse Services Sydney's proposal for providing alternative sewerage services in Sydney. If successful, Services Sydney's application for declaration will require significant changes to facilitate Services Sydney obtaining the access it is seeking. It could also pave the way for declaration of and access being obtained to other parts of Sydney's water and wastewater networks. Also, future attempts to reform Sydney's water and wastewater industry will need to be implemented within the constraints imposed by the existence of any access arrangements. For example, it may be effective to introduce franchising arrangements to allow third parties to provide water and wastewater services in geographic areas. Approval of access arrangements for retail contestability may impede the development of franchise markets on the grounds that potential entrants may not seek to enter these markets due to the complex or uncertain nature of the contestability arrangements.

In light of this, Sydney Water believes that the Council's final recommendation on the Application should be based on an appropriate consideration of the efficient market arrangements for promoting competition for Sydney's water and sewerage services.

### **1.3 The scope of this submission**

Sydney Water's submission seeks primarily to address the question of market definition in the Council's Draft Recommendation and to respond to several of the key issues raised by the Council in making its findings in the Draft Recommendation. Sydney Water also provides more information on the Government's recent announcement of its Metropolitan Water Plan, which provides important insight for the Council on the NSW Government's program for improving the environmental outcomes and facilitating further private sector participation in the provision of Sydney's water and sewerage services.

To assist the Council in finalising its position, Frontier Economics has been commissioned to prepare an independent expert's report on:

- the market or markets relevant to the application;
- whether declaration would promote competition in the relevant markets; and
- whether the declarations sought would promote the public interest.

Sydney Water supports Frontier Economics' report and forwards it to the Council to assist in its deliberations.

#### **1.4 The task for the Council in applying the criteria**

To assess the effects of declaration on competition in the dependent market the Council must be satisfied that the dependent market exists. In this case, Sydney Water is a large, integrated water utility so the Council has to be satisfied that the claimed dependent market embraces a collection of services that it would be efficient for a single enterprise to provide.

There are various models for the provision of water services around the world, however it can not be assumed that all these models are efficient. In light of the absence of competitive market arrangements for Sydney's sewerage services, Sydney Water believes that the Council should examine the empirical evidence to see which groupings of activities would be efficient if markets are to be established. In other words, at which points in the supply chain do the costs involved in the separate provision of services mean that it is more efficient for those services to be provided within one entity or under contract. This would then suggest which groups of activities would constitute markets.

As outlined in Frontier Economics report on this issue, the available evidence suggests that it is efficient for an enterprise to specialise in the retailing and distribution of water and wastewater; but it would be inefficient to disaggregate these activities within any region. It would also be efficient for enterprises to specialise in the provision of water or in the treatment and disposal of sewage, that is, arrangements could be established for these markets. However, none of these markets corresponds to the business model that is proposed by Services Sydney in its Application for declaration.

Frontier Economics analysis also suggests that the model proposed by Services Sydney does not constitute a market. If the Council accepts this, it follows that access to the services nominated in the Application would firstly not promote competition in a dependent market and secondly would be contrary to the public interest.

Notwithstanding these arguments, the Council must take the structure of Sydney's sewerage markets as it is and apply its declaration criteria to that market structure. The Council must be satisfied that if declaration occurs, a regulatory framework will be introduced to facilitate the declaration. Sydney Water acknowledges that it is for the New South Wales Government to set the regulatory framework in line with its objectives for water reforms in Sydney.

In terms of the Council's task in applying its criteria for declaration, the Australian Competition Tribunal has made clear that the task of examining the future 'with and without' declaration requires the Council to consider things that are reasonably likely to occur in the future. In the absence of evidence from the New South Wales Government as to its legislative intent following declaration, the future scenario must exclude consideration of the introduction of any particular reform agenda to facilitate declaration. This is not to say that the New South Wales Government should not introduce such a reform agenda. Rather, it highlights the particular nature of this application where the Council is being asked to consider declaration prior to the issue of appropriate market structure being settled.

#### **1.5 Implications of declaration**

Sydney Water is not opposed to declaration of the services providing declaration satisfies the criteria under Part IIIA of the TPA. However, for the reasons detailed in this document and

the accompanying report from Frontier Economics, it is concerned that if the Draft Recommendation becomes a final recommendation:

- (a) Declaration and pursuit of the Services Sydney proposal is likely to significantly affect the ability to implement other more efficient and effective reform programs, including various structural options. If the New South Wales Government did decide to give effect to the proposed declaration legislative and regulatory changes are required. Those changes would involve putting in place regulatory arrangements to support the particular business model proposed by Services Sydney. That model may not be consistent with the regulatory changes which would support a model which introduced competition at different points in the supply chain, leading to improved consumer outcomes.
- (b) Whilst treatment and disposal can be provided in a market separate from the market for sewage collection and transport and there is scope for competition in the provision of that service, the collection and taking away of sewage is not separable from the customer interface and billing arrangements which are part of that service. Artificial implementation of a commercial interface at this point is likely to lead to significant issues for customers and service delivery of water and wastewater services as a whole.
- (c) The legislative and regulatory changes which would be required are significant and whilst such changes are possible and a matter of Government policy, the impact of any such changes needs to be considered from a customer perspective and in terms of its implications for broader reforms in the water industry.
- (d) The evidence and literature suggest that only limited benefits are likely to accrue from the introduction of retail competition<sup>2</sup>.
- (e) Declaration of this particular bundle of services has the potential to lead to an inefficient industry structure and that would not be consistent with the public interest.

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## **2. Water Policy**

### **2.1 The Objectives of Sydney Water**

Sydney Water supports the development of competitive models for the more efficient provision of water and wastewater services. However, it is concerned that the current proposal by Services Sydney seeks to introduce structural changes to the water industry which will preclude the introduction of alternate, more efficient systems of reform which may provide greater benefits to the community if considered holistically rather than being driven by specific access proposals.

The primary goal in any industry reform, and indeed in the introduction of Part IIIA itself, is to ensure that appropriate arrangements are in place to facilitate efficient production and consumption decisions. This is reflected in s.2 of the TPA which identifies the object of the Act as being "*to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.*" Competition in this regard being a mechanism by which to achieve efficiency. Efficiency, of course, has three aspects - allocative, productive and dynamic.

In considering how to achieve the goal of economic efficiency in the water industry, the maintenance of quality and technical standards is critical. Environmental requirements are

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<sup>2</sup>Vickers J and Yarrow G, *Privatization, An Economic Analysis*, MIT Press, 1988, p.403.

also important. These include the preservation of existing water resources, the maintenance of appropriate environmental standards and the need to make environmental trade-offs in balancing water supply and demand.<sup>3</sup>

A key consideration in any reform and in any declaration under Part IIIA are the costs and benefits of implementing that reform. These costs include:

- (a) the policy making and regulatory costs associated with setting up the necessary regime, including redrafting legislation, establishing and redrafting licences, designing regulatory arrangements, advising consumers of any new rights and responsibilities; and
- (b) administrative costs such as those involved in establishing and monitoring complex contracts and metering and payment costs.

Furthermore, Sydney Water continues to actively explore opportunities for increased use and development of recycled water. Water recycling is an important component in the suite of initiatives that can be implemented to mitigate the demand/supply imbalance. Sydney Water has pursued recycled water opportunities where economically and environmentally viable. In seeking to promote appropriate utilisation of recycled water, the Tribunal has now required Sydney Water to develop and submit recycled water pricing principles for approval at the 2005 determination.

The emphasis on water recycling and other water conservation initiatives takes place in an environment where the NSW Government has established clear obligations for new urban development to conserve water. Water recycling can sometimes be the most cost effective option to achieve these water savings.

Recycled water projects may also present a least cost option to achieve other water conservation or wastewater management objectives. These projects are taken up where they are demonstrated to meet a cost-effectiveness test following evaluation of a range of options (including rain water tanks, water conserving appliances) to meet water saving or environmental objectives.

Sydney Water understands that customers' willingness to pay for recycled water depends on the price of alternative water sources and a range of other costs facing the customer in their decision to connect. If prices for recycled water are set too high or potable water prices are set too low, recycled water investments will fail to optimise water conservation or environmental outcomes.

## **2.2 Meeting the challenges – securing Sydney's water future**

During October, the New South Wales Government released its long-term water plan for greater Sydney to achieve a sustainable and secure water supply over the next 25 years. A copy of the Metropolitan Water Plan is at Appendix 1.

It includes both short-term and long-term solutions on both the demand management and supply sides of the equation, to address the impacts of ongoing drought, secure future water supplies for a growing population, and help restore the health of our rivers.

Sydney Water will implement a number of the key initiatives contained in the Plan.

The Metropolitan Water Plan recognises that there is no one solution to guarantee our water supply in the future, but that a multi-pronged approach – with a range of demand and supply

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<sup>3</sup> Michael Webb and David Ehrhardt, *Improving Water Services through Competition*, Public Policy for the Private Sector, World Bank Note No164, December 1998.

measures - will help protect our precious water supply. It also recognises that the challenge of a secure water supply necessitates a strategic, whole of government approach in partnership with business and the wider community.

Key initiatives of the Plan include building new infrastructure to provide more water, increased recycling initiatives, water conservation and demand reduction measures and actions to improve our environment.

### ***Infrastructure Projects***

- installation of deep water pumping infrastructure at Avon, Warragamba and potentially Nepean Dam to access 30 billion litres of water currently below existing pumps;
- constructing pipelines and tunnels to bring water from the Shoalhaven Catchment into the Sydney catchments, particularly during high flow, to potentially deliver an additional 110 billion litres of water per year;
- trials into access of groundwater by sinking bores to deliver an estimated 13 billion litres of water;
- planning and design of a desalination plant(s) to ensure that if the drought continues, a plant(s) could be built quickly and efficiently; and
- detailed planning for private sector funded recycling project in Western Sydney at an estimated cost of around \$560 million – which could see 80 billion litres being recycled by 2020 for non-drinking purposes.

### ***Demand Reduction***

- a Demand Management Fund of \$30 million per year for four years to assist individuals, businesses, government agencies and Councils that invest in effective water conservation measures;
- government agencies, Councils and the top commercial and industrial water users to prepare water conservation plans by March 2006 and every four years thereafter;
- major water using businesses to retrofit their properties by September 2007 (this may include installation of water efficient devices such as showerheads, taps and toilet flush arrestors);
- accelerated and extensive program to further address system leakage by 6.8 billion litres over the next four years at a cost of \$82 million per year plus inclusion of minimum response times for water main breaks in Sydney Water's Operating Licence;
- extension of the Rainwater Tank Rebate Scheme until July 2008;
- all existing homes sold after 1 July, 2007 will need to be certified as water efficient either via the Building Sustainability Index (BASIX) or the existing Retrofit Scheme;
- mandatory labelling of water efficiency for household appliances;
- "Smart Water Mark" for gardening and irrigation equipment; and
- roll-out of a number of planned recycled water projects by Sydney Water over the next five years to save a further 8 billion litres including BlueScope Steel scheme, Hoxton Park and Rouse Hill Stage 3 land releases and plants at North Head and Malabar sewage treatment plants.

### ***Environmental Flows***

The Plan also recognises that increased environmental flows are needed to protect the health of the Hawkesbury Nepean River. The Government will progressively implement new flow regimes of approximately 26 billion litres for the upper Nepean Dams (Cataract, Cordeaux and Nepean) by 2010.

Approximately \$31 million worth of new works will be required at these three Dams, Avon Dams and downstream weirs to allow releases of water to restore river health.

Interim environmental flow allocations from Warragamba Dam will be increased from 2009 subject to water availability.

### ***Way Forward***

The Plan will be reviewed every five years and updated if necessary to take account of new information on population growth, impact of climate change, and benefits of water releases to the rivers.

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## **3. Market delineation**

### **3.1 The test for market delineation**

As detailed in the Frontier Economics Report, market delineation is usually determined by the existence of actual transactions<sup>4</sup>. However, it is now clearly recognised that there may nonetheless be a market where there are no actual transactions but where there is scope for transactions to occur. In considering whether there is scope for transactions to occur, it is important to consider not only whether it is technically possible for such market transactions to occur, but also whether there are considerations of economic efficiency that mean that such transactions would not be observed in a market subject to the normal disciplines of competitive forces. In other words, one asks: are there economic efficiency considerations that mean that even if the service is technically capable of being the subject of market transactions, such transactions are unlikely to occur in a workably competitive market?

In the context of criterion (a), there need to be at least two markets: one in which the service is provided ("primary market") and at least one in which competition is promoted ("dependent market").

In the Draft Recommendation the dependent markets are identified as:

- (a) *"a dependent market for the provision of retail sewerage services"*<sup>5</sup> (Retail Market) which comprises:
  - (i) the collection of sewage from customer premises;
  - (ii) the transmission of the sewage from the customer's premises;
  - (iii) the treatment of the sewage to whatever environmental standard is required; and
  - (iv) the disposal of the treated sewage and solids.
- (b) *"a potential market for the provision of recycled water"*.<sup>6</sup>

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<sup>4</sup> Frontier Economics Report section 2.2.

<sup>5</sup> Draft Recommendation para 6.40.

The Council found those markets to be separate from the "*primary market for transportation and interconnection services the subject of the application for declaration*". Each of the dependent markets identified is either a market in which actual transactions occur or in which there is potential for transactions to occur. Sydney Water itself provides sewerage services to customers which include each of the four elements set out in the Council's description of the Retail Market, although Sydney Water provides these services in combination with water services. Similarly, there are currently projects which involve the supply of recycled water. These projects generally involve recycled water being competitive with potable water for the relevant uses. There is clearly scope for transactions to occur for the supply of recycled water and it is therefore capable of being the subject of market transactions.

What is more difficult is determining whether or not the primary market comprises a collection of activities that are themselves capable of being the subject of market transactions. In this regard, the transport service is not a service which Services Sydney itself proposes to provide and from the available material it appears that it only proposes to provide "collection services" to the extent that those services involve contracting with and billing the customer for sewage collection.

Sydney Water had submitted that the transport and interconnection services were part of the same market as the retail services of which Services Sydney had sought declaration because it was inefficient for there to be market transactions in respect of the transportation services given the costs involved in separate provision. The Council was not satisfied that the evidence before it enabled it to conclude that the costs involved in the separate provision of those services outweighed the benefits which would result.

The Frontier Economics Report contains a detailed survey of the ways in which one may examine whether or not it is efficient for market transactions to occur, being an empirical examination of the efficiency of potential transactions and a study of experiences in other jurisdictions<sup>7</sup>. In light of the material contained in that report, Sydney Water invites the Council to reconsider its assessment of the costs and benefits derived from the structure proposed by Services Sydney. The key factors in the assessment of the costs and benefits are addressed in the following sections.

### **3.2 The evidence of the efficiency of potential transactions**

In its analysis of the relative costs, Frontier Economics draws the following observations from the various empirical studies which have been conducted:

- (a) it appears that it would be more efficient to organise the three distribution systems (North Head, Bondi and Malabar) within separate enterprises and to co-ordinate the relationships between them by means of contract;
- (b) there is evidence of significant economies of scope in the provision of water and wastewater services and that the separation of water and wastewater services at the retail/distribution end of those chains of production may cause significant inefficiencies;
- (c) the sets of activities grouped together by Services Sydney do not constitute markets because:
  - (i) they separate the customer interface in water services from the customer interface in wastewater and that separation is likely to be inefficient; and

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<sup>6</sup> Draft Recommendation para 6.42.

<sup>7</sup> Section 3 examines the evidence of direct measurement of the relative costs of different structures for the delivery of water services and Section 4 examines the structures that have emerged in other jurisdictions and in other public utilities that have been exposed to competition.

- (ii) the group of activities proposed by Services Sydney separates the wastewater distribution activity from the wastewater customer interface and most commentators and industry experts regard that as inefficient.
- (d) there is evidence to suggest that it is efficient for independent contractors to undertake the treatment and disposal of wastewater.

Based on these observations and the underlying empirical evidence, Frontier Economics concludes that:

*Any allocation of activities among enterprises should follow the following principles:*

- (a) *The retail businesses should combine the activities of billing, customer service, and distribution of water and wastewater within each region. Economies of scale and scope suggest that these activities together constitute a natural monopoly;*
- (b) *In the context of this Application, and providing the retail businesses combined the activities outlined in (a) above, there may well be within Sydney three separate retail natural monopolies, serving the regions of North Head, Bondi and Malabar; and*
- (c) *The activities of bulk water supply and wastewater treatment/disposal seem to be separable from the activities included in the retail activities included under the first point above. It would seem appropriate to define these two activities as separate markets. These markets are not natural monopolies.*

From experience in New South Wales and elsewhere, it can be seen that it is efficient for there to be transactional separation between the activities of sewage treatment and disposal and the customer collection and transport function.<sup>8</sup> The Council is aware of the sewer mining activities which are currently undertaken by arrangements with Sydney Water. To date, there has been difficulty in establishing the viability of sewer mining projects because the unit cost of water from sewer mining exceeded the price of potable water.

Sydney Water can see a strong case being made for the development of enhanced terms and conditions around the provision of sewer mining services. This could involve the adoption of an avoided cost basis for pricing the service and, otherwise, the introduction of standard terms and conditions for the delivery of the service. An avoided cost basis for pricing is likely to lead to a negative price for the provision of the services. In other words, Sydney Water would be paying the third party sewer miner.

### **3.3 The evidence from other jurisdictions**

Having reviewed alternate forms of structures in the water industry, Frontier Economics concluded that:

- (a) *the patterns of competition for the market generally provide little evidence of the relative efficiencies of co-ordination by contract and co-ordination within an enterprise. The exception to this is the division between contracting out of operations on the one hand and the planning and ownership of infrastructure on the other;*
- (b) *contracting out provides little evidence on the separation of:*

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<sup>8</sup> Section 3.3.2 of the Frontier Economics Report analyses this issue in detail.

- (i) *distribution systems of water and wastewater;*
- (ii) *customer services for water and wastewater; and*
- (iii) *billing of water and wastewater services.*

*Whilst not in itself conclusive, the absence of any international experience of market structures comparable to those suggested by Services Sydney, raises real doubts about whether such a structure is efficient.*

### **3.4 The relevance of the determination of access conditions to market delineation**

The question of whether services are economically separable so as to constitute a separate market involves an assessment of the costs involved in providing those services separately compared with the benefits which result from having such separate transactions. Thus, the question of determining whether the services are economically separable itself involves an assessment of the ability and cost of defining and monitoring an interface between the respective services. Where the costs of specifying and measuring service quality are especially high relative to any gains that can be obtained by relying on multiple sources of supply, the inter-dependent activities are likely to be grouped with a single organisation.

This is an assessment which needs to be carried out in determining the scope of economic activities which form the boundaries of the relevant market. The possibility that market mechanisms and/or regulatory design<sup>9</sup> could be used to address such issues if declaration did, in fact, occur leaves unanswered the antecedent question of whether it is efficient to have a transactional interfaces at that point. Similarly, the fact that the Australian Consumer and Competition Commission (ACCC) may have power to determine terms and conditions of access leaves unanswered the question of whether the determination of such terms and conditions of access<sup>10</sup> leads to an inefficient outcome.

Equally, the ability of any entity to respond to particular behaviour if declaration does occur is a matter which goes to the assessment of the market conditions, once the relevant market has been clearly identified. In any event, care needs to be taken in analysing market incentives and market dynamics in circumstances where one industry participant is subject to extensive regulation, particularly price regulation. For example, the regulatory mechanisms which apply to Sydney Water impose significant limitations on its ability to change its pricing policies<sup>11</sup> and any proposed change is subject to an IPART pricing review process.

### **3.5 Experience from other industries**

Any comparison with the experience in other industries needs to be undertaken with significant caution and the specific circumstances of any given industry need to be examined carefully. As Frontier Economics notes at p.46 of its report:

*Whether particular market structures in gas and electricity are or are not efficient, it is incontrovertible that they have emerged as a result of planning decisions: they have not emerged as a result merely of some impersonal market forces. Indeed, it*

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<sup>9</sup> Draft Recommendation para 6.27.

<sup>10</sup> Draft Recommendation para 6.29.

<sup>11</sup> The details of legislative basis of price regulation of Sydney Water are set out in Appendix 2. To illustrate the limitations on the ability of Sydney Water to respond to pricing behaviour on the part of a new entrant, at present, the regulated pricing mechanisms provide for postage stamp pricing approaches across the area serviced by Sydney Water. This contains inherent cross subsidies within and between customer classes. Any move to swift away from this current pricing approach would require approval from the Independent Pricing and Regulatory Tribunal. It is an open question whether IPART would support a move away from postage stamp pricing and such a process would be a time consuming one involving extensive public consultation.

*has been persuasively argued, that the experience of these markets shows that their ability to function effectively depends very much on the precise rules and structures that are imposed upon them.*<sup>12</sup>

In any event, it has generally been accepted that the benefits which may be derived from retail competition in the water industry as a whole, and specifically in wastewater, are significantly less than those which would accrue in other network industries such as gas and electricity. In the Australian context, Marsden Jacob Associates conducted an assessment of the Victorian water sector commissioned by the Victorian Department of Natural Resources and Environment for the purposes of the National Competition Policy review of the Victorian water legislation. In the report on that review, Marsden Jacob Associates said:

*Assessment of the Victorian water sector identifies that:*

*...opportunities for applying property-rights and markets in sewerage are more problematic given the more complex nature of the product. Prima facie, the benefits in both areas are lower than in electricity or gas.*<sup>13</sup>

They went on to say in the context of an assessment of costs and benefits:

*Third party access may drive lower-cost outcomes. Equally, individual large users should gain greater control over a key resource and win some benefits through reductions in their charges. Finally, the pressure of competing retailers may create beneficial pressures on the incumbent supplier.*

*However, the introduction of an access regime will create pressures for the de-averaging of prices within supply areas and for the introduction of large user tariffs. This approach will raise the same 'cherry-picking' issues as would any form of price competition where prices tend to be averaged. It may lead to an increase in prices for residential customers and undermine the policy of universal access.*

*Equally, as noted above, it is not clear that there are likely to be major cost advantages to be won from third party access to water infrastructure where there is only a single source of supply, although there may be some savings, for the access seeker, from reduced transmission costs.*

*Any such approach would also generate transaction costs as it would require the incumbent water businesses to allocate resources to develop robust and defensible access charges and rules*<sup>14</sup>.

This view is consistent with that expressed by Vickers and Yarrow<sup>15</sup>, which is discussed in detail in the Frontier Economics Report. Vickers and Yarrow conclude that:

*In theory, as in other network industries, it is possible to envision the separation of pipeline operations from, for example, the water supply (sales) business...it also has to be recognised that any resulting benefits from increased competition in supply are likely to be considerably less than in other utility industries. Unlike gas and electricity, the costs of 'producing' water suitable for domestic consumption are relatively low in relation to the value added at the transport stage.*

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<sup>12</sup> John McMillan, "Using Markets to Help Solve Public Problems", pp 73-89 of Takatoshi Ito and Anne O Krueger (eds), *Governance, Regulation, and Privatization in the Asia-Pacific Region*, The University of Chicago Press, 2004.

<sup>13</sup> Natural Resources & Environment, National Competition Policy Review of Water Legislation, Marsden Jacob Associates, 12 June 2001 at p.30.

<sup>14</sup> *ibid* at p.33; see also p.22.

<sup>15</sup> Vickers J and Yarrow G, *Privatization, An Economic Analysis*, MIT Press, 1988, p.403.

In the context of the present application, Marsden Jacob Associates have prepared a report on behalf of Services Sydney in which comparisons are made between situations in gas, electricity and sewerage with a view to arguing that there is no relevant distinction between those industries in separating a retail function.<sup>16</sup>

The position put forward in this report is not consistent with the view which Marsden Jacob Associates expressed previously in considering its National Competition Policy review of the Victorian water industry referred to above. There is nothing cited in the recent Marsden Jacob report which would provide a basis to argue that there has been a substantive change of position.<sup>17</sup>

### **3.6 Conclusion on market delineation**

When analysed in terms of first principles and by reference to comparative models, as has been done in the Frontier Economics Report<sup>18</sup>, the evidence suggests that there are significant inefficiencies associated with the separate market delineation which has been proposed by Services Sydney.

The task of the Council in determining whether market boundaries exist involves the identification of:

*a range of economic activities defined by reference to particular economic functions (e.g. manufacturing, wholesale or retail sales), the class or classes of products, be they goods or services, which are the subject of those activities and the geographic area within which those activities occur.*<sup>19</sup>

The available evidence suggests this matter needs to be carefully considered in order for the Council to be satisfied that there is the required separation of primary and dependent markets in this matter.

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## **4. The Framework for assessing promotion of competition**

### **4.1 The with and without test**

In considering whether criterion (a) is satisfied, it is necessary to "*look to the future on a similar basis to the way it [the Tribunal] looks at the authorisation provisions, namely the future with or without declaration*".<sup>20</sup> This involves a consideration of what impact declaration would have over and above the conditions which would otherwise exist in the future. The Council identifies this as the approach which it should take<sup>21</sup> and assesses the without declaration scenario as being "the current position". Sydney Water agrees with this approach.

The difference between the future with declaration scenario and the without declaration scenario is the fact of declaration. All factors other than declaration must be held constant. In other words, the question to be considered by the Council is: what consequences will flow from the fact that third parties have an enforceable right to negotiate access to the relevant services with the ability of the ACCC to determine terms and conditions of access?

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<sup>16</sup> Marsden Jacob Associates 26 July 2004 at p 23.

<sup>17</sup> A more detailed critique of the report prepared by Marsden Jacob Associates in the context of the present application is contained in section 5.4 of the Frontier Economics Report.

<sup>18</sup> Refer in particular to sections 3, 4 and 5.6 of the Frontier Economics Report.

<sup>19</sup> *Singapore Airlines v Taprobane*, (1992) ATPR 41-159 at pp 40,169-70.

<sup>20</sup> *Sydney International Airport* (2000) ATPR 41-754 at 40,775.

<sup>21</sup> Draft Recommendation para 6.46.

The Council can include consideration of changes which it is satisfied are likely to occur and examine the impact which declaration will have on that environment.

Criterion (a) does not limit or preclude reform initiatives which the Government may seek to implement, including Services Sydney's business model. What it examines is the impact of declaration on the competitive environment.

Whether implementation of a reform program to facilitate any declaration involves a net public benefit is a matter which can be considered under criterion (f). Criterion (f) is a broad ranging criterion which does include consideration of broad questions of industry policy. Criterion (a) is more limited in its scope and asks the Council to consider the impact of declaration given the current regulatory environment.

Since the date of the Council's Draft Recommendation the New South Wales Government has issued its Metropolitan Water Plan. To the extent that the Council is satisfied that events, market structures and/or market dynamics are likely to be affected by the Metropolitan Water Plan, then that is a matter which the Council should take into account in assessing the future both with and without declaration.<sup>22</sup>

Under criterion (a) the task which is to be undertaken is an assessment of the extent to which access (or increased access) will promote competition. The term "access (or increased access)" has been held by the Australian Competition Tribunal to mean access by the mechanisms contemplated under the applicable access regime<sup>23</sup>. Accordingly, it is an assessment which takes as a given the existing regulatory environment. It does not enable potential regulatory changes to be assumed and then a competition assessment undertaken on the basis of that assumed regulatory structure.

The Council therefore examines under criterion (a) what is likely to flow from declaration in the current regulatory environment. In the balance of this section 4, Sydney Water provides further information about the existing regulatory framework. The Council will note from this further information that there are at present certain practical steps that would need to be undertaken to facilitate the implementation of a business model such as that of Services Sydney and accordingly declaration, without these steps being taken, will not lead to a promotion of competition.

Sydney Water is fully receptive to the notion of potentially wide ranging changes being made to the regulatory framework to overcome these impediments. It is the role of the NSW Government to change the regulatory framework to reflect its policy on the delivery of efficient water services via market arrangements, and Sydney Water will support whatever initiative the Government decides to implement.

## **4.2 Existing framework for sewerage services**

The provision of sewerage services in NSW is extensively regulated. This regulation is necessary to provide customer protection, protect the environment and ensure public safety. The legislative framework also facilitates the efficient delivery of this essential service.

In NSW there are three categories of providers of sewerage services, each subject to their own specific regulatory regimes. Each of these categories of sewerage service provider (SSP) provide both network services and retail services.

SSP in NSW fall into the following categories:

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<sup>22</sup> In this case the Council has proposed declaration for a period of 15 years . but appears to have used a shorter time frame for assessing any promotion of competition: see para 6.86 of the Draft Declaration.

<sup>23</sup> *Duke Eastern Gas Pipeline Pty Limited* (2001) 23 ATPR 41-821 at 43,060.

- (a) Hunter Water Corporation and Sydney Water who provide sewerage services in their areas of operation as required by the *Hunter Water Act* 1991 and the *Sydney Water Act* 1994 ("**Sydney Water Act**") respectively;
- (b) water supply authorities either established under their own enabling legislation or by the *Water Management Act* 2000 ("**Water Act**") who provide sewerage services in designated areas of operation in accordance with the *Water Act*; and
- (c) local councils who provide sewerage services in areas outside the Hunter Water and Sydney Water areas of operation and land within the area of operation of a water supply authority constituted under the *Water Act*<sup>24</sup>. These services are regulated by the *Local Government Act* 1993 ("**LGA**") and the Local Government (Water Services) Regulation 1999.

The compliance of each of these SSPs with its respective statutory obligations is audited and enforceable by an independent regulator. In the case of Hunter Water and Sydney Water, the primary regulator is IPART. The Minister for Natural Resources and the Minister for Local Government respectively administer the statutory regimes for the supply of sewerage services by water supply authorities and local councils.

Each of these statutory regimes has the following features:

- (i) it imposes statutory obligations on the SSP:
  - to provide sewerage services<sup>25</sup>; and
  - to ensure that sewerage infrastructure complies with certain standards<sup>26</sup>.
- (ii) it creates powers for the SSP:
  - to charge fees for its services (including undertaking connection works) and to recover payment of those fees<sup>27</sup>; and
  - to regulate inputs into its sewerage system and connections to its sewerage infrastructure<sup>28</sup>.

### 4.3 Sydney Water's regulatory environment

The provision by Sydney Water of sewerage services is extensively regulated by the Sydney Water Act, the Operating Licence Sydney Water is required to hold under the Sydney Water Act and the Customer Contract Sydney Water is deemed by the Sydney Water Act to have entered into with all landowners in its area of operations.

Sydney Water's Operating Licence is granted to Sydney Water under section 12 of the Sydney Water Act. The terms of the Operating Licence were recommended by IPART, pursuant to Section 9 of the IPART Act 1992. Relevantly, the Operating Licence provides for the following:

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<sup>24</sup> s56 *Local Government Act* 1993.

<sup>25</sup> s59A LGA, s292 *Water Act*, s12 *Sydney Water Act*.

<sup>26</sup> s403 LGA, s293 *Water Act*, s14 *Sydney Water Act*.

<sup>27</sup> cl 15 *Local Government (Water Services) Regulations* 1999, cl 87 *Water Management (Water Supply Authorities) Regulation* ("**WSA Regulation**"), s60 *Sydney Water Act*.

<sup>28</sup> s68 LGA, s296 *Water Act*, cl 38 *WSA Regulation*, s37 *Sydney Water Act*.

- customer and consumer rights;
- ensuring drinking water quality;
- performance standards for Sydney Water's systems;
- water conservation and demand management;
- management of the impact of Sydney Water's activities on the environment;
- setting of prices, fees and charges for Sydney Water's services;
- establishment of complaints and dispute resolution procedures/schemes; and
- Sydney Water's powers to contract out.

A procedure for amendment of the Operating Licence is specified in the Sydney Water Act and the Operating Licence. Section 16(2) of the Sydney Water Act provides that an amendment of the Operating Licence will be effective if it is laid before both Houses of Parliament and no motion to oppose the amendment is successfully made. Clause 2.5.1 of the Operating Licence specifies that the licence may be amended by the Governor by notice in the Government Gazette.

The Customer Contract is contained in Schedule 1 to the Operating Licence. Clause 2.1 of the Customer Contract provides that it is a legally enforceable document and is a requirement of the Sydney Water Act. The Customer Contract provides for the following:

- who is covered by the Customer Contract;
- the services Sydney Water provides;
- charging and payment of charges by customers and management of account disputes;
- Sydney Water's rights to disconnect or restrict water and sewerage services;
- Sydney Water's obligations to pay compensation;
- allocation of responsibilities for maintenance; and
- water meter installation, testing and maintenance.

The Customer Contract (other than a variation in respect of fees and charges determined by IPART) may only be varied by Sydney Water with the approval of the Governor<sup>29</sup>.

#### **4.4 The introduction of retail contestability in other industries**

In other industries where there has been some form of retail competition introduced, it has generally occurred as part of a planned reform programme which has been accompanied by the development of a detailed regulatory framework to ensure:

- (a) customer protection including provider of last resort commitments;
- (b) adequate protection of the integrity of network infrastructure;

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<sup>29</sup> s 59 Sydney Water Act.

- (c) protection of the environment, public health and safety; and
- (d) efficiency in the delivery of the services.

Generally, service providers are required by the regulatory scheme to hold and comply with a licence. Compliance with this licence is audited by an independent regulator.

The current regulatory arrangements for the provision of sewerage services in Sydney are comparable to the arrangements existing in NSW for the electricity and gas industries prior to the introduction of retail contestability.

### ***Introduction of Retail Contestability in the Electricity Industry***

A number of key structural changes were made to the regulatory framework under the *Electricity Supply Act 1995* to support the introduction of full retail competition<sup>30</sup>.

In particular, the amendments included:

- *Separation and clarification of network and retail supplier rights and obligations.* Relevantly the concept of an “electricity distributor” was removed and separate and clear roles for “distribution network service providers” (DNSPs) and “retail suppliers” were established;
- *Codification of a default level of service.* This was considered necessary as in a competitive market retail entities would have a strong incentive to degrade the default level of service provided at the regulated price to allow them to cross-subsidise their competitive offerings. The *Electricity Supply Act 1995* also now provides for the Minister to grant an endorsement under a retail licence requiring a retailer to act as the default supplier; and
- *Establishing new customer protections.* New types of customer contracts namely supply contracts and a connection contract were developed. Further customer protections were put in place such as the definition of small and large customers, the development of a Marketing Code of Conduct, strengthening of the internal dispute resolution system for retail businesses and provision of access to the independent Ombudsman scheme, the development of rules governing the transfer of retailers between customers and rules governing arrangements for the metering of customers that remained with the incumbent retail supplier. (Rules for the metering of customers that switch to an alternative retail supplier are provided for at a national level via the National Electricity Market Management Company, the National Electricity Code and National Electricity Law).

Amendments were also made to the *Electricity Supply Act* to establish the capacity for IPART to regulate retail electricity prices (which it now does).

### ***Introduction of Retail Contestability in the Gas Industry***

The *Gas Supply Act 1996* was significantly amended to allow for retail competition in the market for natural gas in New South Wales<sup>31</sup>. These amendments provided for:

- *Regulation of the natural gas retail market* including:
  - ⇒ a guaranteed right of supply under a standard customer supply contract to small customers;

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<sup>30</sup> See *Electricity Supply Amendment Act 2000*.

<sup>31</sup> *Gas Supply Amendment (Retail Competition) Act 2001*.

- ⇒ a gas industry ombudsman scheme;
  - ⇒ approval by the Minister of market operation rules;
  - ⇒ a marketing code of conduct for marketing natural gas to small retail customers;  
and
  - ⇒ authorising IPART to make pricing orders under the Act for small customers on standard form customer supply contracts.
- *Full Retail Competition cost recovery* - This amendment allows the costs to the State of implementing full retail competition in natural gas to be recouped from reticulators and suppliers.

The full retail competition arrangements for gas supply closely match those put in place for electricity supply and in many cases were developed in parallel with the electricity arrangements to maximise convergence (for example, the customer protection framework including the marketing code of conduct).

#### **4.5 Changes needed to the regulatory environment**

The assessment of the changes that will need to be made to the existing regulatory framework to permit a third party, such as Services Sydney, to provide sewerage services are based on the elements of Services Sydney's proposal as outlined in its Application for Declaration dated 1 March 2004 (at pages 14-15), namely:

- sewage collection services are proposed to be provided in accordance with a customer contract on a similar basis to Sydney Water;
- sewage collection services are proposed to be provided to residential, commercial and industrial retail customers;
- a billing/customer relations platform will be developed either by Services Sydney alone or in partnership with an existing utility; and
- the pricing structure is anticipated to be comparable to Sydney Water's and based on a fixed charge for residential customers, with volumetric charging for larger customers.

At a practical level the Services Sydney proposal involves the following elements:

- billing of customers;
- interception and diversion of wastewater from Sydney Water's infrastructure;
- transport of wastewater to treatment works;
- treatment of wastewater; and
- disposal / recycling of treated water.

One of the features usually associated with the provision of retail services is the provision of all customer interface services including emergency and maintenance services. From the material available, it appears that Services Sydney does not propose to provide these services. Presumably it intends that provision of these services to customers will remain with Sydney Water.

## 4.6 Customer protection

In the event that retail contestability for sewerage services in the Sydney region were introduced, the regulatory framework would need to be adjusted to provide adequate protection for customers. Amendments would be necessary to clarify provider of last resort commitments as well as to make structural changes in the arrangements between the suppliers and the customers in order to unbundle sewerage services from other services provided by Sydney Water and to separate network and retail services.

The Sydney Water Act deems all property owners in Sydney Water's area of operation to have entered into a contract with Sydney Water for the supply of services comprising the supply of water, sewerage services, stormwater drainage services and the disposal of wastewater. The terms of the contract are prescribed by a standard form Customer Contract established under the Sydney Water Act and the Operating Licence<sup>32</sup>. Sydney Water is required to provide these services by section 14 of the Sydney Water Act. Changes to these provisions may be required to allow for another provider to provide services as contemplated by Services Sydney. Such changes may, at the same time, address the need for a provider of last resort, which would presumably be Sydney Water.

### *Section 55(1) of the Sydney Water Act*

This provision deems all owners of land connected to Sydney Water's sewerage mains to have entered into a customer contract with Sydney Water on the terms set out in the Operating Licence for the provisions of sewerage services:

*An owner of land that is connected to a water main or sewer main owned by the Corporation is taken to have entered into a customer contract with the Corporation, on the terms and conditions set out in the relevant operating licence or licences as varied from time to time in accordance with section 59, for the provision of water supply or sewerage services, or either of them, to the land.*

In the environment proposed by Services Sydney, for customers who signed up with Services Sydney, they would still need to have contractual arrangements with Sydney Water for the provision of water services and potentially for the provision of other services such as metering, maintenance and provider of last resort commitments. There would need to be separate arrangements for the sewerage services between Services Sydney and the customer for sewerage services.

### *Operating Licence*

The Operating Licence would need to take into account the possibility of another entity providing sewerage services. In particular:

- depending on how s55 is amended, amendment of clause 5.1.2 would be required. This clause provides:

*Subject to section 56 of the Act, the Customer Contract automatically applies to persons specified in section 55(1) of the Act.*

- amendments would be necessary to unbundle sewerage services from other water services provided by Sydney Water; and
- some changes may be required to the definitions of the terms "customer" and "consumer".

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<sup>32</sup> We note that Service Sydney has indicated that it proposes to provide services on the same basis as Sydney Water does under the Customer Contract.

## ***Customer Contract***

As outlined above, currently Sydney Water is deemed to have entered into a contract with all property owners in its area of operations. This contract encompasses all categories of services provided by Sydney Water and in the event of that a third party were to provide sewerage services, changes would be needed to unbundle the services and separate retail and network responsibilities.

In particular, the following arrangements under the Customer Contract would need to be reviewed:

- provisions of the Customer Contract which mandate the supply by Sydney Water of sewerage services to the customer<sup>33</sup>;
- allocation of responsibility for maintenance and the right to require customers to remedy defective work (clause 8 of the Customer Contract);
- the disconnection rights of customers and the customer's obligation to pay charges (including a service availability charge) (clause 6 of the Customer Contract);
- arrangements regarding blockages, planned and unplanned interruptions, rebates (clause 7 of the Customer Contract); and
- Sydney Water's entitlement to disconnect water services in the event of unauthorised discharges (clause 6.3 of the Customer Contract).

## **4.7 Network integrity and authorised discharges**

The integrity and effective functioning of the sewage reticulation and treatment network requires a level of coordination and control over inputs into the network. The importance of this is reinforced in all legislative schemes for the provision of sewerage services in NSW. Under each regulatory scheme it is a criminal offence for trade waste to be discharged into a sewerage system except in accordance with an approval from the relevant SSP.

Sydney Water regulates all non-domestic inputs into its system in accordance with its Trade Waste Policy (2003). Sydney Water is required by its Operating Licence to develop this Trade Waste Policy in consultation with the public. In accordance with the Sydney Water Act trade waste customers discharging industrial wastes into the Sydney Water sewerage system enter into a specifically tailored trade waste agreement with Sydney Water. Among other things these agreements impose obligations on the customer to monitor discharges and provide reports to Sydney Water and prohibit the discharge of certain substances. The terms of these agreements are determined in accordance with the Trade Waste Policy. Effectively the existence of a direct contractual arrangement between Sydney Water and each trade waste customer allows Sydney Water:

- (a) to anticipate and cater for the introduction of certain substances;
- (b) to regulate the average daily volume and maximum instantaneous volume of trade waste discharged into its sewerage system; and

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<sup>33</sup> For example:

Clause 2.2 which provides that a person is a customer and is covered by the contract if the person is the "owner of property within our area of operations that is connected to a water main or sewer main owned by us, except where the connection has not been authorised or approved by us"; and

Clause 3.2.1, which states: "If your property is connected to our sewer system, we will supply you with sewerage services to meet a customer's reasonable needs for the discharge of domestic sewage except:

- where we are entitled to discontinue supply under clause 6; or
- in the case of planned interruptions and unplanned interruptions, under clauses 3.4.2 and 3.4.3; or
- in the case of events beyond our reasonable control."

- (c) to compel customers to treat waste before it is discharged to the sewer.

If these matters were not regulated by Sydney Water the integrity and lawful functioning of Sydney Water's sewerage network could be compromised and Sydney Water's exposure to liability under the Sydney Water Act and environmental laws would significantly increase.

As part of its processes for managing and maintaining its sewerage infrastructure Sydney Water regularly monitors and audits the compliance of its trade waste customers with their trade waste agreements<sup>34</sup>.

#### ***Section 49 Sydney Water Act***

This provision provides that a person cannot discharge into a Sydney Water sewerage system unless they have an agreement with Sydney Water:

*49. Offence to discharge into works:*

*(1) A person must not discharge any substance into a work owned by the Corporation except with the written agreement of the Corporation.*

*(2) This section does not apply to the use of a work by a person in accordance with a customer contract or other contract or arrangement between the Corporation and a person.*

This provision is important because trade waste discharges:

- (a) have a significant potential to impact both treatment costs, if large loads are involved, or disrupt sensitive biological treatment processes if hazardous or toxic chemicals are present;
- (b) can impose local capacity issues in the sewer, and result in the generation of compounds and gases that can accelerate deterioration of the sewer or represent a hazard to both workers and the public; and
- (c) can adversely affect worker and public safety, the structural integrity or operations of assets.

Accordingly, trade waste discharges are highly regulated with strict controls over the composition and volumes of effluent discharged. In many instances, the pre-treatment of waste is required to ensure that any chemicals of concern within the trade waste discharges are at levels that will not impact on the integrity and safety of the sewage network, nor the ability of the treatment plant to meet licence conditions.

Consequently:

- domestic customers of Services Sydney whose sewage passes through Sydney Water's reticulation system would need to enter into an agreement with Sydney Water; and
- trade waste customers of Services Sydney whose sewage passes through Sydney Water's reticulation system would need to enter into an agreement with Sydney Water.

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<sup>34</sup> This monitoring role includes:

- reading wastewater meters installed at high volume trade waste customers to ensure that the customer is not exceeding the maximum daily volume or maximum instantaneous discharge rate prescribed by the trade waste agreement; and
- undertaking sampling to ensure that a correlation exists between samples obtained by the customer and data provided by the customer to Sydney Water and samples obtained by Sydney Water.

These agreements would need to require trade waste that is to be discharged meets published acceptance standards.

Currently, for industrial customers, Sydney Water uses a risk assessment that considers the volume of trade wastewater discharged by the customer, the capacity of the receiving sewage treatment plant, the substances discharges, the customer's compliance history and the *activity factor* for the process being conducted on the site. The risk assessment process and associated risk index is used to specify annual agreement, renewal and variation fees to be collected from Sydney Water's customers.

All industrial customers are required to manage their trade wastewater, monitor their own trade wastewater discharge, and collect and analyse composite samples on specified days. Sydney Water specifies the method of analysis for each substance and requires customers to use NATA registered laboratories.

Trade waste agreements provide for quality charges to cover the cost of accepting, transporting and treating trade wastewater. They are based on the mass of substances discharged and the potential risk this presents to Sydney Water's sewerage systems.

The capacity of Sydney Water's systems to accept and treat specific substances from trade waste discharges may become limited due to increased development within the catchment, changed environmental regulations, health and safety requirements or operational restrictions. The Trade Waste Policy uses incentive prices to reduce the mass of these substances from industrial processes.

Sydney Water has developed a biosolids, effluent quality and capacity model called the *Trade Waste Model* that it uses on a quarterly basis to assess the impact of accepting trade wastewater at each sewerage system in accordance with critical substance limits. Where a substance needs to be restricted the substance for charging purposes will be declared as critical or over capacity.

Where as a consequence of accepting trade wastewater a sewerage system, or sub-system is determined to be affected, or likely to be affected by significant corrosion, the system will be declared as corrosion impacted. Under these conditions customers may be required to implement improvement programs.

If pricing mechanisms fail to reduce or contain the total mass of a critical or over capacity substance within a sewerage system, Sydney Water will negotiate directly with customers to reduce the mass of a substance and can apply load capping.

In order to deal with trade waste discharges in an environment where someone other than Sydney Water contracts with customers who discharge into the networks, there will need to be a system developed which enables Sydney Water to:

- (d) know the details of the discharges and provides for a system of ongoing monitoring of those trade waste results) in order for it to be able to manage and maintain the infrastructure;
- (a) assess the potential impact of the discharges on a wide range of requirements related to asset management, environmental obligations, worker safety and set charges accordingly;
- (b) impose limits on particular trade waste discharges from the competitors trade waste customers (either directly with those customers or through its agreement with the new entrant); and
- (c) require the new entrant and its customers to have policy and practice consistent with Sydney Water's Trade Waste Policy and practice as updated and developed from time to time.

Similarly, mechanisms would be required to ensure that any trade waste agreements with Sydney Water did not adversely impact on a new entrant's treatment and recycling.

It may be that rather than having Sydney Water perform some of the functions described above, it would be more competitively neutral to have these functions performed by an independent regulator. Arrangements would need to be made for the establishment, operation and funding of such a regulator. Even if this were to occur, Sydney Water would still need to undertake detailed assessment of the impact of discharges on its system.

Access to trade waste customers by competitors within the existing system will significantly complicate what is already a system of complex arrangements that are needed to manage the wide range of impacts that can occur as a result of trade waste discharges. Significant duplication of regulatory activities can be anticipated.

In addition, it is unclear from s.49 of the Sydney Water Act whether an agreement between Sydney Water and Services Sydney could remove a requirement for the Services Sydney customer also to have an agreement with Sydney Water. There are strong public policy reasons for ensuring that the discharge of trade waste into a sewerage system is enforced by criminal offence provisions that apply to the person responsible for undertaking the discharge. A mere contractual obligation may not have sufficient weight to regulate compliance with trade waste discharge requirements.

#### **4.8 Environment, public safety and performance standards**

Sydney Water is required by the Sydney Water Act, its Operating Licence and environmental laws to ensure that its systems and services meet quality and performance standards.

Relevantly, the actions of Services Sydney or its customers could cause the following:

- sewage overflows (for example, there could be overflows from Sydney Water's network after the point of connection with Services Sydney in the event that Services Sydney undertook to take a certain volume of wastewater and did not in fact do so, similarly defects in the customers sewerage infrastructure prior to connection with Sydney Water's system could cause overflows);
- exceeding the toxicity requirements imposed on Sydney Water under environmental laws and its Operating Licence (for example, if Services Sydney customers discharge untreated industrial wastes into the Sydney Water system); and
- a pollution incident (for instance, an overflow could occur in that part of the sewerage system used by Services Sydney, an incident could occur at a point of connection or as a result of a backflow from the Services Sydney infrastructure).

Sydney Water would not be exempt from its statutory and Operating Licence obligations even if the breach of these standards was caused by an act of Services Sydney or one of its customers.

##### **(a) *System Performance Standards***

Section 14 of the Sydney Water Act provides that Sydney Water is:

*(c) to ensure that the systems and services meet the quality and performance standards specified in the operating licence in relation to water quality, service interruptions, pricing and other matters determined by the Governor and set out in the operating licence.*

Clause 7 of the Operating Licence requires Sydney Water to comply with the Minister's system performance standards (contained in schedule 4 to the Operating Licence). With respect to sewage overflows, these standards provide:

*Sydney Water must ensure that, on an annual basis, 96% of all properties connected to its Sewerage system will not have their land affected by a sewage overflow on their land from, or as a result of a sewer owned or operated by Sydney Water.*

*Number of properties affected by a sewage overflow divided by total number of properties, expressed as a percentage and then subtracted from 100. Where a sewage overflow occurs again in the reporting period, the property is to be counted each time it experiences an overflow regardless of the number of times any property is so affected.*

The standards may need to be amended to account for matters such as sewage overflows related to Services Sydney' activities.

(b) ***Environmental Licences***

Sydney Water holds various licences under the *Protection of the Environment Operations Act 1997* ("**POEO Act**") for its sewage treatment facilities. These licences contain numerous conditions including in relation to sewage overflows, discharge quality and pollution incidents.

Breach of a licence condition is a strict liability offence and limited defences apply. Section 64 of the POEO Act specifies that it is an offence to breach a licence condition. It provides:

(1) *Offence*

*If any condition of a licence **is contravened by any person**, each holder of the licence is guilty of an offence.*

*Maximum penalty (except where it is an offence relating exclusively to noise):*

- *in the case of a corporation—\$250,000 and, in the case of a continuing offence, a further penalty of \$120,000 for each day the offence continues, or*
- *in the case of an individual—\$120,000 and, in the case of a continuing offence, a further penalty of \$60,000 for each day the offence continues.*

(2) *Defence*

*The holder of a licence is not guilty of an offence against this section if the holder establishes that:*

- (a) *the contravention of the condition was caused by another person, and*
- (b) *that other person **was not associated with the holder** at the time the condition was contravened, and*
- (c) *the holder took all reasonable steps to prevent the contravention of the condition.*

*A person is associated with the holder for the purposes of paragraph (b) (but without limiting any other circumstances of association) if the person is an employee, agent, **licensee**, contractor or sub-contractor of the holder.*

Sydney Water's environmental licences would need to be amended to account for Sydney Water's operations.

(c) ***Pollution Incidents generally***

The POEO Act creates various offences in relation to pollution incidents. Many of these provisions could create liability for Sydney Water if acts or omissions of Sydney Water caused an environmental incident. For example:

**Leaks and Spills**

Section 116 of the POEO Act provides:

- (1) *If a person wilfully or negligently causes any substance to leak, spill or otherwise escape (whether or not from a container) in a manner that harms or is likely to harm the environment:*
- (a) *the person, and*
  - (b) *if the person is not the owner of the substance, the owner,*
- are each guilty of an offence.*

The term "**owner** of a substance includes, in relation to a substance that has leaked, spilled or otherwise escaped, the person who was the owner of the substance immediately before it leaked, spilled or otherwise escaped."

It is arguable that Sydney Water would be the owner of the sewage where it passes through its reticulation system.

***Pollution generally***

Section 257 of the POEO Act provides:

- (1) *In any proceedings under this Act, the occupier of premises at or from which any pollution occurs is **taken to have caused the pollution**, unless it is established that:*
- (a) *the pollution was caused by another person, and*
  - (b) *the other person was not associated with the occupier at the time the pollution occurred, and*
  - (c) *the occupier took all reasonable steps to prevent the pollution.*

*A person is associated with the occupier for the purposes of paragraph (b) (but without limiting any other circumstances of association) if the person is an employee, agent, licensee, contractor or sub-contractor of the occupier.*

- (2) *Subsection (1) does not prevent proceedings being taken under this Act against the person who actually caused the pollution.*

Section 258(2) provides that:

- (2) *In any proceedings under this Act, the **holder of a licence** under this Act in respect of any premises at a particular time or period **is taken to be the occupier** of the premises at that time or during that period.*

The term premises is broadly defined to include:

- (a) *a building or structure, or*  
(b) *land or a place (whether enclosed or built on or not), or*  
(c) *a mobile plant, vehicle, vessel or aircraft.*

Sydney Water holds a licence for each of its treatment plants and the associated reticulation systems. Accordingly, Sydney Water could be exposed to criminal liability for actions of a third party service provider or its customers.

#### **4.9 System efficiency**

In the event that retail competition were proposed, changes to the regulatory environment would also be required to ensure that all providers of sewerage services in the Sydney region are able to provide those services in an efficient and competitive manner.

##### ***Billing Arrangements***

Each of the regulatory regimes for the provision of sewerage services in NSW provide a mechanism for the efficient billing of customers including meter reading.

Services Sydney proposal suggests that it intends:

- to develop a billing/customer relations platform alone or in partnership with an existing utility; and
- to obtain information on volume flow from existing trade waste meters and/or on a formula derived from potable water use.

If this is the case rules would need to be established governing arrangements for the metering of water supply and wastewater of customers that remain with the incumbent retail supplier and for those customers that switch to an alternative retail supplier. For instance arrangements would need to be established for:

- meters to be read and placed into a database which both parties can access (subject to any constraints imposed by privacy laws); or
- meter reading by Services Sydney.

##### ***Powers to carry out the services***

Sydney Water has a number of statutory powers and entitlements that facilitate its ability to provide sewerage services. These powers have been established in the public interest as they allow for efficient delivery of this service. Without some or all of these entitlements it would be difficult and inefficient for any third party to provide sewerage services. Generally these powers are also held by other SSPs under their regulatory arrangements.

Sydney Water's powers include:

(a) **Property rights**

Sydney Water has statutory rights under the Sydney Water Act to enter and take possession of land and to construct and maintain works. All other NSW SSPs are granted similar types of powers under their statutory regimes. Sydney Water also has rights to compulsorily acquire an interest in land and to require the removal of structures which interfere with its works.

It is likely that the Services Sydney proposal will require easements and other appropriate interests in land to be negotiated and obtained from a large number of land owners

Section 38 of the Sydney Water Act authorises Sydney Water to enter onto land for the purposes of maintaining infrastructure and operations, valuation, metering, and investigation without the consent of the land owner (in specified circumstances). These powers are essential for the efficient provision by Sydney Water of its water and sewerage services. In particular these powers are utilised by Sydney Water when undertaking meter reading or inspecting connection works or trade waste monitoring works.

#### **4.10 Establishing a framework for retail contestability**

It is clear from the experience in the gas and electricity industries that regulatory arrangements can be put in place to facilitate retail contestability. Whether it is efficient to do so and what the nature and scope of the relevant regulatory arrangements should be requires detailed consideration and is a matter to be determined as a matter of Government policy.

The review of the existing framework contained in this section shows that the introduction of retail competition for sewerage services based upon the declaration application lodged by Services Sydney would require substantial amendments to the existing regulatory regime.

In the absence of evidence from the New South Wales Government as to its legislative intent following declaration, the future scenario must exclude consideration of the introduction of any particular reform agenda to facilitate declaration. As noted earlier, this is not to say that the New South Wales Government could not introduce such a reform agenda. Rather, it highlights the particular nature of this application where the Council is being asked to consider declaration prior to the issue of appropriate market structure being settled.

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## **5. Testing for a promotion of competition**

### **5.1 How competition is promoted**

In deciding whether declaration will lead to a promotion of competition, the Council has applied a two limbed approach which examines:

- (a) whether Sydney Water has the ability and incentive to exercise market power to adversely affect competition in a dependent market; and
- (b) whether the structure of the dependent market is such that declaration would, by constraining the exercise of market power by Sydney Water to adversely affect competition in the dependent market, promote competition.

These issues must be examined in the context of the terms and conditions on which supply would be available in the dependent market post-declaration<sup>35</sup>. Accordingly, they involve a

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<sup>35</sup> See para 6.55 of the Draft Recommendation.

consideration of the price and service offered in the dependent market with and without declaration. They cannot simply be considered in the abstract.

New entry, or the threat of new entry, will promote competition because the actual or potential new entrant can take customers away from existing market participants. It can do so because it has a "better" service offering for the customer. The offering may be better in terms of price quality, convenience or some other attribute which the customer values.

If a new entrant offers a product which is more expensive and does not deliver some other benefit which offsets the additional cost, that new entrant is unlikely to be successful and is unlikely to impose much of a competitive constraint on existing market participants.

A reduction in barriers to entry will promote competition precisely because it causes the incumbent to improve its product offerings so as to provide a disincentive to actual entry. Because of the incentive which threatened entry imposes on existing market participants, the benefits of competition can arise without actual entry. New entry which does not offer some improvement in pricing or quality is unlikely to be successful. Similarly, the threat of such entry is unlikely to cause any competitive response on the part of the incumbent.

Accordingly, there needs to be evidence that potential entry is viable<sup>36</sup> and that the product offering from any such new entrant or entrants has features which are likely to be attractive in some way to potential customers.

## 5.2 Evidence of ability and incentive to exercise market power

In considering the ability and incentive to exercise market power the Council identifies a denial of access as satisfying the "*market power requirement under criterion (a)*"<sup>37</sup>. The Council then refers to material contained in Services Sydney's application which describes discussions which occurred between Services Sydney and Sydney Water in relation to Services Sydney's "Sustaining the City Proposal".

It is not clear from the Draft Recommendation, whether the fact that no agreement about the Sustaining the City Proposal resulted from those negotiations is considered by the Council to be a denial of access by Sydney Water<sup>38</sup>. Sydney Water wishes to make it clear that whilst it did not pursue the Sustaining the City Proposal, there has been no request for and subsequent denial by it of access to the services which are the subject of the declaration application.

There have been many discussions and work projects undertaken by Sydney Water and the NSW Government in relation to various proposals which have been advanced by Services Sydney. Attached as Confidential Appendix 3 is a chronology of the events which occurred between Services Sydney and Sydney Water since 1998. That chronology demonstrates that there has been extensive engagement on a range of issues and potential opportunities. However, a viable project has not emerged from that process.

There may be many reasons why proposals do not proceed of which the lack of viability of a proposed project is one. Any conclusion that there had been a denial of access by Sydney

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<sup>36</sup> Whether potential entry is viable asks whether there is scope for viable entry. In itself it is not a question of the viability of any individual entity. If there is scope for viable entry, the Council must then consider whether there is evidence that, in the relevant time frame, either such entry is likely or there is likely to be a credible threat of such entry so as to prompt a competitive response on the part of the existing market participants.

<sup>37</sup> at para 6.52.

<sup>38</sup> The Council indicates that it is not clear whether the access which is the subject of the application is the same as what was sought under the Sustaining the City proposal. It may be from this that the Council has concluded that there was no denial of access so as to evidence market power. In para 6.55 et seq the Council considers whether, in the absence of evidence of an actual use of market power, Sydney Water has the requisite ability and incentive to exercise market power.

Water could only be based on clear and unambiguous evidence and a denial of access itself is not necessarily an indication of an exercise of market power.

### **5.3 The structure of the dependent market**

The second limb of the test which the Council has posed involves a consideration of whether the structure of the dependent market is such that, notwithstanding any market power on the part of Sydney Water, it is not able to exercise that power so as to adversely affect competition in the dependent market.

The Council found that:

- (a) there is no constraint on Sydney Water pricing the services of which declaration is sought,<sup>39</sup> and
- (b) overpricing those services could limit the ability of a new entrant to compete against Sydney Water in the retail collection market because the price it paid for transportation services would prevent it from matching Sydney Water's price to customers.

Sydney Water does not contend that there is any regulatory constraint on the pricing of the services of which declaration is sought. Sydney Water's argument is to say that even if one assumes that Sydney Water has the ability and the incentive to set high prices for the provision of transmission and interconnection services, the structure of the downstream market means that entry will not promote competition.

There are two key issues which Sydney Water invites the Council to consider in relation to the structure of the dependent market. First, the fact that on current retail pricing as determined by IPART, it is not economically viable for Services Sydney or any other provider to provide the proposed retail services. Secondly, the nature and extent of the regulation in the relevant dependent market and the cost structures inherent in the services of which declaration is sought mean that there will not be any improvement to the terms and conditions on which services are provided to customers in that market.

### **5.4 The dependent market: third party entry is not economically viable**

IPART regulates Sydney Water's prices, including the price for the provision of sewerage services. Declaration of the sewage transport service would require the current integrated wastewater tariff to be "unbundled", to determine a separate charge for use of the sewage reticulation system.

In Sydney Water's opinion, the current integrated sewerage tariff, as determined by IPART, does not reflect the full extent of the costs that would be faced by a new entrant providing retail sewage collection services.

As set out in its initial submission, Sydney Water's preliminary analysis shows that for competition to be promoted in a dependent market, the current integrated wastewater tariff would need to be unbundled in a deliberately "pro-competitive" manner – essentially by instituting some form of "cross-subsidy" in favour of the transport function. Such an approach would not be consistent with the pricing principles in Part IIIA of the TPA.

Sydney Water's current integrated sewerage tariff, as determined by IPART, does not reflect the full extent of the costs that would be faced by a new entrant providing retail sewage collection services.

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<sup>39</sup> Draft Recommendation, paras 6.63 and 6.64.

IPART last determined wastewater prices for Sydney Water in 2003. The average annual price per household for wastewater services in 2003 - 2004 was \$338.54.<sup>40</sup> In 2004 - 2005, this rises with inflation to \$346.66. IPART anticipated a return<sup>41</sup> of 5.9%<sup>42</sup> on Sydney Water's Regulatory Asset Base (RAB), the value of which (for the sewerage service alone) is calculated by IPART to be approximately \$4.7 billion.<sup>43</sup>

IPART's valuation of the regulatory asset base for the sewerage service (\$4.7 billion), is significantly lower than the valuation of those assets were Sydney Water operating in a competitive market environment, i.e., their *optimised depreciated replacement* cost (ODRC), which is \$10.7 billion. It is widely recognised – including by both the Council and by the ACCC - that optimised depreciated replacement cost represents the best estimate of the value that would attach to assets in a competitive market environment. ODRC represents the capital cost that faced by a hypothetical new entrant into the market choosing to buy second hand assets (and incurring the cost of earlier replacement when those assets reach the end of their useful life) as compared with the cost of rebuilding a system from scratch.

The *hypothetical new entrant test* (HNET) is the correct standard by which to test prices (and the associated question of asset value), because it defines the point at which entry into a market can be profitable. Under the HNET, achieved returns (on assets valued at ODRC) above a company's weighted average cost of capital are a prima facie indicator of monopoly profits, while returns below the HNET level are, by definition, less than those required for entry into a market to be viable. The Council has previously endorsed the use of HNET to value assets in its assessment of applications under the coverage provisions of the Natural Gas Pipelines Access Code, which applies essentially the same criteria as Part IIIA of the TPA.<sup>44</sup>

IPART's most recent price determination provides for Sydney Water to earn an expected return of 5.9% on its regulatory asset base.<sup>45</sup> In other words, the total price that Sydney Water can charge to provide sewerage services is currently set such that:

- (a) it is expected to earn a rate of return (5.9%); and
- (b) its return is in any case based on an asset value (\$4.7 billion) of around half the capital costs that would be faced by a hypothetical new entrant in the sewerage services market.

To deliver a 7.0% return on capital on the ODRC value of Sydney Water's sewerage assets (\$10.7 billion), and a return of capital (depreciation) consistent with this valuation, would require an 88% increase in Sydney Water's annual revenue from the wastewater sector.

Further, this analysis does not take into account the cost of providing a distinct retailing service for the sewerage component of what is presently a combined water and wastewater retail service. Information developed in the course of regulatory proceedings in the electricity sector suggest that the operating costs for providing a utility retailing service are around \$65

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<sup>40</sup> IPART determination for 2003-05, p28. In 04-05, and value is  $338.5 \times (1 + \text{inflation})$ , or \$348.70.

<sup>41</sup> Rate of return on capital is given by the real pre-tax Weighted Average Cost of Capital (WACC).

<sup>42</sup> IPART expects ROR on combined RAB (for water and sewerage assets) to be 5.9% in 2003/04 and 5.6% in 2004/05. IPART Determination for 2003-05, p22.

<sup>43</sup> The RAB was derived under the optimised deprival value methodology: see IPART, Determination No. 8, 2000, *Sydney Water Corporation Prices of Water Supply, Sewerage and Drainage Services Medium term price path from 1 October 2000*, 12 September 2000.

<sup>44</sup> "Moomba to Sydney Pipeline System: Revocation Applications Under the National Gas Code", NCC Final Recommendations, November 2002, p199, para 7.396.

<sup>45</sup> Sydney Water's return (WACC) falls within a range of real pre-tax WACC of 5.2% - 6.7% earned by all metropolitan water agencies. Appendix 7 (p66) of IPART report.

per customer per year,<sup>46</sup> even after taking account of the fact that related retailing services are also being provided by the same entity. Adding this amount to the estimate derived above implies a total annual average sewerage services charge for households of \$702 per annum, compared to the 2004 - 2005 charge, \$346.66.

In sum, the wastewater service currently operated by Sydney Water is seriously underpriced, by reference to the HNET.

## **5.5 The dependent market: nature and scope of the regulation by IPART**

As can be seen from the detail of the regulatory environment for the supply of services at a retail level provided in section 4 and in Appendix 2, the pricing and other terms and conditions which are available to customers means that the conditions in the downstream market, even though there is monopoly supply in that market are consistent with the conditions which one would expect to find in a competitive market because of the operation of those regulatory arrangements.

For competition to be promoted, the Council will need to be satisfied that the prospect of new entry is material and that it is likely to deliver benefits to customers over and above those which are currently available. Contributing to the inherent unlikelihood of that occurring are the issues of wet weather flows and overflows.

### ***Wet weather flows***

Significant variation in flow quality and quantity occurs during wet weather when flows can be several times those in dry weather. While a new entrant is likely to want only the dry weather component of their customer's flow, the avoided costs to Sydney Water will be low as the network and treatment infrastructure is basically sized for wet weather and only a proportion of operating costs are flow related.

If a new entrant chooses to manage the wet weather components of their customers' flow, it is, in fact, impossible to directly measure the contribution of the competitors customers to wet weather flows in the sewerage system. Rain rarely falls uniformly over the sewage catchment, and it is unlikely that the distribution of the competitor's customers would be uniform within the area over which rain fell.

### ***Overflows***

When the capacity of the sewerage system is exceeded, overflows occur at specifically designed overflow points. Overflows from the sewerage system have the potential to impact both aquatic ecosystems and public health. The Sewer Overflow Licencing Project EISs (SOLP) prepared in 1997 identified the most cost effective level of overflows as being 20-40 overflow events per ten years for most systems .

A new entrant would be required not only to contribute to overflow abatement costs, they would also need to contribute to the other major maintenance, environmental improvement and structured rehabilitation requirements of the sewerage network upstream of the interconnection point over the life of the access period. These costs are expected to be substantial.

Their level of contribution would be related to their proportion of customers, but practical arrangements for recovering these costs could be difficult if their customer base changes substantially over the period of access.

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<sup>46</sup> Estimate is based on data from the retail electricity sector. Source: IPART "Review of regulated retail prices for electricity to 2007, Draft Report and Draft Determination", p10.

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## **6. Public Interest**

### **6.1 Approach to the criterion**

Criterion (f) does not constitute an additional positive requirement which can be used to call into question the result obtained from the application of criteria (a) to (e). However, because criteria (a) to (e) are satisfied, it does not mean that there is a presumption that declaration will not be contrary to the public interest.

The Council is required to be affirmatively satisfied of each of the criteria.<sup>47</sup> A requirement to be affirmatively satisfied requires that the Council be satisfied that the facts to support the criteria are met. Presumptive satisfaction of criterion (f) once the other criterion are met is at odds with the positive obligation on the Council to satisfy itself as to the public interest.

The criterion therefore involves a first principles assessments of the factors which indicate that declaration is in the public interest and those which indicate it is contrary to the public interest.

The use of the double negative in criterion (f) means that the Council is not required to find that declaration is positively in the public interest. It is sufficient if it is not contrary to the public interest.

The balance of this section examines the material available which assesses whether declaration is in the public interest.

### **6.2 The notion of the public benefit**

As the Council has noted in its Guide to Part IIIA of the TPA a key public interest consideration is the net impact of declaration on economic efficiency. This is consistent with the approach which the Tribunal has taken to the interpretation of the public interest.<sup>48</sup> If declaration is likely to lead to an inefficient market structure, then it is not consistent with the public interest.

Sydney Water is supportive of any initiative that delivers benefits to customers in its area of operations and would support the introduction of a system of retail contestability for the provision of sewerage services in the event that the NSW Government determined that changes to the existing regulatory arrangements were efficient and would deliver relevant benefits to the community as a whole. However, the material contained in this submission and the Frontier Economics Report demonstrates that declaration is likely to lead to a less efficient market structure than currently exists and than may otherwise develop from a more comprehensive industry structure review.

### **6.3 Impact on policy development**

In considering the public interest, the Council needs to consider the impact which the proposed declaration will have on future developments in the water industry and, in particular, the extent to which it may impede or preclude other reform initiatives.

The net benefit to society of competition in the market depends on the extent to which the gains are expected to exceed the costs. The introduction of access arrangements in water will require significant regulatory oversight and the development of complex contracts covering not only the price of access but also the metering and payment systems, and service quality and environmental aspects, amongst other things. This is true in other industries too but the gains

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<sup>47</sup> *Re: Sydney International Airport*.

<sup>48</sup> *Re QCMA and Defiance Holdings* (1976) ATPR 40-012 at p.17,242.

from common carriage competition may be lower in the water industry than in say, electricity and telecommunications if:

- The configuration of the supply system hinders the introduction of competition in the supply of bulk water, water treatment, or treatment of wastewater. This may be the case if the majority of water is obtained from a single source or if the majority of treatment is undertaken in a single large scale plant;
- A relatively smaller share of the total costs of service are in the potentially competitive areas (supply of bulk water, treatment and retailing); and
- The benefit of introducing competition in the potentially contestable areas is lower in water than in other industries. If the price of water is lower than the price of electricity or telecommunications, the value of any efficiency gains will be lower.

If declaration were to occur and a legislative and regulatory reform program were implemented to accompany it, then the structures that would necessitate, would preclude alternate forms of reform programs being introduced.<sup>49</sup> Given the scope of the reforms which are contemplated by the NSW Government's Metropolitan Water Plan, there are already on foot significant plans to address water sustainability and environmental issues, which are at the core of the benefits which the Services Sydney proposal contemplates. Given the absence of any other proposals to pursue an initiative of this type, it is the Services Sydney proposal which must be the focus of the Council's analysis.

The fact that nowhere else in the world uses the model advocated by Services Sydney to deliver more efficient and competitive water and wastewater services, does not mean that declaration should not be granted but does suggest that the Council needs to have strong evidence before it that benefits will accrue. The Council has asserted that there are "direct and dynamic benefits of competition". In Sydney Water's submission, given the speculative nature of the potential entry and the regulated terms and conditions in the downstream market, it is difficult to see the evidentiary basis for this conclusion.

## **6.4 Consumer protection and public safety**

Public policy requirements mandate that any provider of sewerage services be regulated.

IPART is currently the principal regulator of sewerage services supplied in Sydney. This is because in the Sydney region Sydney Water is the only provider of sewerage services and Sydney Water is regulated by IPART under its Operating Licence. The existing regulatory arrangements do not provide for a regulator or adequate regulatory arrangements in the event that sewerage services are provided by a third party such as Services Sydney.

## **6.5 Environmental issues**

One of the features which Services Sydney emphasises about its proposal is the environmental aspects of its proposed treatment plant and its proposed method of disposal.

It is important to note that the plans developed by Services Sydney contemplate that Stage 1 of the proposed development will still utilise the ocean outfalls of Sydney Water. It is only when Stage 2 is progressed that this position will change. Accordingly, any finding of

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<sup>49</sup> The Council has previously recognised the relevance of Government policy to the assessment of the public interest. In the application by Virgin Blue for declaration of airside services at Sydney Airport, the Council considered the extent to which declaration would be contrary to the public interest because it may conflict with public policy and the extent to which benefits may be foregone by declaration in not allowing other arrangements to develop. Final Recommendation paras 10.8 and 10.32-10.40. Similar considerations would probably be likely if a declaration application had been made for electricity transmission services in the period between the enactment of Part IIIA and the introduction of the National Electricity Code.

environmental benefits derived from the alternate disposal method proposed must be accompanied by a finding that the Stage 2 development is, in fact, likely to proceed.

In addition, the question of what is appropriate environmental treatment of sewage and what is the best method of disposal is one which is the subject of detailed debate and discussion. Sydney Water is actively committed to environmentally sustainable methods of treatment and disposal and its regulatory environment places significant obligations on it in this regard.

Detailed work has been done on the environmental performance of the three major coastal treatment plants. These plants are based on primary treatment.<sup>50</sup> This level of treatment, in conjunction with the three deepwater outfalls, ensures the protection of the beaches along with ensuring that there are no significant ecological or environmental impacts in the vicinity of the discharge outfalls.

An extensive Environmental Monitoring Program (EMP) was developed to measure the performance of the deepwater ocean outfalls. A wide range of criteria related to marine impacts were assessed. The EMP was conducted from 1989 to 1993, mainly in the area from Broken Bay to the Royal National Park, from the shoreline up to 15 kilometres offshore. The former Environment Protection Authority (EPA) was responsible for the implementation and delivery of the EMP from January 1990.

The EMP addressed the following questions of concern to the public concern:

- (a) What effect will the outfalls have on the marine environment?

During EMP monitoring there were no sustained effects of the outfalls on the overall diversity of biological communities found near the deepwater ocean outfalls.

- (b) Will bathing waters be suitable to swim in?

Bathing waters at Sydney's ocean beaches are now suitable to swim in and beaches are free from visible sewage material.

- (c) Will fish be safe to eat?

There is no evidence that the commissioning of the deepwater outfalls has led to an increase in levels of chemical contamination in fish that is of concern.

In addition, Sydney Water's historical water quality data and Beachwatch data indicate a significant improvement in recreational water quality at Sydney's ocean beaches since the commissioning of the deep ocean outfalls. Beachwatch October 2003, stated, "*that stormwater is now the major pollution issue affected Sydney's ocean and harbour beaches.*" This clearly implies that sewage outflows are no longer considered to have a major impact on Sydney's recreational ocean beaches.

Sydney Water's commitment to sustainable development and sound environmental outcomes is also demonstrated in its development of renewable energy from its sewage treatment processes and in its management of biosolids.

### ***Renewable energy generation***

Sydney Water generates renewable energy from two cogeneration facilities at the Malabar and Cronulla sewage treatment plants. These plants use the methane produced as a treatment by-product of processes as a fuel source. Since the first plant was commissioned at Malabar

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<sup>50</sup> Primary treatment is a level of treatment that removes grit, screenings, settleable and gross organic matter, and floatable grease.

around three years ago, both plants have in total generated more than 42 million kWh of electricity, 13 million kWh of that during 2001/02.

When combined with the 2.5 per cent of electricity purchased as Green Power, 5.8 per cent of Sydney Water's overall energy needs were generated from renewable sources in 2001/02. This is equivalent to taking around 7,350 family cars off the road and is enough to power more than 2,800 average Sydney homes for a year. As methane is a greenhouse gas, not only does the capture of methane from treatment plant processes reduce the need for electricity sourced from burning fossil fuels, it has also reduces direct emissions of this greenhouse pollutant into the atmosphere.

The Malabar plant was commissioned in 1999 and in its third year of operation produced more than 11 million kWh of electricity, displacing approximately 11,075 tonnes of greenhouse gases. The plant received accreditation from the Federal Office of the Renewable Energy Regulator during 2001/02.

### ***Biosolids Management***

Sydney Water's Biosolids Program meets world's best practice in terms of the percentage of captured biosolids recycled. However, not all solids present in the sewage entering Sydney Water's sewage treatment plants were captured for recycling as biosolids. Sydney Water's coastal sewage treatment plants removed 53 per cent of solids from incoming sewage, while inland sewage treatment plants removed more than 99 per cent. Suspended solids not captured by were discharged to the environment with the effluent.

In 2003 100 per cent of captured biosolids (51,049 dry tones) were beneficially reused. This result is due to Sydney Water's stringent source control program and improved processing facilities at the sewage treatment plants.

