

**APPLICATION BY SERVICES
SYDNEY FOR DECLARATION
OF SEWAGE TRANSMISSION
AND INTERCONNECTION
SERVICES PROVIDED BY
SYDNEY WATER**

DRAFT RECOMMENDATION

National Competition Council

12 August 2004

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1 Recommendation

- 1.1 On 3 March 2004, the National Competition Council (the Council) received an application¹ under Part IIIA of the *Trade Practices Act 1974* (TPA) from Services Sydney Pty Ltd (Services Sydney) for a recommendation to declare the following services currently provided by Sydney Water Corporation Ltd (Sydney Water):
- (1) a service for the transmission of sewage via Sydney Water's Sydney Sewage Reticulation Network from the Customer Collection Points to the Interconnection Points (Transmission Service); and
 - (2) a service for connection of new trunk main sewers owned and operated by Services Sydney to the existing Sydney Sewage Reticulation Network at the Interconnection Points (Interconnection Service),
- (collectively referred to as the "Services").
- 1.2 The Council released an issues paper asking for public comment on matters arising from Services Sydney's application for declaration of the Services. A list of submissions received by the Council is set out in Appendix C.
- 1.3 The Council has taken into account the submissions received, information provided during meetings with specific parties and organisations, and other information obtained from publicly available sources.
- 1.4 Services Sydney's application defined the Interconnection Service by reference to the interconnection of Services Sydney's prospective trunk sewers with Sydney Water's system at defined interconnection points. The Council does not consider it appropriate to define the interconnection service in a way that is limited to meeting only Services Sydney's business model. The Council further concluded that there are three relevant facilities being each of the North Head, Bondi and Malabar Reticulation Networks rather than a single facility defined by the applicant as the Sydney Sewage Reticulation Network. Accordingly, Services Sydney's application constitutes six applications for declaration being for each of the two services defined in terms of use of each of the three facilities.

¹ A copy of the application, and its attachments, is available at www.ncc.gov.au

- 1.5 The Council's draft recommendation is that each of the following services be declared for a period of 15 years under Part IIIA of the 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.
- 1.6 This is a draft recommendation. The Council seeks the views of interested parties on any matter raised in the draft recommendation or the application by Services Sydney, and will take these into account in preparing its final recommendation.
- 1.7 Written submissions should be directed to the Executive Director, National Competition Council, GPO Box 250B, Melbourne VIC 3001, and emailed to info@ncc.gov.au by **Friday, 24th September 2004**.
- 1.8 Unless confidentiality is requested, submissions will be treated as public documents and published on the Council's web page. Parties wanting to submit information on a confidential basis must discuss the matter with the Secretariat prior to submission.
- 1.9 Any queries should be directed to Nevenka Codevelle on 02 9222 9289 or Michelle Groves on 03 9285 7476.

Abbreviations and glossary of terms

ACCC	Australian Competition and Consumer Commission
Bondi Reticulation Network	Sydney Water's sewage reticulation network servicing the Bondi sewage treatment plant
COAG	Council of Australian Governments
Council	National Competition Council
CPA	Competition Principles Agreement
Customer Collection Point	Means the point (known as the boundary trap) at which the sewage pipe on a customer's premises connect with the Sydney Sewage Reticulation Network.
EPA	Environment Protection Authority
Interconnection Point	Means a point at or near which the Sydney Sewage Reticulation Network connects to the North Head sewage treatment plant, Bondi sewage treatment plant, and Malabar treatment plant.
Interconnection Service	A service for connection of new trunk main sewers owned and operated by Services Sydney to the exiting Sydney Sewage Reticulation Network at the Interconnection Points.
IPART	Independent Pricing and Regulatory Tribunal
IPART Act	Independent Pricing and Regulatory Tribunal Act 1992 (NSW)
Malabar Reticular Network	Sydney Water's sewage reticulation network servicing the Malabar sewage treatment plant
NCP	National Competition Policy
North Head Reticulation Network	Sydney Water's sewage reticulation network servicing the North Head sewage treatment plant

Part IIIA	Part IIIA of the Trade Practices Act 1974
Recycled Water Market	The market for the provision of water (both recycled and potable) for the range of uses for which recycled water is considered appropriate (see para 6.45).
Service(s)	The Interconnection Service and the Transmission Service, each a “Service” and collectively the “Services”.
Services Sydney	Services Sydney Pty Ltd
Sewage Collection Market	The retail market for sewage collection services which includes the bundled provision of: <ul style="list-style-type: none"> (a) the collection of sewage from customer premises; (b) the transmission of the sewage from the customers premises; (c) the treatment of the sewage to whatever environmental standard is required; and (d) the disposal of the treated sewage and solids.
Sewer mining	The extraction of raw effluent from the sewage reticulation network by an entity other than the operator of the reticulation network (see paragraph 4.10).
SOPA	Sydney Olympic Park Authority
Sydney Sewage Reticulation Network	Sydney Water’s sewage reticulation network for the transmission of sewage to sewage treatment plants in the Sydney area
Sydney Water	Sydney Water Corporation
TPA	Trade Practices Act 1974
Transmission Service	A service for the transmission of sewage via Sydney Water’s Sydney Sewage Reticulation Network from the Customer Collection Points to the Interconnection Points.

Tribunal	The Australian Competition Tribunal
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2 Declaration criteria

- 2.1 Under the declaration provision of Part IIIA of the TPA, a business wanting access to a particular service must apply to the Council to have the service declared. The Council considers the application before forwarding a recommendation to the designated Minister,² who decides whether or not to declare the service. The Minister's decision is reviewable by the Australian Competition Tribunal (the Tribunal). Declaration of a service would entitle the applicant to seek access, either through an agreement with the service provider or, in default of an agreement, through arbitration by the Australian Consumer and Competition Commission (ACCC).
- 2.2 The Council cannot recommend that a service be declared unless it is satisfied of all of the following matters, which are set out in section 44G(2) of the TPA:
- (a) that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia), other than the market for the service;*
 - (b) that it would be uneconomical for anyone to develop another facility to provide the service;*
 - (c) that the facility is of national significance, having regard to:*
 - (i) the size of the facility; or*
 - (ii) the importance of the facility to constitutional trade or commerce; or*
 - (iii) the importance of the facility to the national economy;*
 - (d) that access to the service can be provided without undue risk to human health or safety;*
 - (e) that access to the service is not already the subject of an effective access regime; and*
 - (f) that access (or increased access) to the service would not be contrary to the public interest.*
- 2.3 The Council must also consider whether it would be economical for anyone to develop another facility that could provide *part* of the service (s. 44F(4), TPA).

² In this matter, the Hon. Robert Carr, MP, Premier of New South Wales.

3 Background

- 3.1 In its application, Services Sydney described itself as an “*infrastructure development company established to implement and operate specific solutions for sewage and water management in New South Wales*” (Services Sydney 2004a, p.1).
- 3.2 In 1998, Services Sydney commenced a review of Sydney Water’s sewerage and waste water operations in the Sydney area. In response to a number of factors including the need for significant investment to maintain the existing sewerage system, the use of minimal sewage treatment and ocean outfalls, and water supply and demand imbalances, Services Sydney developed its own proposal for waste water treatment and management referred to as “Sustaining the City”. This proposal was presented as an alternative to Sydney Water’s “WaterPlan 21” proposal for the long term management of sewage and water in the Sydney area.
- 3.3 The core infrastructure features of the Sustaining the City proposal are (Services Sydney 2004a, pp. 11-12):
- (a) The establishment of a new state-of-the-art water reclamation plant with integrated biosolids handling and additional wet weather overflow storage facilities.
 - (b) New trunk main sewers for the transmission of sewage that will interconnect with Sydney Water’s Sydney Sewage Reticulation Network at points just before where the main trunk sewers connect with each of the North Head, Bondi and Malabar sewage treatment plants.
 - (c) The construction of water conduits to return tertiary treated water to Sydney’s catchment dams or for other uses such as agricultural or environmental flows as a second stage of the proposal referred to as the “Water to Rivers Project”.
- 3.4 In its application, Services Sydney stated that in 1999 it entered into discussions with Sydney Water for the development of the key infrastructure developments making up the Sustaining the City proposal. A Heads of Agreement was executed and a pre-feasibility study carried out in respect of the future development of the infrastructure projects. Sydney Water subsequently terminated the agreement and confirmed its intention to proceed with WaterPlan 21. Services Sydney presented the Sustaining the City proposal to the

New South Wales Government in September 2002. The proposal has not to date been accepted.

- 3.5 In March 2004, Services Sydney lodged its application for declaration of the Services under Part IIIA of the TPA. The application stated that if it was successful, Services Sydney intended to compete with Sydney Water for the provision of retail sewage collection services within the Sydney area. Services Sydney's business model involves competing for individual customers principally on the basis that its effluent treatment would be more environmentally friendly than the ocean outfall system used by Sydney Water. The pricing structure is expected to be similar to that of Sydney Water and would be based on either a fixed charge or on a volumetric basis depending on the customer type (Services Sydney 2004a, p. 14).
- 3.6 Services Sydney considers its business model to be commercially feasible. It argues that access to the Services is an essential prerequisite to implementation of its proposal. Accordingly, declaration of the Services under Part IIIA of the TPA is sought.

4 The service, the facility and the service provider

The service

4.1 The starting point for applying each of the declaration criteria is to identify the service provided by means of the infrastructure facility.

4.2 The types of service that can be declared under Part IIIA are defined in section 44B of the TPA:

'service' means a service provided by means of a facility and includes:

(a) the use of an infrastructure facility such as a road or railway line;

(b) handling or transporting things such as goods or people;

(c) a communications service or similar service;

but does not include:

(d) the supply of goods; or

(e) the use of intellectual property; or

(f) the use of a production process

except to the extent that it is an integral but subsidiary part of the service.

4.3 For the purposes of Part IIIA, the relevant service is that which is bought and sold, or that for which there are potential transactions (Duke EGP decision, para 68). That is because the declaration process provides for access to the services provided by a facility (or part of a facility), rather than the facility itself. Conversely, if an application for declaration sought declaration of two or more "services" that are so integral to the delivery of one another that one cannot be reasonably provided without the other, it would be appropriate to regard the application as relating to only one integrated service.

4.4 Services Sydney has defined the services the subject of the application for declaration as the:

- (1) *Transmission Service* – being a service for the transmission of sewage via Sydney Water’s Sydney Sewage Reticulation Network from the Customer Collection Points to the Interconnection Points; and
- (2) *Interconnection Service* – being a service for connection of new trunk main sewers owned and operated by Services Sydney to the exiting Sydney Sewage Reticulation Network at the Interconnection Points.

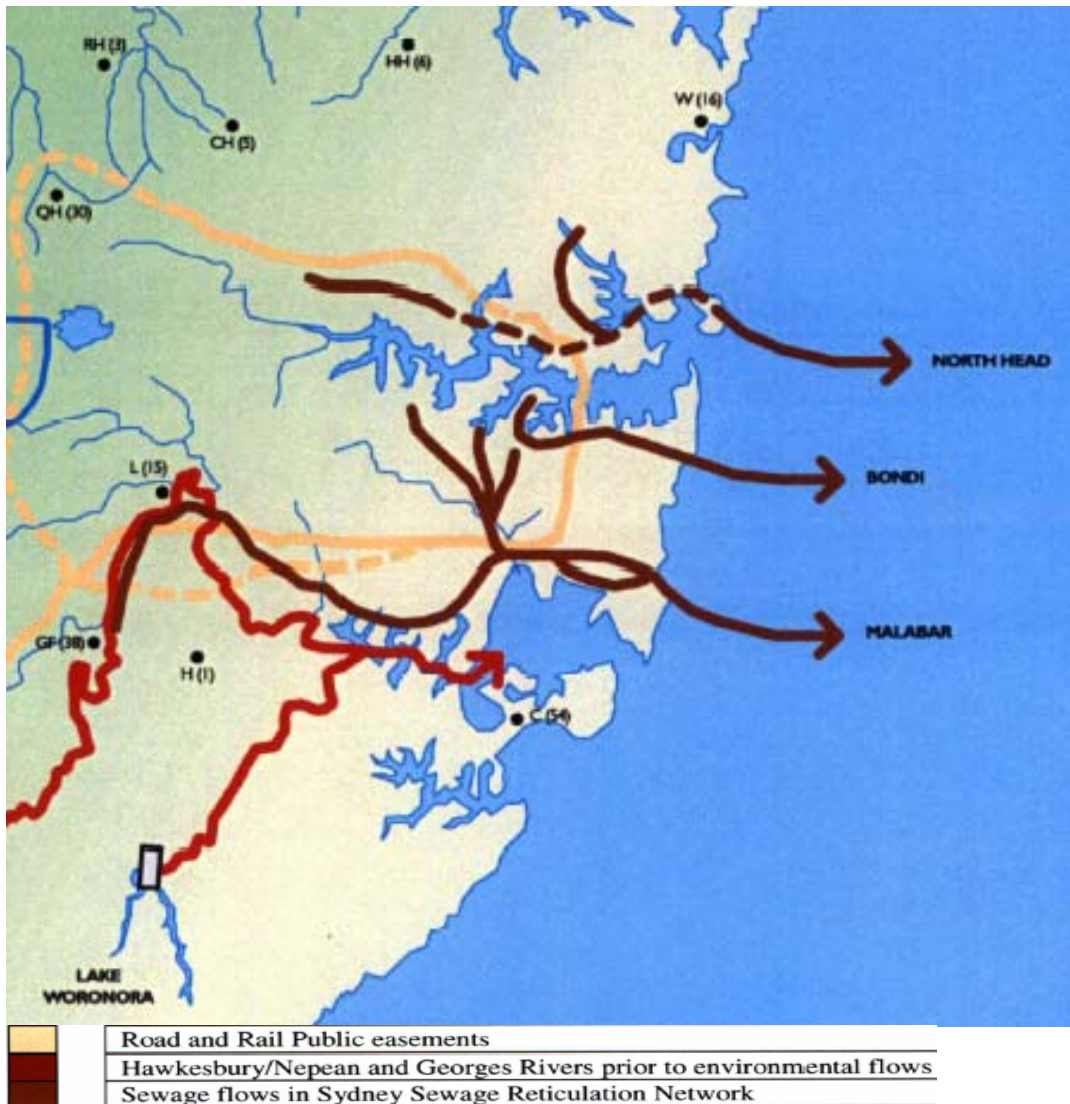
(Each a Service and collectively referred to as the “Services”).

- 4.5 Services Sydney defined the Customer Connection Point to mean the point (known as the boundary trap) at which the sewage pipe on a customer’s premises connects with the Sydney Sewage Reticulation Network. The Interconnection Point was defined as a point at or near the point at which the Sydney Sewage Reticulation Network connects to the North Head, Bondi and Malabar treatment plants respectively (Services Sydney 2004a, p. 18).
- 4.6 Services Sydney asserted that each of the Services are a “service” within the meaning of section 44B as each is a service provided by means of a facility and the exceptions set out in paragraphs (d) to (f) do not apply.
- 4.7 Sydney Water noted that the term “transmission service” is not used in the waste water industry and that the term “interconnection service” is used only in the context of sewer mining. Rather, the term “transportation” is used in the industry to describe the transportation of effluent via a reticulation network. For this reason, the Council will use the term “transportation” rather than “transmission” to refer to the carriage of sewage from a customer’s boundary trap (referred to as the Collection Point by Services Sydney) by a reticulation network.
- 4.8 Both the definition of the Interconnection Service and the Interconnection Point reflect Services Sydney’s Sustaining the City proposal. However, as any access seeker, not just Services Sydney, can avail themselves of access rights under Part IIIA of the TPA if Services Sydney’s application is successful, the Council does not consider it appropriate to limit the definition of the services the subject of applications for declaration to accommodate the particular business proposal of the applicant. For this reason, the Council considers it appropriate to refer to a sewage transportation service and an interconnection service as applying to any part of the relevant facility.

- 4.9 In its issues paper, the Council sought views as to the degree of integration of the two Services and whether each was or could be the subject of commercial transactions in its own right. Services Sydney affirmed its view that the Transmission Service and the Interconnection Service should be regarded as separate services. However, it noted that in practice, the two services are likely to be integral to the delivery of one another and that as such, it had no objection to the Council combining the two services for the purposes of the application.
- 4.10 Pertinent to identifying the relevant services for the purpose of Services Sydney's application for declaration, is the industry practice of "sewer mining". Sewer mining involves the extraction of raw effluent from a sewage reticulation network, normally, for the purpose of treatment and use of the recycled waste water. There are a number of examples of sewer mining projects in Australia including at Sydney Olympic Park (SOPA), Flemington Racecourse in Melbourne and Southwell Park in the Australian Capital Territory (ATSE 2004, Chapter 4). In order to sewer mine, third parties need to interconnect with a reticulation network and negotiate terms and conditions of interconnection and effluent extraction. Transportation services are not required to enable sewer mining.
- 4.11 For the purpose of defining the relevant service the subject of Services Sydney's application, the practice of sewer mining demonstrates that a sewage reticulation network interconnection service can and is acquired separately from a sewage transportation service. The converse, however, does not appear to be the case. It is difficult to conceive of a demand for a sewage reticulation network transportation service on its own absent an interconnection service. Even in the case of parties seeking to compete for the provision of retail services alone without the intention of extracting and treating sewage, the potential competitor would seek to acquire the transportation service as part of a bundled service including treatment and necessarily (either expressly or impliedly) an interconnection service. Nonetheless, the fact that the interconnection service can and is the subject of commercial transactions distinct from transportation services as in the case of sewer mining, leads to the conclusion that separate services exist for sewage reticulation network transportation on the one hand and interconnection on the other.

The facility

- 4.12 Both the declaration criteria in section 44G(2) of the TPA and the definition of service in section 44B refer to the facility that provides a service. The TPA does not define the term “facility” although the section 44B definition of services cites examples, including roads and railway lines. In the Sydney Airport decision, the Tribunal said that “*a facility for the purposes of the Act is a physical asset (or set of assets) essential for service provision*” (Sydney Airport decision, para 82). The relevant facility is therefore comprised of “*the minimum bundle of assets required to provide the relevant service subject to declaration*” (Sydney Airport decision, para 192).
- 4.13 In its application, Services Sydney defines the relevant facility as the Sydney Sewage Reticulation Network (Services Sydney 2004a, p. 22) which comprises the sewers that service the three major coastal sewage treatment plants, namely, the North Head, Bondi and Malabar sewage treatment plants. Each treatment plant serves a geographically distinct area of Sydney. Set out below is a map showing the three sewage reticulation networks that service the coastal treatment plants.



source: Services Sydney 2004, attachment 5

4.14 The greater Sydney area is served by 27 operationally distinct reticulation systems and 31 sewage treatment plants (Sydney Water 2004a, para 39). Services Sydney’s application for declaration does not cover that part of the Sydney Water sewerage system servicing the Blue Mountains, Illawarra, Lower Hawkesbury, Middle Hawkesbury-Nepean, Upper Hawkesbury, Cronulla and Warriewood areas.

4.15 In response to the Council’s issues paper, Services Sydney proposed an alternate definition of the Sydney Sewage Reticulation Network which particularised with greater detail the reticulation network required to provide the Services. This alternate definition was proposed to address any concerns the Council has in respect of defining the relevant facility as less than the entire Sydney Water

sewerage system (Services Sydney 2004b, p3). The Council does not have such concerns. The minimum bundle of assets required to provide a service need not include all assets owned by the service provider or all assets commonly referred to as being part of a particular system. Accordingly, further consideration of the proposed alternate definition is not necessary.

- 4.16 Defining the relevant facility is important particularly for the application of the natural monopoly criterion (criterion (b)) and the national significance criterion (criterion (c)).
- 4.17 Services Sydney has defined the services the subject of the applications for declaration as including the use of the Sydney Sewage Reticulation Network. It argues that the relevant facility is the Sydney Sewage Reticulation Network as that is the minimum bundle of assets required to provide the Services. Services Sydney relies on the Sydney Airport decision in support (see paragraph 4.12).
- 4.18 In the Sydney Airport's decision, the Tribunal accepted that the declared service included the use of the freight aprons and hard stands at Sydney International Airport. The Tribunal did not, however, limit the definition of the relevant facility to the freight aprons and hard stands. Rather, the whole of Sydney Airport was accepted as the relevant facility. The high degree of interconnectivity of the bundle of assets making up the whole airport was an important factor in the Tribunal's conclusion. The issue before the Tribunal was what additional assets to the freight aprons and hard stands should be included in the bundle of assets making up the relevant facility so as to make access meaningful.
- 4.19 In the case of the present application, the issue is whether the Sydney Sewage Reticulation Network as a whole constitutes the relevant facility as asserted by Services Sydney, or whether each of the reticulation networks serving the North Head, Bondi and Malabar treatment plants respectively, constitute separate facilities. The degree of integration between the three networks is relevant to this enquiry. This is consistent with the approach in the Sydney Airport decision.
- 4.20 The Council asked for information as to the degree of physical, operational and economic integration in its issues paper. In response, Services Sydney submitted that:

The sewers serving the North Head, Bondi and Malabar sewage treatment plants are integrated components of the Sydney Sewage Reticulation Network. The Sydney Sewage Reticulation Network is

managed by Sydney Water to address flows across natural catchment lines. In response to increases in sewage flows in particular areas, Sydney Water intercepts, diverts and links sections of the Sydney Sewage Reticulation Network in accordance with capacity constraints. (Services Sydney 2004b, p.10)

4.21 In contrast, Sydney Water submitted that the North Head, Bondi and Malabar reticulation networks are each a distinct facility because (Sydney Water 2004a, para 42):

(i) the three systems are not physically connected;

(ii) the three systems have different size, population density and wastewater quality condition;

(iii) the three systems are each operated independently;

(iv) the system hydraulic characteristics are unique to each of the three systems;

(v) the New South Wales Department of Environment and Conservation treats these systems as three separate systems with three separate licences;

(vi) each system drains geographically and topographically distinct areas;

(vii) the ratio of dry to wet weather flows is a distinct characteristic of each network (for example, the Bondi Reticulation Network has a high wet weather/dry weather flow ratio experience compared to the North Head Reticulation Network).

4.22 Services Sydney does not accept Sydney Water's characterisation of the Sydney Sewage Reticulation Network. It noted that the Department of Environment and Conservation licences for each system are virtually identical with regards to ocean discharge requirements. The operational requirements are also similar as each system relies on gravity with pumping stations used as necessary. (Services Sydney 200c, p.13).

4.23 Services Sydney further stated that the history of the development of the sewers demonstrates that they "*have become increasingly physically interconnected*". This claim was refuted by Sydney Water (Sydney Water 2004b, p.1). Services Sydney further noted that the systems are "*all fully integrated and coordinated in terms of staffing, operation and maintenance, billing, common products, treatment levels and wastewater strategies for the major ocean plants*" (Services Sydney 2004b, p7). In response, Sydney Water stated that

notwithstanding common billing, each system is operated individually with separate system operators responsible for the technical management of each system (Sydney Water 2004b, p.2).

- 4.24 On the basis of the information from Sydney Water, the physical and technical operational integration of the three systems appears limited. However, there is a degree of economic integration in the sense that the financial and commercial operability of the system is assessed and managed as a whole. For example, Sydney Water's charging regime is applied uniformly throughout its network and regulated by IPART on this basis. Such factors may support a view of the relevant facility as including not only the North Head, Bondi and Malabar reticulation systems, but the entire Sydney Water sewage reticulation network comprising the 27 operationally distinct systems.
- 4.25 Notwithstanding such economic linkages, the Council considers it appropriate to treat the Sydney Sewage Reticulation Network as constituting three separate facilities, constituting each of the North Head, Bondi and Malabar Reticulation Networks. The degree of physical and operational interconnection between the three systems appears marginal. Access to services provided by any one of the three networks in isolation from the other two networks would be meaningful, particularly in the case of smaller scale sewer mining type ventures. Similarly, there would be nothing preventing Services Sydney from seeking access to services provided by all three networks in order to progress its Sustaining the City proposal.

Provider of the facility

- 4.26 Sydney Water is the provider of each of the relevant facilities, that is, the North Head Reticulation Network, the Bondi Reticulation Network and the Malabar Reticulation Network.
- 4.27 Sydney Water is a statutory State owned corporation. Accordingly, the decision maker for the purposes of Services Sydney's applications for declaration is the Premier of New South Wales (s. 44D(2), TPA).

Conclusion

- 4.28 The Council considers that Services Sydney's application seeks declaration of the following services:

- (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 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.

5 s. 44G(2)(b) - that it would be uneconomical for anyone to develop another facility to provide the service

Background

- 5.1 Criterion (b) tests whether a facility exhibits natural monopoly characteristics. Criterion (b) is concerned with the nature of the facility rather than with the effect on competition of provision of the service provided by means of the facility.
- 5.2 The facility is uneconomical to develop if for the likely range of reasonably foreseeable demand for the service, it would be more efficient, in terms of costs and benefits to society as a whole for one facility to provide the service rather than more than one. That is, the facility exhibits economies of scale over the entire range of reasonably foreseeable demand for the service.

Assessment

- 5.3 The Council concluded that each of the North Head, Bondi and Malabar Reticulation Networks constitute separate facilities for the purposes of Services Sydney's application for declaration. Accordingly, for each application to be successful, the respective facility must be uneconomical to develop in satisfaction of criterion (b). To do so, the Council must be satisfied that the reasonably foreseeable demand for the facility can be satisfied at lower cost by that facility than by more than one facility.
- 5.4 In its application, Services Sydney contended that the relevant facility was the Sydney Sewage Reticulation Network and that this network would be uneconomical to develop in satisfaction of criterion (b) (Services Sydney 2004a, p.22-25). In support of this view, Services Sydney noted the significant size of the network, the fact that it is underground, the unlikelihood of obtaining planning approval to construct another similar facility and the significant capital cost to replace the system estimated to be approximately \$15 billion.

- 5.5 Services Sydney argued that the Sydney Sewage Reticulation Network currently meets the full demand for sewage collection services. It argues that to supply any one premise economically, it is essential to have a connected network which aggregates the services provided into larger units for trunk main transmission. Further, there are considerable economies of scale associated with the network given the high sunk costs and it being more cost effective to provide services using one rather than two pipelines.
- 5.6 In its response to the issues paper, Services Sydney stated that even if the Council concluded that each of the North Head, Bondi and Malabar Reticulation Networks constituted a relevant facility, each facility is uneconomical to develop for the same reasons that the Sydney Sewage Reticulation Network as a whole is uneconomical to develop. Accordingly, criterion (b) would be satisfied for each of the three facilities. No demand or cost function details were provided by the applicant.
- 5.7 Sydney Water accepted that criterion (b) is likely to be satisfied in respect of each of the three reticulation systems. To assist the Council, Sydney Water provided it with an outline of anticipated demand and throughput capacities for each of the facilities.
- 5.8 It would be extremely costly to build new facilities to provide the relevant services. Sydney Water estimates that the depreciated optimised replacement cost for each of the North Head, Bondi and Malabar Reticulation Networks is \$2,243.6 million, \$260.5 million and \$2,878.8 million respectively. The undepreciated cost of developing new facilities to provide the services provided by these facilities is estimated to be in the order of \$7 billion (Sydney Water 2004a, paras 63-64).
- 5.9 Sydney Water further estimates that on the basis of expected population growth and water usage patterns, demand for the services provided by the facilities would increase by 0-10% over existing throughput levels over the next fifteen years. On this basis, the likely range of foreseeable demand for the sewage transportation services over this period for the North Head, Bondi and Malabar Reticulation Networks respectively is 313-344 ML/day, 480-528 ML/day and 480-528 ML/day. The combined total is 923-1015 ML/day (Sydney Water 2004a, para 56).
- 5.10 These estimates are based on average dry-weather flows. In wet weather, sewerage systems suffer a degree of rainwater ingress whereby rainwater enters the system primarily through cracks,

faults and illegal connections. Sydney Water estimates that wet weather flows represent about 10% of the yearly average flow. Each of the North Head, Bondi and Malabar Reticulation Networks has capacity to convey wet weather flows of 1400 ML/day, 700 ML/day and 1350 ML/day respectively. The systems are not designed to accommodate extreme wet weather flows which would result in overflows occurring. Sydney Water estimates that the number of overflow events is currently 150-250 per ten year period. Given the relative infrequency of the overflow events and the costs involved, it is not economically viable to build a system to accommodate such extreme wet weather events.

- 5.11 Sydney Water concludes that the capacity of each of the three facilities is sufficient to meet reasonably foreseeable demand for the services provided by each facility for the next fifteen years (Sydney Water 2004a, para 65).
- 5.12 Assessment of reasonably foreseeable demand over a fifteen year time frame would appear appropriate given the nature of the industry with extremely high sunk costs. The Council notes Sydney Water's demand projections and estimates of capacity for each of the facilities. On the basis of the information provided, the Council concludes that it would be uneconomical for another party to develop other facilities to provide the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks respectively.

Conclusion

- 5.13 The Council considers that criterion (b) is satisfied in respect of each of the applications for declaration as it would be uneconomical for anyone to develop another facility to provide the transportation and interconnection services provided by the North Head Reticulation Network, or the Bondi Reticulation Network, or the Malabar Reticulation Network.

6 s. 44G(2)(a) - that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia), other than the market for the service

Background

6.1 The purpose of criterion (a) is to limit access regulation to circumstances where access is likely to enhance the environment for competition in a dependent market(s). Whether competition will be enhanced depends critically on the extent to which the incumbent service provider can, in the absence of access regulation, use market power to adversely affect competition in a dependent market. If the service provider has the ability and incentive to use power to adversely affect competition in a dependent market, regulated access may improve the environment for competition, offering the prospect of tangible benefits to consumers, including reduced prices and better service provision.

6.2 In assessing whether criterion (a) is satisfied, the Council must:

- (a) define the relevant market(s) in which competition may be promoted and verify that the market(s) are separate from the market for the service to which access is sought; and
- (b) determine if access (or increased access) would promote a more competitive environment in the dependent market(s). This requires an assessment of:
 - (i) whether the incumbent has the ability and incentive to exercise market power to adversely affect competition in the dependent market(s); and
 - (ii) whether the structure of the dependent market(s) is such that declaration would, by constraining the exercise of market power by the service provider, promote competition.

- 6.3 The issue under criterion (a) is whether access would improve the opportunities and environment for competition such that competitive outcomes are more likely to occur. As stated by the Tribunal in the Sydney Airport decision:

The Tribunal does not consider that the notion of “promoting” competition in s 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of “promoting” competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration. (Sydney Airport decision, paragraph 106)

- 6.4 The Council concluded that Services Sydney’s application for declaration constitutes six separate applications being for the declaration of the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks (see paragraph 4.28). The issues that arise in the application of criterion (a) to each of the six applications are identical. For this reason, the Council has not differentiated the six separate applications in its discussion under criterion (a).

Assessment

Relevant dependent market(s)

- 6.5 The first step in the application of criterion (a) is to define the market(s) in which competition may be promoted as a result of declaration. Such market(s) (referred to as the dependent market(s)) must be separate from the market for the services the subject of the declaration application. Typically the dependent market(s) will be either upstream or downstream from the market for the services the subject of the application which (if criterion (b) is satisfied) represents the bottleneck that declaration seeks to unlock.

- 6.6 ‘Market’ is defined in section 4E of the TPA as:

For the purposes of this Act, unless the contrary intention appears, “market” means a market in Australia and, when used in relation to any goods or services, includes a market for those goods or services and other goods or services that are

substitutable for, or otherwise competitive with, the first-mentioned goods or services.

6.7 The High Court has accepted the following definition of “market”:

A market is the area of close competition between firms or, putting it a little differently, the field of rivalry between them (if there is no close competition there is of course a monopolistic market). Within the bounds of a market there is substitution - substitution between one product and another, and between one source of supply and another, in response to changing prices. So a market is the field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the long run, if given a sufficient price incentive. ... Whether such substitution is feasible or likely depends [on a number of factors] ... in determining the outer boundaries of the market we ask a quite simple but fundamental question: If the firm were to 'give less and charge more' would there be, to put the matter colloquially, much of a reaction? (Re Queensland Co-operative Milling Association Ltd (1976) 25 FLR 169 at 190).

6.8 Markets are normally defined by reference to four dimensions; namely, the product, functional, geographic and temporal dimensions. This requires the identification of:

- *product dimension* - the goods and/or services supplied and the sources or potential sources of substitute products;
- *functional dimension* – the different vertical stages of production and/or distribution that comprise the field of competition;
- *geographic dimension* – the areas that are supplied, or could be supplied, with the relevant product and to which consumers can practically turn; and
- *temporal dimension* – the period over which substitution possibilities need to be considered.

6.9 Services Sydney submits that the Services are necessary inputs into the retail market for sewage collection services (Sewage Collection Market). In its submission to the Council’s issues paper, Services Sydney also identified the markets for treated waste water services and bio-solids treatment and disposal services as relevant dependent markets in addition to the Sewage Collection Market (Services Sydney 2004b, p8). In a supplementary submission to the Council, Services Sydney further identified potential dependent markets for the provision of sewage treatment and disposal services, retail

management services and facilities management services (Services Sydney 2004c, p.12).

The Sewage Collection Market

6.10 In considering the product dimension of the market, Services Sydney states that a provider of services in the Sewage Collection Market in effect undertakes (or makes arrangements for) the following (Services Sydney 2004a, pp.4-5):

- (a) the collection of sewage from customer premises;
- (b) the transmission of the sewage from the customers premises;
- (c) the treatment of the sewage to whatever environmental standard is required; and
- (d) the disposal of the treated sewage and solids.

6.11 The application suggests that the retail market in which the bundled service of sewage collection, transmission, treatment and disposal is bought and sold is functionally distinct from the market for the Services. Services Sydney noted that Sydney Water is a vertically integrated provider of these distinct services. The geographic dimension of the market is said to be the area currently served by the Sydney Sewage Reticulation Network.

6.12 Criterion (a) requires that access promote competition in a market (referred to as a “dependent market”) other than the market for the service the subject of the application for declaration (the “primary market”). Sydney Water submits that there is no market for the Services distinct and separate from the retail market for sewage collection services. Rather, the Sewage Collection Market is part of the primary market in which the Services are provided. Accordingly, criterion (a) cannot be satisfied in respect of the Sewage Collection Market.

6.13 For two markets to be functionally separate, the Council considers that two conditions must be satisfied. The first is that the levels of production must be economically separable; that is, the transaction costs in the separate provision of the product at each level of production must not be so large as to prevent such separate provision from being feasible. This approach is consistent with that taken by the Tribunal in the Sydney Airport decision. The second condition is

that each level must use assets sufficiently specific and distinct to that level such that the assets cannot readily produce the output of the other level (NCC 2002, paras 5.21-5.28).

- 6.14 Sydney Water accepts that the second limb of the test, that is, the specialised asset test, is satisfied in the case of Services Sydney's application. However, it argues that the first limb of the test is not satisfied as the functional level at which the Services is supplied is not economically separable to the level at which the retail sewage collection services are supplied. In essence, it argues that the transaction costs involved in having different parties provide the Services on the one hand and the retail services on the other would be so great that it would not be economically viable for this to occur. As such, the most efficient means by which the bundled services provided in the Sewage Collection Market (which includes the transportation and interconnection services as inputs) can be provided is through a single vertically integrated entity.
- 6.15 This argument is difficult to sustain in respect of the interconnection service. Sewer mining demonstrates that interconnection services are acquired independently from the retail sewage services bundle. The interconnection service is the subject of commercial transactions in its own right. This indicates that the service is provided in a functionally distinct market to the one in which retail sewage services are provided.
- 6.16 The issue of functional separability is, however, more complex in respect of the transportation service. Sydney Water argues that a key characteristic of the retail sewage collection and treatment market that makes it more efficient for a single vertically integrated provider to provide the entire bundle of services, is that the product, in this case the effluent, is not homogenous. For example, heavy industrial customers may produce more heavy pollution loads of effluent that is more expensive to treat than that produced by residential customers. By servicing all customers within a specific geographic area, a single provider of sewage services collects and treats average load effluent.
- 6.17 Sydney Water argues that if there were multiple service providers within a geographic area, the risk is that a competitor may "cherry pick" customers that produce more heavy pollution load, charging those customers an amount reflective of the treatment of such load. The difficulty is that the competitor would only be treating effluent of an average pollution load as all effluent mixes together within the common reticulation network. As such, the competitor would recover

from the customer a higher price reflecting the higher cost in treating the heavier pollution load effluent but would not incur the higher treatment cost as it would only be required to treat average pollution load effluent. The converse would be the case for the incumbent service provider which would be left with a lower revenue customer base reflecting customers' lower pollution load profiles but it would still be faced with the costs of treating average pollution load effluent. Sydney Water submits that such a result would be inefficient.

- 6.18 Sydney Water's current pricing structure distinguishes between domestic households and non-domestic customers. Sydney Water currently charges residential customers a flat fee for sewage services of \$338.54 per annum (subject to CPI indexing from 1 July 2004). Non-residential customers are charged on a variable basis depending upon the metered volume of effluent discharged and a toxicity grading which is applied to the particular customer. The toxicity grading is determined through negotiation with Sydney Water.
- 6.19 Sydney Water stated that the differential pricing reflects the cost of treatment and disposal with higher pollution load waste incurring greater costs (Sydney Water 2004a, para 78). Sydney Water currently treats effluent at the North Head, Bondi and Malabar treatment plants to a primary level. This involves the removal of solids above a certain size with the remaining effluent discharged into the ocean. It is not immediately apparent that the cost of transporting and treating to a primary level, effluent of a higher toxicity grade is more costly than effluent of a lower toxicity grade.
- 6.20 If the cost to Sydney Water of treating the different classes of residential and trade waste customer effluent does not differ to a significant degree, the difficulties raised by Sydney Water in addressing the lack of effluent homogeneity, do not arise. As argued by Services Sydney, "*... the heterogeneity of sewage is only relevant if it imposes different costs on other users of the Sydney Sewage Reticulation Network (users) such that it is necessary to identify the source of that difference*" (Services Sydney 2004c, p.3). If this were the case, Sydney Water's response to the prospect of cherry picking by a competitor could be to restructure its pricing policy. In economic terms, this would involve a rent transfer rather than any efficiency loss or gains particularly given the inelastic nature of demand for the services.
- 6.21 IPART is required to take into account a range of factors in its price determinations including the cost of providing services, efficiencies

and the need to promote competition (s.15, IPART Act). The principles that it applies for trade waste charges includes the requirement that trade waste charges at least cover handling costs and that prices should vary to reflect differences in the cost of treatment (IPART 2003, Appendix 11). A report by GHD Pty Limited, a management engineering company, prepared on behalf of IPART ahead of its 2003 price determination concluded that Sydney Water's proposed pricing structure:

is based on the principal of cost recovery and is driven by sophisticated models that consider factors such as the cost of transportation, treatment and disposal of trade waste and the threat these substances present to the infrastructure and personnel. (GHD 2003, p.5)

- 6.22 Although all effluent entering the network must fall within a permitted toxicity range, there may be costs involved in ensuring that higher toxicity effluent is sufficiently diluted to ensure system integrity. This may occur prior to entry into the reticulation system or in the system itself. The Council, however, has not been provided with specific details as to the nature and extent of cost differentials in transporting and treating effluent of varying toxicity levels.
- 6.23 The Council notes that the heterogeneity of effluent issue has been raised as problematic elsewhere. In particular, a common carriage service provision model for sewage services was considered in England and Wales. The model was not pursued apparently due to a lack of interest (see paragraph 6.90) but it was noted in a public consultation document that mixing waste products within the common carriage network would raise issues (DEFRA Consultation Paper, April 2000).
- 6.24 Even if the heterogeneous nature of effluent raised efficiency concerns within a competitive model on the basis that primary level treatment costs vary between different users, the existence of such concern does not determine the question of market economic separability. For the purpose of determining whether the transportation and interconnection services are provided in a functionally distinct market to retail services, the issue is whether it is possible to develop at a reasonable cost, a commercial interface that addresses the issue of heterogeneous sewage collection and treatment.
- 6.25 Sydney Water noted that Services Sydney did not propose in its application any mechanism to address the issue of collecting and

treating sewage of different pollution load characteristics. The issue, however, is not whether Services Sydney's proposed business model appropriately deals with the issue of heterogeneous sewage collection and treatment. Rather, it is whether practical and reasonable commercial arrangements can be entered into between service providers to deal with the issue. If they cannot and the transaction costs are exceedingly high, the transportation and interconnection services are unlikely to be economically separable from the retail service.

6.26 Sydney Water stated in its submission that it:

cannot envisage any practicable operational or commercial arrangements that would allow Services Sydney – or any other competing provider of a retail sewage collection services – to establish market relationships with final customers that would bear any reference to the physical product that is able to be delivered from the customer's boundary trap via Sydney Water's transport network to Services Sydney's treatment plant. (Sydney Water 2004a, para 87)

6.27 In contrast, Services Sydney argued that even if it could be demonstrated that the costs for other network users would increase as a result of an above average pollution load of Services Sydney's customer base, the issue could be addressed through market mechanisms and regulatory design. For example, any deviation in customer base pollution load profile from the average could be addressed through transportation prices or by requiring the extraction of greater (or lesser) volumes of effluent from that contracted (Services Sydney 2004c, p.4; Marsden, para 27). Regulatory requirements for on-site treatment or management of the customer base to ensure its waste falls within the specified range could be imposed. In an economic report prepared on behalf of Services Sydney, Marsden Jacob makes the further point that Sydney Water's differential pricing structure, which is intended to be cost reflective, demonstrates that pricing mechanisms can be used to address the heterogeneity issue (Marsden, para 56). Services Sydney argues that *"...the most appropriate market mechanism will be determined through commercial negotiations between Services Sydney or other access seekers and Sydney Water"* (Services Sydney 2004c, p.5).

6.28 If Services Sydney's application is successful, the ACCC would have the power to arbitrate disputes as to the terms and conditions of access to the declared services, namely the interconnection and transportation services (s.44V(1), TPA). The heterogeneity of effluent

issue arises because of the nature of the waste put into and extracted from the network as opposed to use of the network itself. As such, it is not clear whether the ACCC would have the power to arbitrate terms and conditions of access to address the heterogeneity issue.

- 6.29 Services Sydney argues that the ACCC would have the requisite power on the basis that the language of the enabling provisions under the TPA is broad. In particular, section 44V(2) expressly provides that the ACCC “... *may deal with any matter relating to access by the third party*” before going on to provide examples of such matters. Section 44X(1) requires the ACCC to (among other things) take into the legitimate business interests of the provider and the interests of all persons who have rights to use the service (ss1(a) and (c)). Sub-section (2) allows the ACCC to “... *take into account any other matters that it thinks are relevant.*” The language conferring the power to arbitrate does appear expansive and may adequately confer power on the ACCC to arbitrate terms and conditions of access to the interconnection and transportation services to address any heterogeneity of effluent concerns.
- 6.30 Sydney Water sought to draw a distinction between the sewage services industry and other network utilities such as gas and electricity on the basis that gas and electricity respectively are homogeneous products (Sydney Water 2004a, para 85). This, however, is not the case. As discussed in the Marsden Jacob report, electricity generated does have, for example, differing characteristics in terms of frequency and voltage for example (Marsden 2004, paras 31 and 33). The National Electricity Code, which regulates the behaviour of market participants in the National Electricity Market, sets technical parameters within which electricity is supplied and taken from the national grid. Similarly in the case of gas. Gas is extracted from differing gas fields and can have, for example, different calorific values and sulphur content. The pipeline operators specify the acceptable range that must be satisfied by producers inputting gas into the pipeline. A gas producer can, however, input gas outside of this range by contracting for the input of other gas with a counterbalancing calorific value such that the total input falls within the range specified by the pipeline operator. Such arrangements are facilitated by way of commercial arrangements between producers and pipeline operators and market rules contained in the National Gas Code.
- 6.31 In addition to the transaction costs involved in addressing the heterogeneity of effluent point discussed above, Sydney Water set out

in detail its view as to other likely costs that would arise from the separation of the provision of the interconnection and transportation services on the one hand from the retail sewage service on the other. Sydney Water categorised these costs as follows (Sydney Water 2004a, paras 91-125):

- (i) *Costs of measuring and monitoring inflows* – Inflow monitoring mechanisms would need to be further developed.
- (ii) *Capital and operating costs of engineering works required at the points of interconnection* – Sydney Water estimates capital costs of interconnection to range from \$5 million to \$50 million with ongoing maintenance costs of \$50,000 per annum for each point of interconnection.
- (iii) *Capital and operating costs of the Services Sydney proposed Sewer Main Interconnector* – Sydney Water estimates the total construction cost at up to \$150 million and operating and maintenance costs at up to \$3 million for a network servicing 2.5 million people.
- (iv) *Commercial/retail transition costs and ongoing costs* – Sydney Water estimates transaction costs to establish and maintain retail transition costs including those associated with customer transfers to be in the range of \$1 million.
- (v) *Regulatory and legal costs transition and ongoing additional costs* – This includes costs of redesigning and implementing new regulatory arrangements for access, consumer protection and quality monitoring.
- (vi) *The impact on the existing sewage treatment plants of reduced sewage flows* – A significant flow reduction in Sydney Water’s ocean outfall pipelines due to effluent off-take by competitors would result in increased costs to prevent sea water ingress.

6.32 In considering whether the transportation service is economically separable from the provision of the retail service, the issue is whether the economies of joint production or supply are such that it would be cheaper for a single entity to supply a bundled service than multiple entities to provide discrete services within the bundle. The transaction costs (and savings) to be taken into account are limited to those that arise because services within the retail bundle are provided by separate providers. This includes the costs of contract

formation between the different service providers and any costs of measuring and monitoring necessary to enable separate provider service provision. This bundle of costs is distinct from the costs incurred as a result of the process of competition, such as marketing and customer switching management. All other costs and savings that arise as a result of declaration are taken into account under criterion (f).

- 6.33 In regard to the list of transactions costs submitted by Sydney Water, the only cost items that are appropriately considered as transactions costs for the purpose of the economic separability test are items (i) and (v), and only to the extent that additional expense is incurred by Sydney Water as a result of separate provider service provision. Sydney Water currently has measuring and monitoring systems. The degree to which such systems would need to be enhanced to enable separate service providers is not apparent. In respect of cost item (v), the only portion of the regulatory and legal costs relevant are those borne by Sydney Water to enable separate service provision. Additional costs such as the regulatory costs of establishing and complying with access arrangements necessary to facilitate competition, are not transactions costs pertinent to the issue of economic separability.
- 6.34 The remaining cost items are not relevant transactions costs. The capital costs referred to in items (ii) and (iii) are borne by the access seeker, and in any event, cost item (ii) relates to the interconnection service which is economically separable from the retail service (see paragraph 6.15). The customer transfer costs noted in cost item (iv) relate to the process of competition rather than being transactions costs arising from economic separability. Costs associated with Sydney Water being required to enter into separate customer contracts as opposed to relying on the regulated customer contract mandated through its operating licence may be relevant as a transactions cost. It is not apparent whether and if so the extent to which this would be the case.
- 6.35 Services Sydney referred the Council to examples of other sewage collection markets in which the transportation function has been separated from sewage treatment and disposal function (Services Sydney 2004c). Melbourne Water treats the majority of sewage and owns and operates the bulk main trunk sewers within the Melbourne urban area. The retail service and the operation of the reticulation networks from the customer to the main trunk line, is provided by three independent retail businesses, namely, City West Water, South

East Water and Yarra Valley Water. The three retailers also operate some small sewage treatment plants from which they provide recycled water. Each retail business services a specific geographic area and does not compete directly with other retailers (ESC 2004). A similar arrangement exists in Auckland, New Zealand. Sewage is collected and transported by local network operators (LNO) within the Auckland area. Each LNO operates within a geographically distinct area. Each local network feeds into a main trunk line owned and operated by a separate entity, Watercare Services Limited which provides treatment services. In both of these examples, the trunk transportation and treatment services are provided by distinct entities to that providing the collection and transportation (at least to the main trunk line) services. This differs to what is being proposed by Services Sydney – namely, the separation of retail and transportation functions.

6.36 The idea of unbundling the retail package of sewage services, however, is not new. For example, in the National Competition Policy Review of Victorian Water Legislation, a number of parties including the Office of the Regulator General (now the Essential Services Commission of Victoria) noted the prospect of retail competition for the provision of sewage services. Two of the high level conclusions reached by the Office was that (ORG 2000, p.17):

- (a) As a matter of principle, sewage service retailing could be distinguished from the transport components; and
- (b) Third party access arrangements and the financial unbundling of the transport and treatment service (as well as retailing) are fundamental to the development of competition.

6.37 In addition, there is some prospect of separate retail provision for sewage services in England and Wales under the existing common carriage framework for the competitive provision of water services (see paragraph 6.91).

6.38 Retail and transportation services are provided in different markets and by distinct entities in other network industries such as gas and electricity. In both industries, the network transportation service is provided by natural monopoly infrastructure and generally subject to regulation. Retail services and production/generation are provided in distinct contestable markets by separate entities. Consideration of the structural separation of contestable and non-contestable markets traditionally serviced by vertically integrated monopoly service

providers was a cornerstone commitment of governments under COAG's Competition Principles Agreement (clause 4). The commitment stemmed from the view that significant efficiencies could be achieved through such a restructure. The COAG Energy Market Review noted the significant benefits and efficiencies gained as a result of energy market reform including structural reform (2002, p.38).

- 6.39 While each industry must be considered taking into account its specific characteristics, it is difficult to see that the transaction costs in the sewerage industry would be substantially greater (relative to the efficiency benefits) than other network industries such as gas and electricity. Indeed, many of the technical complexities that arise in the electricity sector due to the nature of the product (for example, the inability to store electricity and its complex transmission patterns) do not arise in the sewerage industry suggesting that transaction costs may not be as great.
- 6.40 While there are transaction costs in unbundling the retail sewage service supply chain, the Council does not accept that the economies of joint supply are such that it would be more efficient for the bundled retail service to be supplied by a single firm rather than separate firms. Terms and conditions could be negotiated to address the heterogeneity issue to the extent that it raises efficiency concerns. This may be facilitated through a degree of regulatory design as has been the case in the electricity and gas industries. In any event, the costs involved would not be so prohibitive to render the functional separation of retail from transportation services inefficient. Accordingly, a dependent market for the provision of retail sewage services of the type described by Services Sydney as the Sewage Collection Market exists and is distinct from the primary market for transportation and interconnection services the subject of the applications for declaration.

Other dependent markets

- 6.41 In addition to the Sewage Collection Market, Services Sydney identified as relevant dependent markets the markets for treated waste water services, bio-solids treatment and disposal services, sewage treatment and disposal services, retail management services and facilities management services (Services Sydney 2004b para 4.2; 2004c, p.12). Services Sydney did not, however, seek to apply the declaration criteria with respect to these other dependent markets or provide relevant information. In the absence of such material from

the applicant, there is a real issue as to whether the Council should undertake further enquiry in respect of the other dependent markets. It does not consider itself obliged to do so.

- 6.42 The Council, however, did receive submissions and other material that contained information in respect of the provision of recycled water. On the basis of this information, the Council considers itself able to form a view as to whether criterion (a) is satisfied in respect of the potential market for the provision of recycled water.
- 6.43 According to its application, Stage 2 of Services Sydney business plan is the return of tertiary treated water to the base of Sydney's catchment dams, to replace water otherwise needed for environmental flows. This is referred to as the "Waters to Rivers Project". The sale of recycled waste water is a clear commercial driver for Services Sydney's business model.
- 6.44 There are numerous examples of less ambitious smaller scale recycled waste water projects throughout Australia. Such projects are undertaken either by the incumbent water and waste water service provider such as Sydney Water, or by third parties through sewer mining type arrangements. Examples of third party sewer mining projects include the Sydney Olympic Park Authority (SOPA) project in Sydney, Flemington racecourse in Melbourne which recycles water for its own use, and Melbourne City Council's portable sewer mining treatment plant for recycled water supply to parks and gardens (ATSE 2004, Chpt 4).
- 6.45 Recycled water is currently used for a variety of purposes including watering parks and gardens, and agricultural and industrial use. For such uses, potable water can be provided as an alternative to recycled water. There are, however, uses of potable water including for human consumption, for which recycled water is not at present accepted as an alternative to potable water. As such, the relevant dependent market in which recycled water is provided can be characterised as the market for the provision of water (both recycled and potable) for the range of uses for which recycled water is considered appropriate (Recycled Water Market).

Would access (increased access) promote competition?

- 6.46 The assessment of criterion (a) requires the Council to consider whether declaration will enhance the opportunities and environment

for competition in a dependent market (see paragraph 6.3). This consideration involves a comparison of the future conditions and environment for competition *with* and *without* declaration.

6.47 In its application, Services Sydney asserted that in applying the future with and without declaration test, the current position provides a benchmark for the future without declaration against which to assess whether declaration would promote competition. The Council agrees with this approach.

6.48 Sydney Water argued that for the purposes of the ‘with and without’ declaration test in criterion (a), “*competition is promoted either by reduced price offerings or by quality enhancements*” (Sydney Water 2004a, para 132). While efficiencies resulting from increased competition may lead to reduced prices and improved quality, the Council does not look for evidence of actual outcomes in considering whether access would promote competition. Rather, it considers whether access would improve the opportunities and environment for competition - that is, rivalrous market behaviour – such that competitive outcomes are more likely to occur. This requires an assessment of:

- (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.

6.49 To the extent that existing sewer mining arrangements can be said to provide a right of access, criterion (a) requires consideration of whether increased access through declaration would promote competition.

Market Power

6.50 The Council concluded in its consideration of criterion (b) that the North Head, Bondi and Malabar Reticulation Networks were each a natural monopoly. Accordingly, Sydney Water has natural monopoly power in respect of the provision of the transportation and interconnection services provided by each of the facilities.

- 6.51 The issue for the purposes of criterion (a) is whether Sydney Water has the ability and incentive to exercise its market power to adversely affect competition in the Sewage Collection Market or in the other identified dependent markets. In other words, the Council needs to consider what (if any) are the constraints on Sydney Water from exercising market power to harm competition in the dependent markets. In the absence of any constraints, the Council must conclude that Sydney Water has the requisite market power to satisfy criterion (a).
- 6.52 Evidence of an exercise of market power through, for example, the denial of access, would satisfy the market power requirement under criterion (a). In its application, Services Sydney noted that in 1999 it engaged in negotiations with Sydney Water for the development of a number of infrastructure projects within Services Sydney's "Sustaining the City" proposal. A Heads of Agreement was entered into which was subsequently terminated by Sydney Water. Services Sydney also promoted its infrastructure project to the New South Wales Government (Services Sydney 2004a, p.13).
- 6.53 Services Sydney asserted that negotiations with Sydney Water covered a number of different business models and proposals including "*the provision of sewage collection services by Services Sydney in competition with Sydney Water*" (Services Sydney 2004d). It is not clear, however, from the information provided by Services Sydney, whether access to the transportation and interconnection services was sought for the purpose of enabling Services Sydney to compete in the retail Sewage Collection Market.
- 6.54 Sydney Water stated that it regards the interconnection service to enable sewer mining as a government monopoly service "*which Sydney Water is required to provide*" and that it "*has not and would not deny access to the sewer mining service*" (Sydney Water 2004b, p.7). It does, however, reserve the right to impose terms and conditions of access (other than in respect of price which is regulated by IPART) in order to maintain the operational and physical integrity of the network. There is no dispute resolution mechanism in respect of these terms and conditions. Sydney Water stated that there have been about ten requests for flow information for locations near golf courses but that none of these initial enquiries resulted in requests for interconnection to sewer mine. The only sewer mining operation currently within the Sydney Water's sewage reticulation network is that of SOPA. While a service provider may exercise market power by imposing overly onerous or restrictive terms and

conditions of access, there is no evidence that Sydney Water has done so.

6.55 In the absence of evidence of an actual use of market power to adversely affect competition, the Council needs to consider whether Sydney Water has the requisite ability and incentive to exercise market power. To do so, it applies the test enunciated by Ordovery and Lehr in the Moomba to Sydney gas pipeline matter. In essence, the test considers that there are three means by which a service provider may seek to use its presumed monopoly power to adversely affect competition, namely (NCC Guide, see para 5.87):

- (a) the service provider may impose terms and conditions that result in the extraction of monopoly returns for the provision of the services;
- (b) the service provider may engage in explicit or implicit price collusion; and/or
- (c) the service provider may engage in strategic behaviour designed to leverage its monopoly power into the dependent market(s) in order to advantage a vertically related affiliate.

6.56 Sydney Water is a wholly vertically integrated service provider of sewage services. No other entity provides sewage reticulation network services within the Sydney area. Accordingly, the second limb of this market power test is not directly relevant. The first limb continues to have application. As does the third limb even though Sydney Water is a vertically integrated service provider, leveraging between the different levels of its operation can occur.

6.57 Services Sydney argues that Sydney Water has both the ability and incentive to exercise market power through refusing access to its facilities to adversely affect competition in the Sewage Collection Market. Services Sydney also suggests that Sydney Water's current prices appear to be above competitive levels (notwithstanding that retail prices are regulated by IPART) and that this is indicative of an exercise of monopoly power. In support of this view, Services Sydney refers to an IPART independent consultant's report by Halcrow which was of the view that Sydney Water could achieve further cost savings and reduce corporate overheads (Services Sydney 2004a, p.22). For the reasons set out in paragraph 6.62, the Council does not accept Services Sydney's argument.

- 6.58 As discussed above, Sydney Water argued that there is no market for the transportation and interconnection services distinct from the Sewage Collection Market. Sydney Water argues in the alternative that criterion (a) is not satisfied as Sydney Water does not have the requisite market power to adversely affect competition and that in any event, competition in the dependent market would not be promoted through access. On the issue of market power, Sydney Water argues that the regulatory constraints imposed on it prevent it from exercising any market power which it may have in the Sewage Collection Market.
- 6.59 Sydney Water operates its sewage network subject to significant regulation and regulatory oversight. Sydney Water's enabling legislation is the *Sydney Water Act 1994*. The Act sets out Sydney Water's objectives which include the protection of public health, to operate taking into account the interests of the community and the protection of the environment. The Act provides for the grant of an Operating Licence to Sydney Water for the provision of (among other services) sewage services. Sydney Water's current Operating Licence confers the right to provide, construct, operate, manage and maintain the sewage network and specifies that in doing so, it must comply with quality and performance standards specified in the Operating Licence. The Act also provides for universal Customer Contracts which further specify terms and conditions under which Sydney Water must provide sewage and water services.
- 6.60 IPART, as the Operating Licence Regulator, is responsible for auditing Sydney Water's compliance against its licence obligations. The Environment Protection Agency (EPA) further monitors aspects of Sydney Water's operations including the pollution discharge from its sewage ocean outfalls. Failure to comply with various service and environmental standards can attract serious penalties including, in some instances, criminal liability.
- 6.61 IPART determines the current integrated sewage tariff able to be charged by Sydney Water. It is required to take into account a range of matters including the cost of providing the service, the appropriate rate of return, efficiency in supply, the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service, and the need to promote competition in the supply of the relevant services. In addition, IPART is required to take into account the need to maintain ecologically sustainable development, social impacts of the determination and standards of quality, reliability and safety of the services concerned (IPART Act

s.15(1)). IPART's current price determination is for the period 1 July 2003 to 30 June 2005 and was issued in May 2003.

- 6.62 IPART adopts a standard regulatory building blocks approach to determining regulated tariffs by determining the revenue required by Sydney Water as the sum of required operating expenditure, depreciation and return on assets. The required operating expenditure is determined by reference to what an efficient operating business could be expected to need to operate the business effectively. The operating inefficiencies noted in Halcrow's report and referred to by Services Sydney in its application, were taken into account by IPART in its tariff determination. Accordingly, the Council does not accept Services Sydney's argument that the findings of the Halcrow report are evidence that Sydney Water's current tariffs are above competitive levels.
- 6.63 The regulatory framework within which Sydney Water operates is clearly designed to regulate a single vertically integrated service provider, namely Sydney Water. That is not to say that it prevents other entities from providing services. Rather, the regulatory constraints in relation to price, service standards and quality set out in the Sydney Water Act, the Operating Licence and the Customer Contracts in particular, while relatively prescriptive, are directed at Sydney Water's relationship with the end customer and not potential competitors (with the exception of sewer mining). There is no regulatory prescription on Sydney Water in respect of the provision of transportation services to potential competitors. As such, there is no regulatory constraint on the exercise of its natural monopoly market power in respect of the provision of the transportation service in the primary market. By leveraging its market power in such a way, Sydney Water could adversely affect competition in a dependent market such as the Sewage Collection Market.
- 6.64 In respect of the provision of the interconnection service, the only term of access that is regulated within the current regulatory framework is price. IPART's current price determination sets the maximum price for the extraction of effluent at zero with the capital costs of interconnection to be borne by the sewer miner (IPART 2003, Schedule 2, para 8). There is currently no right of access to the interconnection service. By exercising its market power in respect of the interconnection service by for example, denying access, Sydney Water could adversely affect competition in a downstream market through the leveraging of its upstream market power.

- 6.65 While Sydney Water has the ability to exercise its market power so as to adversely affect competition in the downstream market, the issue arises as to whether it has an incentive to do so. Sydney Water appears to have the incentive to use its market power in respect of the transportation service by, for example, refusing access in order to keep its customer base and retail revenue stream. The incentive to exercise market power in respect of the interconnection service may, however, be more tempered. While, Sydney Water argues that the cost of transporting and treating sewage is almost entirely fixed and avoidable costs as a result of sewer mining are small (Sydney Water 2004a, para 124), increased recycled water use may reduce demand for potable water. This may give rise to some avoidable cost savings to Sydney Water and, perhaps more significantly, assist it to meet its Operating Licence water demand management obligations. Sydney Water also stated that it would not deny access to the sewer mining service as it felt required to provide the service notwithstanding the absence of any statutory requirement compelling it to provide access (see paragraph 6.54).
- 6.66 While these factors may temper the incentive to exercise market power in respect of the interconnection service, the Council does not consider that it entirely redresses that incentive. The factors while noteworthy do not appear to be commercially significant. In addition, the factors may be counterbalanced by the costs involved in negotiating terms and conditions of access in the absence of significant commercial advantage to Sydney Water or other regulatory compulsion.

Would access make any difference to the Sewage Collection Market?

- 6.67 Although Sydney Water has the requisite market power for the purposes of criterion (a), the Council needs to consider whether the structure of the dependent market is such that the constraint of Sydney Water's market power through declaration would not, in any event, promote competition.
- 6.68 In its issues paper, the Council asked for views as to whether competition is possible in the potential dependent market(s). In the case of the Sewage Collection Market, the collection and transportation components of the bundled service are provided through the natural monopoly reticulation network. Access is unlikely to promote competition in the Sewage Collection Market if the treatment and waste disposal elements of the bundled sewage collection service can only be provided by facilities which are natural

monopolies. (The test for a natural monopoly facility is discussed above under criterion (b)).

- 6.69 On the issue of whether the Sewage Collection Market is potentially contestable, Services Sydney states in its application that:

The Sewage Collection Market is inherently contestable. The minimum efficient scale for a sewage treatment plant is such that more than one supplier can feasibly supply services in competition with another. In this regard, it is instructive to note that Sydney Water itself has numerous sewage treatment plants. Further, to ensure its viability, Services Sydney has the capacity to develop its treatment infrastructure on a modular basis. (Services Sydney 2004a, p. 19)

- 6.70 While Sydney Water does in fact have numerous sewage treatment plants operating throughout the Sydney area, it is not correct to say that these plants “compete” with one another. Rather, each treatment plant provides services to geographically distinct areas – no plant can compete for the provision of treatment and disposal services within the geographic area servicing any other plant.

- 6.71 Services Sydney further argues that the fact that it seeks to provide sewage collection services in competition with the services provided by the North Head, Bondi and Malabar treatment plants and its belief that it would be commercially viable to do so is indicative of the potential for competition in the market. The commercial veracity of this proposal or underlying business model is not directly relevant to the Council’s consideration under criterion (a) (Sydney Airport decision, para 19). Rather, the Council must determine whether declaration would alter the structure of the relevant market and competitive environment such that competition would be promoted. This structural approach recognises the fact that if declared, access to the transportation and interconnection services would be available to any third party and not just the applicant.

- 6.72 Sydney Water did not argue that the Sewage Collection Market is a natural monopoly market, but considered the ability and incentive of third parties to profitably enter the market. Sydney Water argued that no such incentive or ability exists and as such, competition would not be promoted through declaration of the services.

- 6.73 In support of this conclusion, Sydney Water advances two arguments. The first is that IPART’s regulated bundled sewage service tariff is below the price required by an efficient new entrant as it does not reflect the full extent of costs that would be faced by

such an entrant. Sydney Water argues that IPART's price determination undervalued its regulatory asset base well below its optimised depreciated replacement cost (ODRC). It argues that a hypothetical new entrant would require an appropriate return on its capital base valued at its ODRC value in order to make market entry viable. Sydney Water assumed an appropriate rate of return of 7% rather than the 5.9% accepted by IPART, presumably reflecting increased risk resulting from the prospect of competitive new entry. On the basis of Sydney Water's ODRC valuation of its regulated asset base and the increased rate of return required by a hypothetical new entrant, Sydney Water estimates that annual revenue from the wastewater sector would need to increase by 88% before new entry would be viable. On top of this, a new entrant would incur retail costs making new entry even less viable given present tariffs.

- 6.74 In contrast, Services Sydney claims that its business model would be commercially viable if it were to charge the same for sewage services as Sydney Water. It further states that market research suggests consumers may be willing to pay more to Services Sydney for the provision of more advanced treatment services that do not rely on ocean discharge for waste disposal (Services Sydney 2004a, p.15). Services Sydney did not factor into its business model an anticipated specific price that would be payable to Sydney Water for the transportation and interconnection services. Rather, it assumed a straight pass through of such charges in a competitively neutral manner with Sydney Water.
- 6.75 As discussed at paragraph 6.21, IPART is required to take into account a range of factors in its price determinations including underlying costs, the protection of consumers from abuses of monopoly power, efficiency and the promotion of competition. It is not the role of the Council to second guess the regulatory approach of an independent regulator such as IPART. Rather, it is satisfied that there is nothing in the pricing principles that IPART is required to apply that leads to the conclusion that the pricing outcome would preclude entry by an efficient competitor.
- 6.76 The second reason advanced by Sydney Water as to why there is no incentive or ability for any third party to profitably enter the Sewage Collection Market is that the regulatory approvals and processes required to enable a person to compete in the market make profitable new entry unlikely.

6.77 Services Sydney noted in its application that Sydney Water’s operating licence is expressly non-exclusive and does not prevent another party from obtaining a licence to provide services such as retail sewage services in the Sydney area³ (Services Sydney 2004a, p.6). In response, Sydney Water states that (Sydney Water 2004a, para 157):

the Sydney Water Act, IPART regime and Water Management Act do not contain any provisions which expressly permit a commercial third party to:

(a) provide those services within an area of operations of an existing holder of an Operating Licence or of a public water authority, as that term is defined in the Waste Management Act; or

(b) charge customers for the provision of sewage collection services; or

(c) enter land and perform the range of functions associated with the provision of sewerage services.

6.78 While the current regulatory regime does not expressly foreclose the prospect of competing sewage service provision, it does not expressly provide for such a model. This is not in itself surprising given that the regime has developed in the context of a single vertically integrated service provider, namely, Sydney Water. There is little doubt that third parties seeking to provide sewage services would be required to be subject to a degree of regulation particularly in respect of service standards, and customer and environmental protection measures. Third parties would also be subject to planning and development regulatory processes for infrastructure developments. In the case of large ambitious projects such as that of Services Sydney, compliance with such processes would be significant whereas in more modest, localised projects such as sewer miners wanting to offer retail services, the costs would be far lower. Such compliance costs would be taken into account by prospective new entrants. While likely to be material, the Council has no evidence to suggest that such costs would be so prohibitive in all cases of prospective new entry that such new entry could not occur.

³ Section 4.1.2 of the license states that it “does not prohibit another person from providing services in the Area of Operations that are the same as or similar to the Services, if the person is lawfully entitled to do so”.

- 6.79 Sydney Water further argues that there is no reasonable prospect of any plant being developed within the relevant timeframe which would deliver the benefits which the application asserts will arise as a result of declaration; namely, a reduction in the price of sewage collection services and the environmental benefits (Sydney Water 2004a, para 131(iii)). As discussed above at paragraph 6.3, criterion (a) is concerned with whether declaration will improve the environment and opportunities for competition such that competitive outcomes are more likely to occur. The competitive process is expected to deliver efficient outcomes. Such outcomes may, although not necessarily, result in lower prices and environmentally superior service delivery.
- 6.80 A further argument advanced by Sydney Water is that declaration would not lead to any advantages not currently available through sewer mining. The Council does not agree with this assessment. The only term and condition of access that is currently regulated to facilitate sewer mining, is price. There is no right of access. The terms and conditions of access (other than as to price) are entirely a matter of negotiation between Sydney Water and the prospective sewer miner. Failure to reach agreement would result in no access being given. In contrast, declaration of the interconnection service would confer a right of access such that failure to reach agreement would entitle the parties to seek arbitration by the ACCC of the terms and conditions of access under Part IIIA of the TPA.
- 6.81 A second important difference between the benefits arising under current sewer mining arrangements and that if the services were declared, is direct access to the customer relationship through the provision of retail services. Sewer miners off-take effluent for the purpose of treatment and recycled waste water use. Sewer miners do not sell retail services to customers and accordingly, do not receive sewage service treatment charges from customers. Such charges continue to be paid to the reticulation network service provider even though the off-taken portion of effluent is treated by the sewer miner. By conferring a right of access to the transportation service, sewer miners could sell retail services to customers and collect retail charges. This may make sewer mining projects more commercially viable. (This is discussed in further detail at paragraphs 6.95 to 6.101).
- 6.82 While access to a revenue stream could be achieved with a negative sale price determination from IPART (that is, one requiring Sydney Water to pay a sewer miner), this is unlikely to deliver the same

competitive benefits as direct access to the customer relationship. First, the regulated negative price may diverge significantly from the income that would be received from customers through a direct retail relationship net of transportation and interconnection service charges. Second, there may be dynamic benefits in having a direct relationship with customers that includes diversifying product offerings through innovative retail initiatives.

6.83 Services Sydney further argues that the current IPART sewer mining price determination which is applicable from 1 July 2003 to 1 July 2005 is not of sufficient length to provide the commercial certainty required for the provision of treatment and disposal services (Services Sydney 2004c, p.12). This argument presumes that any declaration would be in place for a lengthier period. As part of its price determination, IPART also decides the period for which the determination will remain in force. This decision is based on a number of factors including the certainty of forward looking investment proposals. There would be nothing preventing a potential sewer miner from submitting relevant information to IPART in favour of a lengthier price determination.

6.84 In respect of the evidential burden faced by the Council in assessing criterion (a), Sydney Water argues that:

Whilst it may be said that declaration is but the first stage in the process of obtaining access to a particular service, the Council must nonetheless be satisfied that access to those services would promote competition. If it cannot be established that there is any reasonable likelihood of the proposal being developed by Services Sydney or another third party in the relevant time frame because, for example, of legislative changes or approvals which would be required, the Council cannot be satisfied. This does not seek to say that declaration must be the last link in the chain but there must at least be material before the Council from which it can properly conclude that the developments said to give rise to a promotion of competition are reasonably likely to occur. (Sydney Water 2004a, para 160)

6.85 The Council largely agrees with Sydney Water's interpretation of the evidential test faced by the Council. It does, however, stress that the focus of criterion (a) is whether declaration will improve the opportunities and environment for competition such that competitive outcomes are more likely to occur (see paragraph 6.3). It does not require the Council to be satisfied that new entry will occur. Rather, the focus is on whether declaration will remove a barrier to entry (such as by constraining the exercise of market power by the service

provider) so that new entry will be made easier. The enhanced prospect of new entry as a result of declaration must be material and not negligible.

- 6.86 Implicit in the analysis required under criterion (a), is consideration of the effect of declaration on competition over a relevant time frame. Market conditions change over time with demand and supply characteristics being affected by factors such as technological change, regulatory developments and general economic conditions. In the case of the present application, relevant future market developments include government initiatives for water and environmental reform, and evidence that supply will continue to exceed demand for potable water in the Sydney area. However, while the relevant time frame cannot be specified with precision, the Council is reluctant to adopt a particularly long time frame for two reasons. First, evidence of long term market developments is inherently more uncertain than evidence of short term developments. As a consequence, the Council tends to give less weight to such evidence. Second, an access seeker can apply to the Council for declaration under Part IIIA at any time in the future as market developments occur and/or become more certain.
- 6.87 Services Sydney's proposal is large and will have a significant lead time between commencement of infrastructure development and the delivery of retail services to customers. Evidence that the project would proceed within the relevant timeframe as a result of declaration would be sufficient even if delivery of competing retail services would occur outside of the relevant time frame.
- 6.88 A further prospect of new entry during a short to medium timeframe can also occur on a smaller scale to that proposed by Services Sydney. For example, sewer miners such as SOPA may compete with Sydney Water for the provision of retail services to customers within the SOPA geographic "zone of influence" to whom it is currently providing treatment services and recycled water. By providing retail services, SOPA could charge customers directly for treatment and develop the retail relationship with customers more generally. While this is possible and may become increasingly attractive if the market for recycled water develops (see paragraph 6.95 to 6.101), the Council did not receive any submission advocating the increased likelihood of such an outcome following declaration.
- 6.89 There is little doubt that the provision of competitive sewage retail services through the use of a common reticulation network would be unique. The Council is unaware of any such model existing

elsewhere. In England and Wales, different service providers provide sewage treatment services within geographically distinct areas serviced by their own reticulation networks. There are examples of inset appointments whereby sewage is treated, typically on-site, by an entity other than the sewage network service provider for that specific geographic area. Inset appointments do not generally involve use of the incumbent service provider's reticulation network.

6.90 In 2002 the UK Government introduced a framework for the competitive provision of potable water to customers through a common carriage system under which competing water service providers could use the existing water reticulation network. While the framework applies to the sale of potable water it does not extend to the provision of sewage services. The Government noted evidence of a significant level of existing competition in treatment through for example, inset appointments, on-site treatment and tankered effluent transport. The Government concluded that to extend the regime to the provision of sewage services would require “*a complex and costly regime*”. It also noted that notwithstanding a call for submissions on whether the regime should apply to the provision of sewage services, “*[n]o interest was expressed from respondents for doing so*” (DEFRA 2002, para 35). This is a clear point of distinction between the situation in England and Wales and that faced by the Council in considering Services Sydney's application.

6.91 However, in guidelines to enable water infrastructure service providers to produce access codes for entities seeking common carriage access rights for potable water, the Office of Water Regulation in England (Ofwat) left open the possibility that access be facilitated for the common carriage of sewage. The guidelines noted that:

The guidance refers only to common carriage of water. Much of it would also apply to common carriage of wastewater, although we are not aware of any instance of this. We will give further thought to providing guidance on common carriage for wastewater, though we do not see a need for it at the moment. If companies are approached for sewerage, they must treat it in the same way as an application for water common carriage. (Ofwat (2002))

6.92 Sydney Water is the only provider of the sewage collection services in the Sydney area. Services Sydney has stated its intention to enter the Sewage Collection Market in competition with Sydney Water. To do so, it requires access to the transportation and interconnection services. Declaration would provide it with such access. As such,

declaration could be said to “open the door” to Services Sydney’s entry into the market. The removal of such barrier to entry would improve the opportunity and environment for competition more broadly. For example, the prospect of smaller scale decentralised treatment service providers such as sewer miners, entering the retail market may be improved. For these reasons, the Council considers that criterion (a) is satisfied in respect of the Sewage Collection Market.

Promotion of competition in the Recycled Water Market

- 6.93 In applying criterion (a) to the Recycled Water Market, the first issue is to consider whether Sydney Water has the ability and incentive to exercise its natural monopoly market power to adversely affect competition in the market. Other than SOPA, Sydney Water is the only provider of recycled water services within the Sydney area. It is also the only provider of reticulated potable water within the Sydney area which provides the alternative to recycled water for appropriate use. IPART notes in its price determination that it does not want to hinder Sydney Water in promoting and expanding the use of recycled waste water but that at the same time, *“it is required to protect recycled water customers from the risk that Sydney Water may abuse its power as the sole provider of recycled water services”* (IPART, p40).
- 6.94 The price at which recycled water is supplied by Sydney Water is not regulated other than for the Rouse Hill residential development which is regulated by IPART. Instead, IPART has adopted a light-handed approach of requiring Sydney Water to develop recycled water pricing principles prior to the 2005 price review. Prices could be regulated in the future *“if it is believed that Sydney Water has made unfair advantage of its position as a monopoly provider of recycled water”* (IPART 2003, p.40).
- 6.95 As discussed above at paragraph 6.81, declaration of the transportation and interconnection services would enable third parties to contract directly with customers thus giving them access to customer charges for the bundled retail sewage service. (Transportation and interconnection charges would be payable to Sydney Water by the access seeker for use of the reticulation network). Access to the customer base may improve the commercial viability of third party treatment and waste water recycling projects, such that declaration can be said to promote competition by encouraging new entry.

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- 6.96 The Council, however, has no firm evidence to support this scenario. It notes that SOPA currently provides recycled water at a loss. It estimates the operating cost (not taking into account the cost of capital) of production of its recycled water at \$1.60 per kilolitre whereas it charges 83 cents per kilolitre - a loss of 77 cents per kilolitre (ATSE 2004, pp.152 and 146). It is not at all clear that the ability to access retail charges for sewage collection services would adequately off-set this loss.
- 6.97 The price at which SOPA sells its recycled water was recommended by IPART and was set by reference to the price of potable water rather than by reference to the underlying costs of recycled water provision. This is a common approach in respect of the pricing of recycled water world-wide and reflects a consumer preference for potable water in the absence of a material price differential (ATSE 2004, p.152). As noted by the Australian Academy of Technological Sciences and Engineering:
- [Recycled] Water pricing for most projects was driven by the need to provide incentives for potential customers, with very few projects directing their pricing strategies at full capital, operational and maintenance cost-recovery. Most relied on intra- or interagency transfers for financial viability.* (ATSE 2004, p.46)
- 6.98 The water industry is the focus of significant reform activity generally including initiatives under the National Competition Policy water reform program, and most recently, the COAG National Water Initiative. The COAG National Water Initiative includes commitments by governments to increase the use of recycled water and to continue implementation of full-cost recovery pricing for water. Such measures are designed “*to encourage greater re-use and recycling of wastewater where cost effective...*” (COAG 2004).
- 6.99 In its mid-term review of Sydney Water’s demand management strategy, IPART highlighted the existing and increasingly significant imbalance between the supply and demand of water in the Sydney area (IPART 2002). On 1 July 2004, the NSW Government launched the BASIX (Building Sustainability Index) scheme, which is designed to make new homes and residential developments more water and energy efficient. Planning approval will be contingent on the implementation of water and energy efficiency designs for new homes. The scheme is intended to reduce water consumption of new homes by 40%. To achieve this target, the use of recycled waste water, rainwater tanks and dual reticulation (recycled water and recycled waste water) will be encouraged. Sydney Water anticipates

that the BASIX requirements are likely to generate greater interest in sewer mining from developers (Sydney Water 2004b, p.8).

- 6.100 The need to address Sydney's potable water supply and demand imbalance together with government policy initiatives for water reform can be expected to result in an increase in demand for recycled water. This may occur through either potable water becoming more cost reflective or through regulatory design as is the case with the BASIX scheme. This would in turn result in more favourable conditions for new entry in the market for recycled waste water.
- 6.101 Declaration of the interconnection service would confer a right of access that does not currently exist to a potential competitor in the recycled water market wishing to engage in sewer mining. In respect of the transportation service, the Council again stresses that declaration is concerned with improving the environment and opportunities for competition. Although actual new entry may not occur until such time as other factors eventuate, such as the implementation of government policies in respect of water pricing, declaration will remove a significant barrier to entry by ensuring that access to the network which is necessary to establish retail customer relationships, cannot be denied. Accordingly, the Council is satisfied that criterion (a) is satisfied in respect of the Recycled Water Market.

Conclusion

- 6.102 The Council concludes that access to the transportation and interconnection services for each facility would promote competition in both the Sewage Collection Market and the Recycled Water Market. Accordingly, each of Services Sydney's applications for declaration satisfy criterion (a).

- 7 s. 44G(2)(c) - that the facility is of national significance, having regard to:**
- (i) the size of the facility; or**
 - (ii) the importance of the facility to constitutional trade or commerce; or**
 - (iii) the importance of the facility to the national economy**

Background

- 7.1 Criterion (c) is a test of materiality, ensuring only those facilities that play a significant role in the national economy fall within the scope of Part IIIA. The Council notes that while declaration is concerned with access to services rather than facilities, criterion (c) relates national significance to the facility providing the service.
- 7.2 In identifying infrastructure of national significance, the Council has regard to the following matters listed in section 44G(2)(c):
- (i) the size of the facility; or*
 - (ii) the importance of the facility to constitutional trade or commerce; or*
 - (iii) the importance of the facility to the national economy.*
- 7.3 A facility need only satisfy one of these benchmarks to satisfy criterion (c). The use of the word “or” following each subsection clearly means that the criterion can be satisfied if any one of the three benchmarks is satisfied.

Assessment

- 7.4 The Council concluded that the North Head, Bondi and Malabar Reticulation Networks each constitute a relevant facility for the purposes of an application for declaration (see paragraph 4.28). For the transportation and interconnection services provided by each of these facilities to be declared, each of these three facilities must be nationally significant in satisfaction of criterion (c).
- 7.5 In its application, Services Sydney provided information in support of the argument that the Sydney Sewage Reticulation Network was nationally significant in satisfaction of criterion (c) (Services Sydney 2004a, p. 25). In its submission to the issues paper, Services Sydney argued that were the Council to conclude that each of the North Head, Bondi and Malabar Reticulation Networks were a relevant facility, criterion (c) would be satisfied in respect of each on the same basis as the Sydney Sewage Reticulation System - namely, on the basis of size, importance to trade and commerce and the national economy (Services Sydney 2004b, p.11).
- 7.6 In terms of size of each facility, Services Sydney provided the following information in its application (Services Sydney 2004a, pp. 9-10):
- (a) *North Head Reticulation Network* – Services a population of 1.106 million people and an area of 42,000 hectares.
 - (b) *Bondi Reticulation Network* - Services a population of 258,252 people and an area of 3,900 hectares.
 - (c) *Malabar Reticulation Network* - Services a population of 1.695 million people and an area of 66,000 hectares.
- 7.7 Sydney Water argued that the three facilities, examined separately, are unlikely to satisfy the national significance test. It does, however, acknowledge that on the basis of size each of the three facilities may satisfy criterion (c). Sydney Water nonetheless argued that:
- Given the limited geographic scope of each of the three networks, serving distinct population groupings within particular regions of Sydney, whilst significant to Sydney, they could not be said to be of national significance.* (Sydney Water 2004a, para 168)
- 7.8 There is little question that each of the three facilities are substantial in terms of size. Sydney Water provided the following

information on the size of each of the three facilities (Sydney Water 2004b, p.10):

	Length	Sewage throughput (average dry- weather flows)	Depreciated optimised replacement cost
North Head Reticulation Network	6,083 km	313 ML/day	\$2,243.6 million
Bondi Reticulation Network	762 km	130 ML/day	\$260.5 million
Malabar Reticulation Network	7,154 km	480 ML/day	\$2,878.8 million

7.9 In respect of the second factor to be taken into account under criterion (c), section 44B defines “constitutional trade and commerce” to mean trade and commerce between the jurisdictions or between Australia and a place outside Australia. The services provided by each of the three facilities are sold solely within the geographic area of Sydney served by each facility. As such, the trade in services provided by each of the facilities are unlikely to constitute (at least on the basis of the direct provision of the services) constitutional trade or commerce. However, each of the facilities provides a service essential to the health and safety of a significant population base which would in turn contribute to economic activities of a constitutional trade and commerce nature.

7.10 While each of the facilities serves a discrete geographic area within Sydney, this does not preclude them from being of importance to the national economy. Sydney is Australia’s largest city in terms of population as well as economic activity. As noted by Services Sydney, Sydney accounts for approximately 30 per cent of Australia’s national gross domestic product. Each of the facilities service a significant area of Sydney in terms of population as well as economic activity. The smallest facility in terms of size, that is the Bondi Reticulation Network, services the central business district of Sydney. The other two facilities service other key commercial centres including the city of Parramatta.

Conclusion

- 7.11 The Council is satisfied that on the basis of size and importance to the national economy in particular, each of the North Head, Bondi and Malabar Reticulation Networks are nationally significant and satisfy criterion (c).

8 s. 44G(2)(d) - that access to the service can be provided without undue risk to human health or safety

Background

- 8.1 The rationale for criterion (d) is that declaration should not occur where access or increased access to a service provided by a facility may pose a legitimate risk to human health or safety.
- 8.2 Some facilities require a degree of spare capacity to provide appropriate safety margins. In addition, access to facilities may need to be governed by conduct codes and operational guidelines. For a service to be declared, access must be possible without compromising system and operational integrity and safe operability.
- 8.3 The existence of relevant safety regulations may suffice to satisfy criterion (d) where these regulations deal appropriately with any safety issues arising from access to the facility under consideration. Alternatively, criterion (d) may be satisfied where it is possible to address any safety concerns raised by access to the service through the terms and conditions on which access is provided.
- 8.4 The issues under criterion (d) are common to all six services covered by Services Sydney's application for declaration (see paragraph 4.28). As such, the analysis set out below applies equally to each service.

Assessment

- 8.5 Services Sydney submits that it is unaware of any reason why access to the Services cannot be provided without undue risk to human health or safety. It argues that the health and safety regulatory requirements imposed and administered by the Environment Protection Authority (EPA) and Department of Health ensures that criterion (d) would be satisfied. In addition, health and safety issues can be addressed through the terms and conditions of access (Services Sydney 2004a, p. 26).

- 8.6 Sydney Water is subject to a comprehensive regulatory regime concerning health and safety matters. Sydney Water notes that the *Sydney Water Act 1994*, a Memorandum of Understanding with the New South Wales Department of Health, and Sydney Water's Operating Licence all impose public health requirements on it (Sydney Water 2004a, paras 173-175). In addition, Sydney Water's sewage system is currently licensed by the EPA which sets performance standards and monitoring requirements under the *Protection of the Environment Operations Act 1997* (NSW). Sydney Water also has specific legislated obligations in relation to 114 hazardous substances as set out in Schedule 10 of the *Sydney Water Act 1994* (NSW).
- 8.7 Sydney Water considers that the interconnection service can be provided without undue risk to human health or safety as demonstrated by the practice of sewer mining which requires interconnection. In relation to the transportation service, Sydney Water argues that significant changes would need to be made to the regulatory regime concerning health and safety if third parties were granted access. A number of Sydney Water's regulatory obligations carry criminal liability. While third parties can be required to comply with the regulatory obligations as part of their terms of access, it is not possible to assign criminal liability in the absence of enabling legislation. As such, Sydney Water would continue to be liable in the event of breach (Sydney Water 2004a, para 178). Sydney Water acknowledges, however, that the issue could be addressed through revision of the regulatory regime such that the obligations carrying criminal liability for breach are imposed directly on the third party access seeker. The cost of amending the regime is a relevant factor to be taken into account under criterion (f).
- 8.8 Sydney Water states that the transportation and interconnection services could be provided to third party access seekers without undue risk to human health and safety provided sufficient flow was left in its system to ensure full operational functionality. The network relies on certain levels of effluent volumes in order for adequate flows within the system to be maintained and to ensure that significant ocean water ingress does not occur. Sydney Water estimates that if more than 40% of dry weather flows was extracted from the network, the system's functional operability may be jeopardised. Addressing the operational issues that would arise, would involve a cost. That cost is relevant for consideration under criterion (f).

- 8.9 The Council sees no reason why the terms and conditions of access cannot deal with issues necessary to ensure the safe operation of each facility and the provision of the services. The costs of providing safe access are a matter for consideration under criterion (f).

Conclusion

- 8.10 Access to the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks can be provided without undue risk to human health and safety. Accordingly, each of the applications satisfy criterion (d).

9 s. 44G(2)(e) - that access to the service is not already the subject of an effective access regime

Background

- 9.1 Infrastructure services already covered by an “effective access regime” cannot be declared for access under Part IIIA. The main purpose of criterion (e) is to allow State or Territory governments to develop industry-specific access regimes compliant with the Competition Principles Agreement that apply to the exclusion of Part IIIA.
- 9.2 The term “effective access regime” is not defined in the TPA. Some guidance as to its meaning can be found in section 44G(3) which provides that when considering whether an access regime established by a State or Territory amounts to an effective access regime, the Council must apply the relevant principles in the Competition Principles Agreement.

Assessment

- 9.3 There is no State access regime that has been determined as effective under sections 44M and 44N of the TPA that would cover the transportation or interconnection services provided by any of the North Head, Bondi or Malabar Reticulation Networks.
- 9.4 Services Sydney submits that although Sydney Water’s retail sewage service charges are regulated by IPART, this does not constitute an effective access regime for the purposes of criterion (e). This is because the price regulatory regime does not govern all terms and conditions of access, including a right to negotiate access or enforcement procedures in relation to that right (Services Sydney 2004a, p. 26).
- 9.5 Sydney Water agrees that the IPART regulatory arrangements do not constitute an effective access regime for the transportation service, although it argues, that it may do so in respect of the interconnection service (Sydney Water 2004a, para 185).

- 9.6 The Council does not consider that the IPART price regulation of sewer mining constitutes an effective access regime for interconnection services under criterion (d). Price is the only term and condition of access that is regulated under the regime. The other terms and conditions, including the right of access itself, is a matter of negotiation between the third party access seeker and Sydney Water. The regime does not provide for any dispute resolution mechanism. Although recourse to the courts may be available where Sydney Water acts in a manner inconsistent with its statutory obligations, this process is uncertain, time consuming and unsatisfactory in enforcing a right of access as envisaged by the national access regime and Part IIIA of the TPA.
- 9.7 Accordingly, the Council concludes that the interconnection and transportation services provided by each of the facilities are not subject to an effective access regime.

Conclusion

- 9.8 The Council concludes that the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks are not the subject of an effective access regime. Accordingly, criterion (e) is satisfied in respect of each application.

10 s. 44G(2)(f) - that access (or increased access) to the service would not be contrary to the public interest

Background

- 10.1 Criterion (f) requires the Council to be satisfied that access (or increased access) to the service would not be contrary to the public interest. The term “public interest” is not defined in the TPA, and is difficult to define with any great specificity. This is partly because conceptions of the public interest can change over time as community attitudes change.
- 10.2 The public interest criterion does not constitute an additional positive requirement which can be used to call into question the result obtained by the application of criteria (a) to (e). Criterion (f) accepts the results derived from the application of (a) to (e), but enquires whether there are any other matters which lead to the conclusion that declaration would be contrary to the public interest (Duke EGP decision, para 145).
- 10.3 While no attempt to list public interest considerations can be exhaustive, matters which might be considered include the following open-ended list of items in clause 1(3) of the Competition Principles Agreement:
- ecologically sustainable development;
 - social welfare and equity considerations, including community service obligations;
 - government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity;
 - economic and regional development, including employment and investment growth;
 - the interests of consumers generally or of a class of consumers;
 - the competitiveness of Australian businesses; and
 - the efficient allocation of resources.

- 10.4 The Council considers the issues under criterion (f) to be identical for each of the services covered by Services Sydney's application for declaration as detailed in paragraph 4.28.

Assessment

Environmental issues

- 10.5 Services Sydney stated that due to the competition that would be promoted and the significant environmental and resource economic benefits flowing from implementation of its business proposal, it knows of no reason why declaration would be contrary to the public interest (Services Sydney 2004a, p. 27). Services Sydney identified the environmental benefits of the Sustaining the City proposal as including a reduction in the disposal of contaminated sewage through ocean outfalls, the maximum utilisation of large quantities of renewable energy generated by the sewage treatment process and the potential use of treated recycled waste water (Services Sydney 2004a, pp. 12-13).
- 10.6 The Council received a significant number of submissions expressing support for the purported environmental benefits of Services Sydney's Sustaining the City proposal.
- 10.7 The declaration criteria are essentially concerned with the structure of markets and the process of competition rather than with specific business models and specific potential competitors. Nonetheless, if the process of competition (rather than implementation of Services Sydney's business model itself) that would be facilitated by declaration would be likely to deliver environmentally beneficial or indeed detrimental outcomes compared with the situation without declaration, such matters would be relevant for the purposes of criterion (f).
- 10.8 Sydney Water's sewage services operations are subject to significant environmental regulation. Under the *Environment Operations Act 1997*, Sydney Water is required to obtain a licence from the Environment Protection Authority (EPA) in order to operate its sewerage systems. The EPA has discretion in setting licence conditions and monitors compliance. Sydney Water's Operating Licence also imposes conditions in respect of the environment including targets for pollution reduction, obligations for trade waste

management policies and ecological sustainability development initiatives (clause 9).

- 10.9 Sydney Water's Operating Licence also imposes obligations to manage water demand and reduce per capita consumption by 35% by 2010/11 (clause 8.1). Sydney Water currently has a number of waste water recycling projects in operation including for agricultural use at Picton, Gerringong-Geroa and Richmond, residential use at Rouse Hill and for recreational use at St Marys (ATSE 2004, p.55). A number of submissions received by the Council argue that notwithstanding such initiatives, the level of waste water recycling by Sydney Water is low and that it has made poor progress against the water conservation targets set in its Operating Licence (NCC NSW 2004, p.2). According to figures contained in the 2004 review undertaken by the Australian Academy of Technological Sciences and Engineering, entitled *Water Recycling in Australia*, Sydney Water currently recycles approximately 2.3% of effluent (ATSE 2004, p.55).
- 10.10 While the current regulatory regime within which Sydney Water operates as a vertically integrated monopoly service provider provides for environmental concerns, it is relevant to consider whether the process of competition through declaration would of itself be likely to have a particular environmental result. The Council concluded under criterion (a) that declaration would promote competition in the Sewage Collection Market and in the Recycled Water Market. Evidence of new cost effective environmentally friendly technologies or market demand for "green" treatment such that a new entrant would be likely to adopt such technology or offer "green" products, may suggest that the process of competition would deliver environmentally beneficial outcomes. In this regard, the Council was provided with market research data submitted by Services Sydney that customers would be willing to pay more for "green" sewage treatment which did not involve ocean waste discharge (Services Sydney 2004a, p.15 and Confidential Attachment 15).
- 10.11 Sydney Water argued that environmental benefits claimed by Services Sydney in its application are not causally related to declaration. Rather, they derive from the treatment and disposal functions which are able to be achieved through the existing sewer mining mechanism (Sydney Water 2004a, para 211). The environmental benefits claimed do derive from the treatment and disposal functions. However, for the reasons discussed at paragraph

6.101, the Council considers that declaration would improve the opportunities and environment for third party access seekers wishing to embark on sewer mining type ventures. This may in turn lead to particular environmental initiatives through increased activity in the Recycled Water Market.

10.12 The Council recognises that the environmental issues regarding water and waste water service supply and management are wide ranging and extremely complex. Dr Radcliffe on behalf of the Australian Academy of Technological Sciences and Engineering, expressed concerns in relation to policy development and overarching management for the entire hydrological cycle in the water and wastewater industries. On this basis, the Academy recommended that *“[a]ny separation of responsibilities for the ultimate management of water and wastewater resources should be discouraged”* (ATSE 2004, p.154). This recommendation was not subsequently adopted by the COAG Intergovernmental Agreement on a National Water Initiative.

10.13 Sydney Water expressed a similar point in its submission noting that:

The current system forms part of a broader system of management of the water cycle, from the collection of rain water, provision of drinking water and removal, treatment and disposal of waste water. (Sydney Water 2004a, p.55)

10.14 The Council does not consider that the need for overarching policy direction and implementation of such environmental matters is inconsistent or indeed, precludes the establishment of a competitive sewage service provision model. Rather, the model can be constructed or regulated so that overarching government policy initiatives are appropriately addressed.

Costs versus benefits of declaration

10.15 A key issue for the Council in considering criterion (f) is whether the costs associated with declaration outweigh the benefits.

10.16 The Council concluded under criterion (a) that the opportunities and environment for competition in both the Sewage Collection Market and the Recycled Water Market would be improved as a result of declaration of both the interconnection and transportation services provided by each of the facilities. The benefit of a promotion of competition in this market is greater economic efficiency.

Competition and the prospect of new entry may result in improved product offerings (such as “green” treatment and disposal), and price and service competition. Indirect benefits may also arise from greater asset and cost attribution, and cost reflective pricing for network services. In addition to the prospect of efficiency gains through product, service and price competition, broader environmental benefits may arise as a result of increased waste water recycling activity.

- 10.17 Sydney Water identified a number of costs of declaration which were considered under criterion (a) in response to its argument that the transportation and interconnection services were not economically separable from the retail sewage collection service (see paragraph 6.31). Unlike the issue of economic separability, the costs and benefits of declaration to society as a whole are relevantly considered under criterion (f). Accordingly, each of the costs identified by Sydney Water is relevant.
- 10.18 Sydney Water identified the costs of declaration as including those associated with unbundling the current system including (Sydney Water 2004a, para 212):
- (a) Capital and operating costs of engineering works at the interconnection points estimated at \$15m to \$150m for the capital works with ongoing operating and maintenance costs of \$150,000 per annum;
 - (b) Capital costs of up to \$150m and operating costs of up to \$3 m of the sewer main interconnector which would be incurred by Services Sydney;
 - (c) Costs involved in the establishment of retail customer relationships including measurement devices and retail systems costs estimated to be in the order of tens of millions of dollars, such costs being consistent with the costs of introducing retail contestability in gas and electricity; and
 - (d) Costs involved in the implementation of a systems monitoring or operating role involving interface and co-ordination with third parties.
- 10.19 The Council notes the estimate range at paragraph (a). The costs in paragraph (b) are specific to Services Sydney’s proposal as opposed to the costs associated with competition more generally. Smaller, localised projects such as sewer mining type ventures seeking to offer

retail services would incur significantly lower capital costs than those proposed under Services Sydney's business model. The costs identified in paragraph (c) can vary greatly as contestability in gas and electricity has demonstrated. For example, measurement devices can range from an estimate of consumption based on potable water usage through to volumetric metering systems. Existing measurement devices exist in respect of trade waste customers. The degree and cost of necessary upgrade is not clear.

- 10.20 Sydney Water estimates the costs of the commercial/retail transition costs and ongoing retail interface costs to be in the order of \$5 per customer which would amount to \$7.5 million per year (based on 1.5 million households) (Sydney Water 2004a, para 110). The \$5 per customer figure was derived from an IPART estimate of full retail contestability costs in electricity in December 2000, prior to the introduction of electricity full retail contestability in New South Wales. It is not clear to the Council whether, and if so, to what extent this figure provides an appropriate guide of costs in the case of retail sewage services.
- 10.21 In addition, Sydney Water identified costs associated with the regulatory processes and approvals required by new entrants, and those required to ensure ongoing environmental protection monitoring and compliance by new entrants. Further costs arise in the allocation and management of risk associated with the common carriage of effluent. Responsibility and liability for matters such as overflows and spills would need to be addressed. A number of responsibilities of this nature attract strict or criminal liability, assignment of which would prove problematic in the absence of legislative amendment.
- 10.22 In contrast, Services Sydney states that it does not anticipate that the cost of regulating more than one service provider would be higher than regulating Sydney Water alone. Further, it does not anticipate that any applicable regulatory regime would need to be significantly revised as a result of declaration.
- 10.23 As discussed at paragraph 6.77, the existing regulatory regime does not foreclose the prospect of a third party providing retail sewage services in competition with Sydney Water. Indeed, Sydney Water's operating licence expressly states that it is non-exclusive and does not prohibit another person from providing services provided by Sydney Water under the licence (clause 4.5). However, the regulatory framework including the principal legislative instrument regulating the provision of sewage services, the *Sydney Water Act 1994*, do not

expressly envisage a competitive market structure. It would not be unreasonable to expect that government would seek to revise or at least reconsider aspects of the regulatory framework in response to an anticipated reliance on declaration by an access seeker. As a minimum, a licensing requirement for new entrants with appropriate terms and conditions, and monitoring and compliance mechanisms would need to be established. Risk allocation and management for common carriage matters attracting strict and criminal liability would also likely need attention. The view of the government when considering the introduction of common carriage for sewage services in England and Wales was that it would require “*a costly and complex regime*” (DEFRA 2002, para 35). Ultimately, however, the nature and degree of such regulatory revision is difficult to assess as it would clearly remain a matter for the New South Wales Government.

- 10.24 Sydney Water further argued that having more than one service provider would result in efficiency losses given the complexities associated with addressing the heterogeneity of waste issues. Such losses would be contrary to the public interest. The arguments concerning the heterogeneous nature of sewage were considered in detail under criterion (a). For the reasons set out in paragraphs 6.14 to 6.30, the Council is not convinced that the issue would necessarily give rise to any lost efficiencies. In any event, the costs involved in addressing any resultant concerns would not be so high that they would outweigh the benefits of service provision by more than one provider. The cost involved in addressing the issue would most likely occur as part of the broader revision of the regulatory framework discussed above.
- 10.25 A further cost which may be material is the cost of regulation under Part IIIA. Where an access seeker and a service provider fail to successfully negotiate terms and conditions of access to declared services, either party may seek arbitration of the access dispute by the ACCC under Part IIIA of the TPA. This will invariably involve costs to both parties to the arbitration as well as the ACCC. In addition, the regulated outcome of the arbitration may not be perfect in the sense of replicating a competitive outcome.
- 10.26 As criteria (a) to (e) are satisfied, there is a presumption that declaration will not be contrary to the public interest due to the benefits expected to flow from a promotion of competition. Sydney Water is currently the only service provider in the Sewage Collection Market and, aside from SOPA, the only provider of recycled waste

water in the Sydney area. Declaration would remove a barrier to entry so as to facilitate new entry in both the Sewage Collection Market and the Recycled Water Market. The direct and dynamic benefits of competition in these markets are likely to be significant. The Council does not consider that the potential costs associated with declaration would outweigh the potential benefits.

Conclusion

- 10.27 The Council concludes that the applications for declaration satisfy criterion (f) as access to the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks would not be contrary to the public interest.

11 Exercise of residual discretion

11.1 The Council has a residual discretion not to recommend declaration even though all of the criteria set out in section 44G(2) are satisfied. This residual discretion includes consideration of the matters set out in sections 44F(3) and 44F(4).

Section 44F(3): Application not in good faith

11.2 Section 44F(3) states that the Council may recommend that the service not be declared if the Council thinks the application was not made in good faith. The subsection does not limit the grounds on which the Council may decide to recommend that the service not be declared.

11.3 No submission received by the Council argued that Services Sydney's application for declaration had not been made in good faith. The Council has no reason to conclude that the application had not been made in good faith and as such, it does not exercise its residual discretion under section 44(3) in respect of Services Sydney's application for declaration.

Section 44F(4): Consideration of alternative facilities

11.4 Section 44F(4) requires the Council to consider whether it would be economical for anyone to develop another facility that could provide part of the service. This issue is related to but distinct from the consideration of natural monopoly under criterion (b).

11.5 The issue in the case of Services Sydney's application is whether it would be economical for anyone to develop another facility to provide part of the transportation service and interconnection service provided by each of the North Head, Bondi and Malabar Reticulation Networks. These facilities are natural monopolies and satisfy criterion (b). As each facility is required to provide the respective interconnection and transportation services, the Council concludes that it is not economical for anyone to develop another facility that

could provide part of the transportation or interconnection services provided by the North Head, Bondi or Malabar Reticulation Networks. Accordingly, section 44F(4) is not satisfied in respect of Services Sydney's application for declaration.

12 Duration of declaration

Background

- 12.1 Section 44H(8) requires that every declaration include an expiry date. This can be a specified future date and/or can involve an event which may occur in the future. The period of declaration will vary according to the circumstances of each application.
- 12.2 In considering the appropriate duration of a declaration, the Council has regard to the importance of long term certainty for businesses. The Council also considers that declaration should apply for a sufficient period to be able to influence the pattern of competition in relevant upstream or downstream markets.
- 12.3 Against these considerations must be balanced the potential for technological development, reform initiatives (such as changes in legislation governing access to the relevant service) and future market evolution. Further, the Council considers that access regulation governing services, including the question of access itself, should be reviewed periodically. At the end of a period of access, the need for regulation can be reviewed.

Assessment

- 12.4 In its submission to the Council's issues paper, Services Sydney has sought a declaration period of 50 years. It argues that such a lengthy period is justified on the basis that the competitive business model of a third party access seeker would involve significant investment in and development of a new water management platform for the Sydney area. Further, as Services Sydney requires declaration as a precondition to proceed with its proposal, the length of the declaration is required to provide the necessary degree of business certainty.
- 12.5 In support of its argument, Services Sydney notes that Sydney Water adopted depreciation timeframes of 120-150 years for sewage mains and 100 years for the civil component of sewage pumping stations in its 2003 annual report.

- 12.6 The Council is reluctant to adopt an overly lengthy period for declaration. The water industry is the subject of considerable policy review and development at present. The need for declaration needs to be assessed against the developing market environment as policy initiatives are developed and implemented. While Part IIIA enables a party to seek revocation of a declaration, the Council considers that a shorter period of declaration would be consistent with the policy objective of not over-declaring.
- 12.7 Nonetheless, the Council recognises that significant infrastructure developments such as that proposed by Services Sydney, require a long period of certainty in relation to any access rights. Smaller projects, such as sewer mining ventures, would have much shorter development and construction lead times. A shorter declaration period to that requested by Services Sydney would accommodate such projects. There would be nothing preventing Services Sydney from seeking further declaration under Part IIIA after the expiry of an initial period. Taking into account these factors, the Council considers on balance, that a declaration period of 15 years would be appropriate.

Conclusion

- 12.8 The Council recommends a declaration period of 15 years for the transportation and interconnection services provided by each of the North Head, Bondi and Malabar Reticulation Networks.

Appendix A – Sections 44F & 44G of Part IIIA

Section 44F: Person may request recommendation

- 44F(1) [Written application to Council] The designated Minister, or any other person, may make a written application to the Council asking the Council to recommend under section 44G that a particular service be declared.
- 44F(2) [Council must act] After receiving the application, the Council:
- (a) must tell the provider of the service that the Council has received the application, unless the provider is the applicant; and
 - (b) must recommend to the designated Minister:
 - (i) that the service be declared; or
 - (ii) that the service not be declared.
- 44F(3) [Application not in good faith] If the applicant is a person other than the designated Minister, the Council may recommend that the service not be declared if the council thinks that the application was not made in good faith. This subsection does not limit the grounds on which the Council may decide to recommend that the service not be declared.
- 44F(4) [Consideration of alternative facilities] In deciding what recommendation to make, the Council must consider whether it would be economical for anyone to develop another facility that could provide part of the service. This subsection does not limit the grounds on which the Council may decide to recommend that the service be declared or not be declared.
- 44F(5) [Withdrawal of applications] The applicant may withdraw the application at any time before the Council makes a recommendation relating to it.

Section 44G: Limits on the Council recommending declaration of a service

- 44G(1) [Access undertakings] The Council cannot recommend declaration of a service that is the subject of an access undertaking in operation under section 44ZZA.
- 44G(2) [Council to be satisfied of matters] The Council cannot recommend that a service be declared unless it is satisfied of all of the following matters:
- (a) that access (or increased access) to the service would promote competition in at least one market (whether or not in Australia), other than the market for the service;

- (b) that it would be uneconomical for anyone to develop another facility to provide the service;
 - (c) that the facility is of national significance, having regard to:
 - (i) the size of the facility; or
 - (ii) the importance of the facility to constitutional trade or commerce; or
 - (iii) the importance of the facility to the national economy;
 - (d) that access to the service can be provided without undue risk to human health or safety;
 - (e) that access to the service is not already the subject of an effective access regime;
 - (f) that access (or increased access) to the service would not be contrary to the public interest.
- 44G(3) [Effective access regimes] In deciding whether an access regime established by a State or Territory that is a party to the Competition Principles Agreement is an effective access regime, the Council:
- (a) must apply the relevant principles set out in that agreement; and
 - (b) must not consider any other matters.
- 44G(4) [Council to follow Minister's decision] If there is in force a decision of the Commonwealth Minister under section 44N that a regime established by a State or Territory for access to the service is an effective access regime, the Council must follow that decision, unless the Council believes that, since the Commonwealth Minister's decision was published, there have been substantial modifications of the access regime or the relevant principles set out in the Competition Principles Agreement.

Appendix B – Competition Principles Agreement (extract)

- 6(2) The regime to be established by Commonwealth legislation is not intended to cover a service provided by means of a facility where the State or Territory Party in whose jurisdiction the facility is situated has in place an access regime which covers the facility and conforms to the principles set out in this clause unless:
- (a) the Council determines that the regime is ineffective having regard to the influence of the facility beyond the jurisdictional boundary of the State or Territory; or
 - (b) substantial difficulties arise from the facility being situated in more than one jurisdiction.
- 6(3) For a State or Territory access regime to conform to the principles set out in this clause, it should:
- (a) apply to services provided by means of significant infrastructure facilities where:
 - (i) it would not be economically feasible to duplicate the facility;
 - (ii) access to the service is necessary in order to permit effective competition in a downstream or upstream market; and
 - (iii) the safe use of the facility by the person seeking access can be ensured at an economically feasible cost and, if there is a safety requirement, appropriate regulatory arrangements exist; and
 - (b) incorporate the principles referred to in subclause (4).
- 6(4) A State or Territory access regime should incorporate the following principles:
- (a) Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access.
 - (b) Where such agreement cannot be reached, governments should establish a right for persons to negotiate access to a service provided by means of a facility.
 - (c) Any right to negotiate access should provide for an enforcement process.
 - (d) Any right to negotiate access should include a date after which the right would lapse unless reviewed and subsequently extended; however, existing contractual rights and obligations should not be automatically revoked.
 - (e) The owner of a facility that is used to provide a service should use all reasonable endeavours to accommodate the requirements of persons seeking access.
 - (f) Access to a service for persons seeking access need not be on exactly the same terms and conditions.
 - (g) Where the owner and a person seeking access cannot agree on terms and conditions for access to the service, they should be required to appoint and fund an independent body to resolve the dispute, if they have not already done so.

- (h) The decisions of the dispute resolution body should bind the parties; however, rights of appeal under existing legislative provisions should be preserved.
- (i) In deciding on the terms and conditions for access, the dispute resolution body should take into account:
 - (i) the owner's legitimate business interests and investment in the facility;
 - (ii) the costs to the owner of providing access, including any costs of extending the facility but not costs associated with losses arising from increased competition in upstream or downstream markets;
 - (iii) the economic value to the owner of any additional investment that the person seeking access or the owner has agreed to undertake;
 - (iv) the interests of all persons holding contracts for use of the facility;
 - (v) firm and binding contractual obligations of the owner or other persons (or both) already using the facility;
 - (vi) the operational and technical requirements necessary for the safe and reliable operation of the facility;
 - (vii) the economically efficient operation of the facility; and
 - (viii) the benefit to the public from having competitive markets.
- (j) The owner may be required to extend, or to permit extension of, the facility that is used to provide a service if necessary but this would be subject to:
 - (i) such extension being technically and economically feasible and consistent with the safe and reliable operation of the facility;
 - (ii) the owner's legitimate business interests in the facility being protected; and
 - (iii) the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension.
- (k) If there has been a material change in circumstances, the parties should be able to apply for a revocation or modification of the access arrangement which was made at the conclusion of the dispute resolution process.
- (l) The dispute resolution body should only impede the existing right of a person to use a facility where the dispute resolution body has considered whether there is a case for compensation of that person and, if appropriate, determined such compensation.
- (m) The owner or user of a service shall not engage in conduct for the purpose of hindering access to that service by another person.
- (n) Separate accounting arrangements should be required for the elements of a business which are covered by the access regime.
- (o) The dispute resolution body, or relevant authority where provided for under specific legislation, should have access to financial statements and other accounting information pertaining to a service.
- (p) Where more than one State or Territory regime applies to a service, those regimes should be consistent and, by means of vested jurisdiction or other co-operative legislative scheme, provide for a single process for persons to seek access to the service, a single body to resolve disputes about any

aspect of access and a single forum for enforcement of access arrangements.

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