

Reforming arrangements for regulating plumbing and drainage in New South Wales

Discussion Paper



New South Wales
Government

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*Reforming arrangements for regulating plumbing and drainage in New South Wales:
Discussion Paper*

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1. Introduction

1.1. Background to this review

This discussion paper has been released as part of a review which focuses on the institutional and technical arrangements for regulating plumbing and drainage in New South Wales.

Institutional reform is an area of concern for stakeholders in the plumbing and drainage industry. In 2006, in a report on regulation in NSW, the Independent Pricing and Regulatory Tribunal (IPART) recommended that a review of plumbing and drainage regulation in NSW be undertaken to identify an optimal model of regulation in the context of change in the water industry.

Reform of the system of technical arrangements used in NSW to ensure that plumbing work is of an appropriate quality is an area which also warrants attention, particularly in light of the move in other Australian jurisdictions to a uniform national code for plumbing (the Plumbing Code of Australia) and the recent agreement of the Council of Australian Governments to develop a National Construction Code, which may include plumbing. NSW has not adopted the Plumbing Code of Australia, which sets up a performance-based standards framework, instead using a prescriptive NSW Code of Practice for Plumbing and Drainage. Both the national and state codes draw from common technical standards developed by Standards Australia and Standards New Zealand.

This review is being jointly conducted by the Department of Water and Energy and the Better Regulation Office. The Department of Water and Energy delivers the Government's policy and reform agenda for the water and energy sectors in NSW. In relation to water, the Department provides policy, legislative, technical and management advice to the Minister for Water. In addition to this advisory role, the Department carries out a regulatory and enforcement function in water. The Better Regulation Office is responsible for meeting the Government's commitment to cut red tape and reduce regulatory burden on business. The Office drives regulatory reform that will benefit the NSW economy and is an advocate for better practice regulation making across government by providing ongoing advice and practical tools to agencies to assist in meeting the requirements of good regulatory process.

The Terms of Reference for the Review are at Appendix A.

1.2. Purpose of the discussion paper

The purpose of this discussion paper is to facilitate examination and discussion of current arrangements for regulating plumbing and drainage in NSW, the need for change and possible models for reform.

In assessing the existing arrangement and options for future institutional arrangements, the discussion paper will consider models in other jurisdictions and further examine four options put forward by a 2002 Interagency Committee on Plumbing Regulation Reform Review, and stakeholder submissions to that Committee.

Models for reform of technical plumbing and drainage requirements in NSW will consider the costs and benefits of a NSW-specific approach to standards compared to adoption of the national Plumbing Code of Australia. Additionally, costs and benefits of a prescriptive approach will be considered against a performance-based approach.

1.3. Issues to be addressed

The Government is seeking comments on the issues raised, and options presented, in this discussion paper. In particular, feedback is sought on the following issues.

Regulatory governance

- The extent to which the current institutional arrangements in NSW meet objectives (that is, minimising the risks associated with plumbing and drainage), are cost-effective and are supportive of the Government's water initiatives;
- The administrative costs of the various on-site regulators and the level and effectiveness of regulation (that is, inspection regimes) under the current arrangements;
- Estimates of unnecessary compliance costs incurred by industry and/or customers under the current arrangements;
- Any examples of unnecessary delay caused by the current arrangements (for example, in making a new connection to water services networks);
- The strengths and weaknesses of the institutional models in other Australian jurisdictions;
- The appropriateness of suggested options for future models in NSW.

Technical requirements

- The efficiency and effectiveness of the current arrangements for technical requirements for plumbing and drainage in NSW;
- The costs and benefits of NSW having its own technical requirements in comparison to adoption of a nationally consistent approach;
- The strengths and weaknesses of prescriptive technical requirements (such as the NSW Code) in comparison to performance-based provisions (such as the Plumbing Code of Australia);
- The costs and benefits of local variations to Codes or Standards;
- The role of administrative provisions, such as issue of permits to carry out of plumbing work, or other non-technical provision, in a technical standards framework.

If possible, the Government is seeking evidence of costs and benefits, either in monetary terms (for example, dollar savings or costs) or by other measurements (for example, time saved or delayed).

1.4. How to have your say

Interested persons are invited to read this discussion paper and to provide written submissions.

A submission form is provided at Appendix C and is also available online. It can be submitted by email, post or fax, as detailed the appendix. Please take careful note of the deadline for submissions; this is indicated on the submission form or can be checked via the websites of

the Department of Water and Energy www.dwe.nsw.gov.au and the Better Regulation Office www.betterregulation.nsw.gov.au.

Should you require a hard copy of this discussion paper, this can be arranged by calling the Department of Water and Energy on 02 8281 7424.

All submissions will be made publicly available. If you do not want your personal details released, please indicate this clearly in your submission.

1.5. Next steps

Once submissions have been received, feedback will be analysed and potential options assessed. A preferred option will be selected, considering the following criteria:

- Cost effectiveness: will it provide the most benefit for the cost?
- Efficiency: will there be benefits in terms of consistency, standardisation and time efficiencies?
 - Regulator benefits – will it reduce the administrative burden and increase the application of regulation?
 - Industry benefits – will it improve service to the plumbing industry and reduce regulatory and administrative burden?
- Effectiveness: will it meet the Government's policy objectives and initiatives effectively, now and in the future?
 - Water Competition - is it suitable in an era of water industry competition?
 - National reform – does it pose a barrier or limitations to the possible implementation of national initiatives?

Options will also be considered with reference to the NSW Government's better regulation principles, as set out in the *Guide to Better Regulation* (Better Regulation Office 2008).

It is anticipated that a Recommendations Report on the most appropriate model for NSW will be provided to Government for consideration in early 2009. The Government will then determine how these recommendations will be acted upon in order to achieve the objectives of this Review and will provide a response.

1.6. Structure of the discussion paper

The structure of this paper is as follows:

- Part 2 describes the existing institutional arrangements in NSW;
- Part 3 presents the need for reform of the current arrangements in NSW;
- Part 4 describes the arrangements in other Australian jurisdictions;
- Part 5 presents and assesses the potential options for a future model;
- Part 6 considers current and alternative arrangements for technical standards;
- Part 7 considers network connection processes and
- Part 8 provides a summation of the discussion paper.

2. The existing framework for plumbing and drainage regulation in NSW

2.1. Introduction

The water industry in NSW has been changing over recent years, as the provision of water focuses on increasing and diversifying supplies, reducing demand and drought security. One significant change is the increase in the number of recycled water schemes in NSW. In addition, the installation of rainwater tanks to substitute the use of drinking water supplies for non-drinking purposes has increased significantly with the introduction of a rainwater tank rebate scheme in 2002. In Sydney alone, over 45,000 rainwater tanks have been installed since 2002.

The plumbing industry and on-site regulators have had to adapt to the emergence of these new initiatives and associated legislative requirements. New installation techniques and regulatory requirements need to be understood and adopted to ensure that public health, the environment and both utility and customer assets are protected.

In addition, the Government has also recently initiated a review of local water utilities to determine the most effective governance arrangements for the long-term provision of water and wastewater services in country NSW. The Local Water Utilities Review will have a bearing on this Review, as at present there are over 100 local water utilities that are also on-site plumbing regulators.

So, with changing service provisions, reform of local water utilities and the Government encouraging increased competition in urban water markets through the introduction of the *Water Industry Competition Act 2006*, it is timely to review the appropriateness of water utilities, in particular public monopolies, retaining the responsibility for on-site plumbing regulation. This is in accordance with national competition agreements (COAG 2007) that aim to prevent publicly owned water utilities from having a competitive advantage over rivals due to its public ownership. That is, with the introduction of increased competition where traditionally a service has been provided by a public monopoly, there is a need to ensure that the roles of resource management, standard setting, regulatory enforcement and service provision are separated institutionally and barriers to competition are removed.

Some water utilities have already raised concerns that, with the establishment of a competitive market, possible conflict of interest means that it is no longer appropriate for them to provide water and wastewater services, as well as regulating on-site plumbing. Separation of the service provision function and the regulatory enforcement function would overcome any potential conflict of interest. A number of water utilities have indicated support for the implementation of new institutional arrangements.

Reform of the institutional arrangements for plumbing and drainage in NSW is not a new issue. The need for a review was recognised in 2001 when the Government established an Interagency Committee on Plumbing Regulation Reform. The Committee's subsequent paper, released in 2002, highlighted the strengths and weakness of the current arrangements and recommended a number of alternative regulatory models. The responses to this public discussion paper indicated both support for and opposition to changing the institutional arrangements. A common reason put forward in favour of reform was that

complexity and fragmentation was undermining the effective operation of the existing institutional arrangements. The overarching view was that the existence of a multitude of agencies, particularly on-site regulators, has led to:

- Inconsistent and inaccurate interpretation of plumbing regulations by the various technical regulators, leading to a failure to achieve regulatory consistency.
- Confusion arising between the relevant Australian Standards and variations in the NSW Code.
- Lack of proper levels of monitoring, auditing and enforcement linked to under-resourcing and low skill levels.
- Lack of accountability and creation of regulatory gaps.
- Poor public awareness of the plumbing regulation leading to non-compliant plumbing work.

Following evaluation of submissions, it was thought that a departmental restructure would address the concerns raised by stakeholders.

In 2006, the Independent Pricing and Regulatory Tribunal of NSW (IPART) undertook a review of regulatory burden affecting the NSW community. This review considered the need for plumbing reform in NSW, noting “*on-site plumbing regulation in NSW...takes place under a complex and fragmented framework*” and “*...regulatory burdens...have existed for years, directly impacting the plumbing industry and indirectly its large client base*” (IPART 2006). IPART recommended that these issues needed to be addressed and the 2002 options revisited.

The main instrument used to regulate technical aspects of plumbing and drainage work undertaken in New South Wales is the NSW Code of Practice for Plumbing and Drainage (NSW Code) (CUPDR 2006). The technical requirements called up by this Code are the Standards Australia and Standards New Zealand AS/NZS 3500 series of technical standards, along with a number of documented variations and additions to these Standards. Both the NSW Code and AS/NZS 3500 are prescriptive with respect to technical requirements, that is, they provide acceptable solutions which, if implemented, achieve a satisfactory standard of work.

Nationally, three jurisdictions have already adopted a national plumbing code, the Plumbing Code of Australia (NPRF 2004), as the basis for technical regulation of plumbing and drainage work. The Australian code differs from the NSW Code in that it is performance-based. This means that the Code describes the performance criteria that need to be met, and the user can choose to use a prescriptive (“deemed to comply”) solution or an alternative solution that achieves the same result. The Plumbing Code of Australia provides a similar approach to technical regulation of plumbing and drainage as the Building Code of Australia does for building, and it aims to achieve acceptable standards of plumbing installation, to provide for public health, safety and amenity, resource and environment conservation, sustainability and the protection of public and private infrastructure.

The need for consistency and standardisation of regulation within the plumbing industry has also recently been further emphasised at the national level through the Council of Australian Governments. The drive for national consistency for all aspects of the plumbing regulatory environment, from harmonising licensing to possible adoption of a national plumbing framework through a National Construction Code, is high on the current national agenda. Consideration of these issues at the national level further illustrates the need to examine the existing arrangements, not only in terms of change in the NSW industry, but also to ensure

readiness for any changes that may occur on a national scale. Any reform proposal for NSW will need to accommodate potential future changes at a national level.

In this context, a review is necessary to ensure that the plumbing and drainage regulatory framework:

- continues to achieve the Government's underlying policy objectives for plumbing regulation (namely to minimise the risks associated with plumbing and drainage activities to a level acceptable by the community) (refer Section 3.1);
- is consistent and supportive of the Government's water policy objectives and other initiatives; and
- aligns with national plumbing and drainage initiatives.

2.2. Regulatory arrangements

2.2.1. National Level

During this Review it is important to consider both existing policies and standards in place nationally and steps being taken by the Council of Australian Governments (COAG) to address inconsistencies that exist in the plumbing industry across Australia.

Standards Australia

Standards Australia develops the overarching standards for plumbing and drainage regulation in Australia, namely:

- technical standards for installations (Australian/New Zealand Standard AS/NZS 3500), and
- technical specifications for plumbing and drainage products - procedures for certification of plumbing and drainage products (Australian Standard AS 5200).

AS/NZS 3500 is a comprehensive standard covering all aspects of plumbing and drainage work. Although AS/NZS 3500 is used by all States and Territories, it is not necessarily adopted in its entirety and variations are adopted by the differing jurisdictions to suit local conditions.

AS 5200 provides uniform procedures for the certification of plumbing and drainage products that require statutory authorisation. This Standard nominates Standards and Australian Technical Specifications (ATS) for certification of plumbing and drainage products. Standards Australia has worked with regulators from the various jurisdictions to develop a uniform system where a single certification mark, known as the WaterMark, is used to certify compliance with the required specifications/standards. Unlike AS/NZS 3500, AS 5200 is adopted as is by all jurisdictions.

National Plumbing Regulators Forum

The National Plumbing Regulators Forum (NPRF) was established in 2002, after it was recognised that a national forum was needed to drive greater national consistency in standards and to develop a Plumbing Code of Australia. The NPRF has since been expanded to include New Zealand and comprises representatives from each of the States and Territories within Australia and representatives from New Zealand.

The focus of the NPRF is on the broader national policy issues, with the intention of complementing the technical standards developed by Standards Australia.

Plumbing Code of Australia

The initial focus of the NPRF was the development of the Plumbing Code of Australia. The Code, although based upon AS/NZS 3500, sets national performance based requirements for plumbing work, as opposed to technical installation requirements, to enable effective protection of public health and safety, the environment and public water utilities.

However, not all jurisdictions have adopted the national Code. For example, New South Wales has opted to maintain the NSW Code, which calls up AS/NZS 3500 and lists NSW variations from that Standard.

The lack of adoption of the Plumbing Code of Australia by all jurisdictions could be construed as preventing the adoption of a consistent approach to plumbing regulation on a national basis. The NPRF recognises that the Plumbing Code of Australia needs to have more regulatory clout, as with the Building Code of Australia, if it is to be effective. Hence, the NPRF is keen to progress an inter-governmental agreement to enable the Plumbing Code of Australia to be applied nationally, but administered by the States and Territories, much like the Building Code of Australia. The NPRF also recognises that harmonising of the plumbing and building codes on a national scale is an option that needs further consideration, especially in light of recent COAG initiatives (refer below).

In 2007, the Australian Parliament's Standing Committee on Environment and Heritage conducted a review of plumbing regulation in Australia. The Committee recommended that the NPRF take a lead role in exploring options to improve audit of work and enforcement of standards to ensure plumbing product quality. The Committee also recommended:

- Linking existing mandatory product approval schemes by establishing WaterMark certification as a prerequisite for compliance with the Water Efficiency Labelling Standards Scheme.
- COAG exploring options of a national coordinating body with responsibility for improving coordination and cohesion of regulatory arrangements for controlling plumbing product quality in Australia.

Key objectives of the Plumbing Code of Australia are to:

- create an accountable and transparent framework for product authorisation
- establish national objectives for plumbing work on a performance basis
- foster water and energy conservation
- encourage best practice
- reference effective solutions
- call up relevant Australian Standards
- be compatible with the Building Code of Australia (BCA).

National Training Package

The Construction and Property Services Industry Skills Councils develop, manage and distribute nationally recognised training packages and resource material. The Plumbing and Services Training Package contains eight qualifications across the plumbing and servicing sectors. The licensing regulators (from each State/Territory) provide input into the

development and review of the training package. This training package has been adopted as the basis for qualification requirements for licensing purposes. However, jurisdictional variations do occur.

Council of Australian Governments (COAG)

The COAG Mutual Recognition Scheme aims to promote economic integration and increased trade between jurisdictions. From February 2007, new arrangements were put in place for mutual recognition of occupational licences issued to plumbers, as well as electricians, electrical fitters, gas-fitters, carpenters and joiners, bricklayers, and builders, and so on. This arrangement will make it easier for licensed tradespeople, and authorities that issue licences, to know what licence a worker is entitled to when applying for a licence in another State or Territory.

More recently a COAG Business Regulation and Competition Working Group (BRCWG) has been established to reduce the regulatory burden on business. Building regulation is a priority work area for the BRCWG. The BRCWG has been tasked with preparing a plan for addressing areas of regulation that impede national workforce mobility or skills acquisition, including national systems for trade and professional qualifications and licensing. An implementation plan, prepared by the BRCWG, was presented at the March 2008 COAG meeting and included harmonising of trade licences, with a possible national system; and assessing the feasibility of a National Construction Code (which would incorporate plumbing requirements).

At its July 2008 meeting, COAG agreed to the development of a National Construction Code that may include building, plumbing, electrical and telecommunications standards and instructed the BRCWG to undertake further work on options and an implementation plan, to be reported back to COAG in October and December 2008, respectively. Stakeholder feedback on this discussion paper will inform the NSW Government's position on the development of any future National Construction Code.

At the same meeting, COAG also agreed that national licensing of tradespeople initially be applied to select trades, including plumbing occupations.

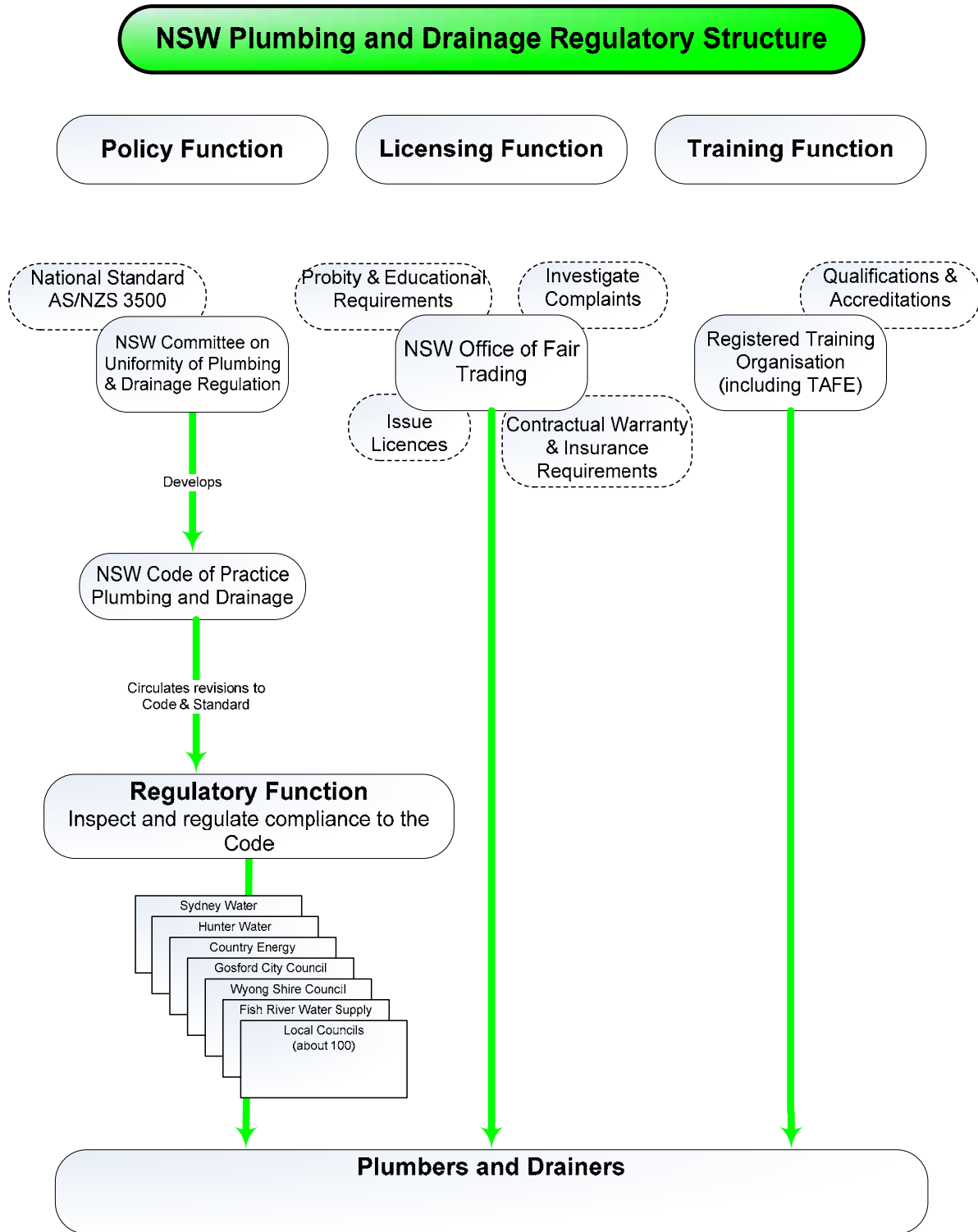
These national initiatives recognise changes in the plumbing and construction industries, as well as the need for increased mobility of contractors working across state borders.

2.2.2. Within NSW

The current institutional arrangements within NSW have been put in place to license, implement, monitor and enforce compliance of the plumbing regulation.

In a broad sense, NSW's plumbing regulatory framework can be categorised into three distinct activities: an administrative and technical requirements setting function; a licensing function; and an on-site regulation function. Currently, plumbing regulatory functions are undertaken by numerous agencies as shown in Figure 1.

Figure 1 Existing Institutional Arrangements in NSW



Technical Requirements Setting Function

At the policy level, products standards and technical requirements for plumbing activities are set out in the NSW Code. The Committee on Uniformity of Plumbing and Drainage Regulations (CUPDR) prepares the NSW Code. The Department of Water and Energy chairs the CUPDR and membership comprises:

- Country Water
- Department of Local Government
- Department of Planning
- Department of Water and Energy
- Hunter Water Corporation
- NSW Health
- NSW Office of Fair Trading
- NSW TAFE
- Sydney Water Corporation.

There are also a number of observers that are invited to attend the CUPDR: the Australian Hydraulic Services Consultants Association, the Australian Institute of Environmental Health, the Master Plumbers and Mechanical Contractors Association of NSW, the Institute of Plumbing and the Water Directorate.

The current NSW Code was gazetted on 30 June 2006 and commenced on 1 July 2006. The NSW Code generally reflects AS/NZS 3500, but also includes NSW variations and additional provisions to facilitate state policies, including BASIX (a building sustainability index to regulate water and energy efficiency of new dwellings), greywater use and stormwater recycling. The NSW Code is the main instrument regulating plumbing and drainage activities in NSW and aims to minimise risks associated with plumbing and drainage activities to a level acceptable to the community. The NSW Code provides for the following plumbing works:

- water services – drinking and non-drinking;
- rainwater tank supply systems;
- sanitary plumbing and drainage – including septic tanks;
- greywater reuse plumbing systems;
- stormwater drainage;
- heated water services; and
- recycled water systems.

The NSW Code is given legal effect by regulations made under the *Hunter Water Act 1991*, the *Sydney Water Act 1994*, the *Water Management Act 2000*, the *Local Government Act 1993* and the *Water Industry Competition Act 2006*. These Acts define the functions, powers and obligations of the Hunter Water Corporation, the Sydney Water Corporation, the various water supply authorities such as Gosford City Council, Wyong Shire Council and Country Water, and local councils, respectively (collectively the water utilities).

These water utilities are also referred to as “on-site plumbing regulators”, as they are responsible for the administration of the plumbing and drainage activities within their geographical areas of operation in accordance with the NSW Code. With the approval of the CUPDR, water utilities can vary technical requirements for the type of public works covered

by the NSW Code to suit local conditions. For example, the Sydney Water Corporation and the Hunter Water Corporation both have specific requirements in regard to water meter installations within their areas of operation.

Water utilities may also set installation requirements for plumbing works, or reiterate requirements in the NSW Code that they feel are particularly important such as safety issues. Hence water utilities also perform a quasi-policy role on plumbing and drainage activities, but only in respect to their geographical area. Whether additional requirements for different on-site regulators may result in unwarranted burdens on the plumbing industry is explored further in Section 3.2.

Licensing and Training Functions

The *Home Building Act 1989* requires plumbing work to be undertaken by the holder of a licence, qualified supervisors certificate or tradespersons certificate. The NSW Office of Fair Trading (within the Department of Commerce) is responsible for administering the licensing regime for plumbers and drainers. It also investigates complaints and may take disciplinary action against persons responsible for defective or illegal work.

The Office of Fair Trading sets entry criteria required to become a licensed contractor and/or certified tradesperson including probity checks and qualifications requirements. The qualification requirements are based on the National Training Package for qualifications and practical experience (refer to Section 2.2.1).

A Registered Training Organisation, for example TAFE New South Wales, is then responsible for providing training in the qualifications or units of competency that meet the requirements set by the Office of Fair Trading.

On-site plumbing regulators

Each water utility is responsible for the administration of plumbing regulations within their geographical area of operations. This equates to over 100 separate on-site plumbing regulators, including:

- Sydney Water Corporation;
- Hunter Water Corporation;
- Gosford City Council;
- Wyong Shire Council;
- Country Water;
- Cobar Water Board; and
- about 100 individual local councils¹.

In addition, NSW Health provides guidance in relation to health matters including rainwater tanks and recycling systems and certain plumbing activities including the installation, operation and maintenance of schemes such as hot water and warm water systems in hospitals and aged care facilities.

¹ Throughout this discussion paper, the term “water utility” refers to all water utilities and water authorities, both large and small.

3. Need for reform of the existing regulatory arrangements

There are three factors which must be considered when assessing need for reform. Namely, is the current arrangement:

- Meeting its objectives?
- The most cost effective way to achieve the Government's policy objectives for plumbing regulation?
- Supportive or consistent with the Government's water competition policy objectives and water initiatives?

3.1. Are the current regulatory arrangements meeting objectives?

The Government's primary objective in regulating plumbing and drainage activities is to "minimise the risks associated with plumbing and drainage activities to a level acceptable to the community" (Interagency Committee 2002). In so doing, plumbing and drainage regulation should:

- provide an adequate level of protection for public health and safety;
- ensure consumer protection;
- protect community-owned assets; and
- protect the environment.

In the context of this Review, the objective of the arrangements is to achieve the Government's underlying policy objectives for plumbing regulation without imposing unwarranted regulatory burdens. To be able to assess if the current arrangements are effective in this regard, it is important to have an understanding of the risks associated with plumbing and drainage activities:

Public Health and Safety

Plumbing defects and illegal connections can increase risks to public health in relation to both water supply and sewage management. A more recent area of risk is associated with incorrect connections for recycled water and improper installation of grey water reuse systems and rainwater tanks which can result in a non-drinking water supply mixing with a drinking water supply.

Other examples relate to improper installations that allow contamination to occur, such as the incorrect installation of a backflow prevention device which could allow contaminated water to flow back through a pipe, especially if there is a drop in mains pressure.

Environmental

Environmental and public health issues also arise when sewer overflows occur. Illegal connections to stormwater drains for example, allow an influx of excess water during wet weather causing the sewerage system to overflow when it reaches capacity. The same

scenario is evident when stormwater enters the sewerage system through leaks due to improperly installed sewer pipes.

Consumer Protection

Due to the nature of plumbing work (the work is usually hidden behind walls or underground) faults may not become obvious for some time after the work is completed. If a fault is detected, the cost of repair may be substantial due to difficulties in accessing the area. Requirements for licensing and training programs afford the customer a level of assurance in so far as they can engage the services of a trained plumber.

Thus, a level of consumer protection is important as defective plumbing may lead to disproportionately high future costs due to consequential damage and the need for rectification.

Asset Protection

As with consumer protection, protection of water utility assets is essential. Plumbing work connected to utility assets (that is, mains water and sewer pipes managed by water utilities) must provide adequate protection against possible interference with the operations of the water utility. For example, ensuring the installation of backflow prevention devices to prevent backflow of contaminated water to water mains, or preventing cross connections that allow stormwater to enter sewer pipes.

The need to have the appropriate institutional and technical arrangements to regulate compliance with quality and performance standards is paramount in meeting the Government's objective of minimising the risks associated with plumbing and drainage activities.

The Government is seeking stakeholder views on whether the current regulatory arrangements in NSW are effective in minimising the risks associated with plumbing and drainage.

3.2. Are the existing regulatory arrangements the most cost effective?

If plumbing regulation is necessary to serve legitimate public, social and environmental goals, those goals must be achieved with a minimum level of cost to business customers and government.

Costs associated with the regulation of plumbing and drainage activities can be separated into two areas:

- Administration – costs incurred by government in administering regulation and by industry demonstrating compliance with regulation.
- Compliance – costs incurred by businesses and customers in complying with regulation.

These two areas are explored further below.

Administration costs

As discussed in the previous section, the current arrangements involve a separate licensing body (the Office of Fair Trading), the technical and administrative requirements set by a committee chaired by the Department of Water and Energy and numerous on-site regulators, each one of which administers a separate inspection and enforcement regime. All these agencies incur administrative costs. In the case of on-site regulators, it could reasonably be assumed that establishment costs associated with an enforcement regime are replicated across the various local jurisdictions. To provide some context around the likely administrative costs incurred, examples are provided below.

Government administration costs

The Office of Fair Trading administers approximately 16,000 licences under the *Home Building Act 1989* for plumbers, drainers and gasfitters in NSW. In addition there are 1,355 qualified supervisors and 4,272 tradesperson certificate holders. Licence fees are set by the Office of Fair Trading to cover administrative costs and apply to new licence applications, licence renewals, licence replacements, and so on. The Office of Fair Trading is also responsible for investigating customer complaints and currently employs 19 investigators and 25 inspectors, as well as setting the technical/formal qualification requirements (based on the National Training Package) to enable a plumber to be licensed.

The Department of Water and Energy, as Chair of the CUPDR, is responsible for producing the NSW Code. The costs associated with producing and amending the Code are borne by the Department of Water and Energy. The various booklets (that is, permit application booklets, compliance certificate booklets, and so on) are sold on a cost-recovery basis, as plumbers and drainers are required to purchase the documentation in order to run their businesses. In the 2006/07 financial year approximately 3,000 booklets were issued. The Department of Water and Energy is also responsible for circulating amendments to the NSW Code (as agreed by CUPDR) to on-site regulators and the plumbing industry. Both the amendments and the NSW Code itself are available to download free of charge from the Department's website.

In regard to the on-site regulators, they conduct inspections in their respective areas of operation. The level of inspection activity and the resources applied by the different on-site regulators varies across the State. For example, the Sydney Water Corporation currently employs 32 full time plumbing inspectors, who inspect all work the corporation is notified of. This resulted in around 43,000 inspections in 2006/07 (some jobs required more than one inspection). Costs associated with inspections, processing permit applications, maintaining databases and issuing notices for defective works were approximately \$4.7 million, whilst income generated via fees paid to Sydney Water by plumbers and drainers totalled around \$2.8 million in 2006/07.

In the first half of 2009 Sydney Water will be changing its approach to plumbing inspection. Currently Sydney Water inspects, and then passes or fails every piece of drainage work. The new approach places greater emphasis on plumbers certifying that their work complies with relevant codes with Sydney Water auditing plumber performance. Under the audit regime, Sydney Water will inspect a sample of each plumber's work according to risk. That is, low risk activities will be audited less often and higher risk activities more often. A key risk factor will be each plumber's history of compliance or non-compliance.

The Hunter Water Corporation has four inspectors (two plumbing and two trade waste inspectors). Until recently, the Hunter Water Corporation undertook random audits based only on protection of the Corporation's assets. Like the Sydney Water Corporation, from 2008 the Hunter Water Corporation has implemented a new regime based on risk. That is, low risk activities will be audited less often, whereas the higher risk activities will be subjected to a 100 per cent inspection regime. This regime is still predominantly focused on asset protection.

There are three plumbing and drainage inspectors within Gosford City Council's water supply authority, which is structured as a separate business within the Council. The inspectors primarily undertake inspections of plumbing and drainage works associated with new developments, installation of rainwater tanks and backflow prevention devices. Approximately 400 assessments on works associated with new developments are carried out per year; an assessment, however, may involve more than one inspection depending on the quality of the work.

Despite the limited examples provided, it is evident that inspection regimes, and therefore associated costs, vary across NSW. This may lead to unwarranted burden for industry and customers, as well as gaps in regulation.

The Government would like to receive feedback on the role and effectiveness of on-site regulators and also the administrative costs incurred by on-site regulators.

Industry administration costs

Plumbing and drainage businesses also face costs associated with demonstrating compliance. Costs incurred demonstrating compliance may be particularly high for businesses that work across areas managed by different water utilities, and where different regulatory requirements are applied in each different area.

Compliance Costs

Compliance costs incurred by businesses and customers can be categorised as either necessary or unnecessary costs:

- Necessary – these are efficient costs that businesses and customers bear to achieve a desired policy outcome.
- Unnecessary – these are unnecessary costs incurred by businesses and customers arising from, for example, differences in technical requirements imposed by different on-site regulators that are unnecessary for attaining policy objectives.

Necessary costs are incurred where work requires the level of technical skill of a licensed plumber to ensure consumer and public safety, protection of assets and the integrity of the environment.

An example of unnecessary costs, provided by the Master Plumbers Association of NSW, is differing requirements regarding tempering valves on hot water services in two adjacent local jurisdictions. In this instance, a plumber undertook plumbing work in compliance with the requirements of one on-site regulator in the adjacent on-site regulator's area. The plumber was subsequently requested to remove the tempering valves solely on the basis that they were not required in that local area. The rectification costs incurred by the plumber would

constitute unnecessary costs because the fitting or non fitting of the tempering valves does not impact on customer safety. Standardisation of requirements would most likely overcome these sorts of issues.

The time taken to establish the correct technical provisions applicable in a particular geographic area may also represent an unnecessary cost to business, because of delays involved.

Unnecessary costs are an unnecessary burden on businesses and customers. This means that institutional arrangements leading to the imposition of unnecessary costs directly or indirectly may be inconsistent with an approach that minimises cost.

At this point, discussion around reform has not been based on quantitative information. In particular, it is not clear how widespread the problems are across NSW and what their impacts are on businesses and customers in terms of say, additional costs. Another example of unnecessary cost is where network connection processes cause delay.

The Government would like to receive feedback on any unnecessary costs associated with meeting the current NSW technical requirements framework, including unnecessary delays and costs associated with local variations in different geographic areas. In particular, the Government would like to receive feedback from industry/consumers quantifying any unnecessary costs incurred under the current arrangements.

3.3. Do the current arrangements support a competitive water industry?

The Government is encouraging private participants to provide alternative water supplies and recycling as one aspect of a suite of measures to secure the water supply in NSW. This initiative has recently been progressed with the establishment of a framework (the *Water Industry Competition Act 2006*), to support third parties to negotiate to use the infrastructure owned by existing water utilities. As previously mentioned, the introduction of a competitive market that will enable private participants to compete with existing water utilities for customers may give rise to a conflict of interest for those existing water utilities that have regulatory responsibilities.

Before considering the implications of a competitive market however, it is important to have an understanding of the changes that have occurred within the water industry of NSW over the last 15 or so years; whilst the plumbing and drainage regulatory framework has remained unchanged.

Traditionally, State-owned water utilities supplied water and undertook specific regulatory functions on behalf of the State. However, since the early 1990s, the water supply industry has undergone a major transformation. Sydney Water and Hunter Water, the two largest water supply authorities in New South Wales, have been corporatised. As corporatised entities they have clear commercial objectives and are required, in general, to operate at arms length from government. Although corporatised entities, both water utilities remain as the on-site plumbing regulator in their operational areas. Until recently, this did not pose undue concern for either utility. Other State owned corporations have since been

established including the State Water Corporation and Country Energy (which incorporates Country Water (formerly the Australian Inland Energy Water Infrastructure)). In addition, various other water supply authorities have been established or recognised under the *Water Management Act 2000*, including Cobar Water Board and both Gosford City Council and Wyong Shire Council.

In country NSW, local water utilities have also faced a number of changes over the last few years, including:

- requirements to operate more as business entities – encouraged by legislated incentives including dividend payments and reporting requirements;
- implementation of more appropriate pricing policies based on consumption rather than land valuation, also encouraged by a number of incentives such as linking pricing reform to special variations dividend payments and subsidies under NSW Government grants; and
- increased environmental and health protections.

The institutional and regulatory arrangements that apply to local water utilities are subject to a separate Government review, the outcome of which may see further changes to their structure and operations.

As well as the transformation of water utilities to more commercially focused businesses, there has also been a broadening of the services provided by them. That is, the provision of recycled water as an alternative to potable water for non-drinking purposes. Over the last few years there has been an increase in the number of recycled water schemes being implemented. These schemes range from irrigation of golf courses and council parks to large residential recycled water schemes, such as Rouse Hill in north west Sydney.

As previously mentioned the Government is in the process of implementing legislation to allow new water suppliers and water recyclers to gain access to existing infrastructure such as trunk mains, sewerage and reticulation networks. This is to encourage the private sector to provide alternate water sources such as recycled water. However, other regulatory and institutional arrangements act as barriers for potential participants to undertake recycling or other water activities. For example, installations of plumbing and drainage devices are an integral part of water recycling activities. It is important to ensure that the plumbing and drainage framework does not pose a barrier to water recycling or other alternate water initiatives and that the policy objectives of plumbing regulation continue to be met as competition is introduced.

So, what are the factors that will enable a competitive market, and where? In the first instance it is likely that competition will be introduced into metropolitan areas such as Sydney and Newcastle, where customer bases are large enough to cater for an open water market. It is obviously difficult to predict whether the predominant areas of competition will occur in the commercial, industrial or residential sector; the network or retail sector; or, the water or wastewater sector. However, it is likely that some of the following scenarios may eventuate (DWE 2007):

- Private sector development of new water sources such as desalination or stormwater harvesting;
- Industrial and residential on-site recycling;
- “Fit-for-purpose” recycled water supplied to specific customers;
- Large recycled water scheme supply to industrial and residential;

- Provision of retail only water or wastewater services i.e. using the network operators' assets to transport water or wastewater to or from the customer;
- Provision of water or wastewater network only services.

In light of these developments, questions have been raised about the appropriateness of commercially-oriented water utilities continuing to undertake the role of on-site plumbing regulators, as well as providing water services in a competitive market. In addition, with the broadening of water and wastewater services, consistent and standardised regulation of the plumbing industry is essential to ensure industry wide compliance and to safeguard public health, the environment and assets.

In your view, is the potential conflict of interest likely to have significant impact on regulators, users or the community? Please provide examples.

3.4. Arrangements in the electricity and gas sectors

Competition has been established in other utility areas within NSW for a number of years. A summary of the arrangements and on how competition has rolled out in these once monopolistic service provider areas is provided below.

3.4.1. Electricity Sector

In 1998 the electricity industry underwent a major reform with the creation of the National Electricity Market. The National Electricity Market opened up competition in terms of electricity generation, and wholesale and retail electricity sales.

Being a part of the National Electricity Market provides NSW consumers with access to a more competitive electricity market, with electricity organisations from around the State and beyond competing to obtain business.

The institutional arrangements created for the electricity industry in NSW are similar to that for plumbing and drainage in so far as the policy, licensing and regulatory functions are separated, but there are some key differences, namely:

- The Department of Water and Energy oversees policy and technical regulation of the electricity industry in NSW. It is also responsible for oversight of the NSW electricity network planning, demand management, quality of supply, reliability and safety within the electricity network industry. This includes setting of minimum technical standards for the network and connection to the network. The Department of Water and Energy reviews Network Management Performance Reports submitted by the utility operators and also assists WorkCover investigations in the event of an accident.
- As with plumbing and drainage, the Office of Fair Trading undertakes the tradesperson licensing function for the electricity industry. More recently they have taken on the role of the Accredited Service Provider Scheme Accrediting Agency (formerly with the Department of Water and Energy). The *Electricity Supply Act 1995* allows consumers (businesses and households) to choose which service provider they use to connect to the electricity network, make extensions to the electricity network, or upgrade their supply capacity. Service providers who undertake contestable works must also be accredited by

the network operator to work on or near the network, for reasons such as Occupational Health and Safety.

- The major distribution networks (namely Energy Australia, Integral Energy and Country Energy) conduct inspections of electrical installations including the connections to their networks to ensure compliance with conditions as agreed in their respective Connection Agreements with the connecting party. The technical aspects of the customer connection works are done to a common set of “Service and Installation Rules” applicable to all networks across the whole of NSW.

The model for regulating the electricity industry has provided a standardised approach across the State, whilst enabling the network operators to ensure the integrity of their assets is not compromised by defective electrical installations or their connections to the network. However, it should be noted that under this model, for householders the effective regulator in regard to inspection of their connections and electrical installations is still the local network operator.

Licensing is also used to specify minimum design and reliability performance levels for the regional electricity distributors (namely, Energy Australia, Integral Energy and Country Energy). The Department of Water and Energy develops the technical requirements for inclusion in these licences, which are imposed by the Minister for Energy, administered by IPART and jointly monitored by IPART and the Department.

Under the auspices of the Ministerial Council on Energy, reform of regulation applicable to electricity networks and retailers is continuing, with an early focus on customer protection and network connection and demand management issues. The Ministerial Council is now in the process of developing proposals for a nationwide harmonised approach to energy technical and safety regulation initially covering the electricity network and generation sectors. The Council has also noted that harmonised regulation is also important to enable efficient delivery of energy services, to lower the compliance burden for multi-jurisdictional operations, and to facilitate greater labour mobility and swifter emergency responses.

3.4.2. Gas Sector

In the gas sector, an open access regime came into effect in 1998 with the National Gas Pipelines Access Law. Retail competition in the gas sector was established in NSW from January 2002. As with the introduction of retail competition in the water industry, a key feature of reform in the gas sector was the introduction of an open access regime for third parties using the gas transmission and distribution networks, thus allowing new suppliers to enter the market and provide greater consumer choice.

The institutional arrangements created for the gas sector in NSW reflects that for the electricity sector, namely:

- The Department of Water and Energy oversees policy and technical regulation of the gas industry in NSW. Under the *Pipelines Act 1969*, *Pipelines Regulation 2008*, *Gas Supply Act 1996* and the *Gas Supply (Safety Management) Regulation 2002*, all gas pipeline and network operators are required to lodge a Safety and Operating Plan with the Department of Water and Energy, which also reviews audit reports provided by the gas pipeline and network operators.
- The Office of Fair Trading undertakes the licensing function for the gas sector. The *Gas Supply Act 1996* defines gasfitting work. The Office of Fair Trading also conducts

inspections/audits of gas appliances, undertakes random checks on the accuracy of gas meter readings and investigates consumer complaints relating to gas works.

- There are nine authorised gas network operators in NSW, six reticulate natural gas and three reticulate liquefied petroleum gas. The network operators inspect connections to their infrastructure only. Under the *Gas Supply (Safety Management) Regulation 2002* the Network Operator has the authority to refuse a connection if there are safety concerns, although under the National Gas Rules, a customer can challenge and the Network Operator must pay for an independent safety review of the customer's installation. It is expected that the provision under the Regulation which requires gasfitters to supply a Certificate of Compliance for a customer's gas installation will no longer apply following the statutory review of the Regulation to be completed by 1 September 2008.

Licensing in gas is similar to electricity, except that gas transmission pipelines (equivalent in scale to the electricity transmission provided by TransGrid) are licensed by the Department of Water and Energy to allow private companies to gain access to land for cross-country pipelines under the NSW *Pipelines Act 1967*.

4. Plumbing regulation in other jurisdictions

This chapter considers the institutional and technical arrangements for plumbing and drainage regulation in other Australian jurisdictions.

4.1. Institutional arrangements

The institutional arrangements for plumbing regulation vary across Australia from consolidated governance by a single entity to the various licensing and regulatory functions being spread across a number of administrators.

There has been a shift in the regulatory framework in other jurisdictions, with Victoria, Western Australia, the ACT and the Northern Territory having all established a single regulator framework. South Australia is the only State that has a dual-agency approach; whilst Tasmania, Queensland and NSW operate under multi-agency models. These models are discussed further below. Current arrangements in Australian jurisdictions are summarised below in Table 1 and more detailed information for each State and Territory is presented in Appendix B.

4.1.1. Single agency model

The single agency model amalgamates all facets of plumbing and drainage regulation, from licensing to compliance, into one statewide organisation. The agency can be stand-alone, as is the case in Victoria, or a separate section within an existing government department, as with Western Australia, the ACT and the Northern Territory.

The key strengths of the single agency model are that it:

- Enables consistency of regulatory requirements across the State/Territory;
- Enables standardisation of processes such as inspection regimes;
- Is self-funding - a single agency can offset costs of compliance with the positive income stream associated with licensing functions; and
- Provides a one-stop shop for both the plumbing industry and customers to access information, book inspections and address issues or complaints.

One perceived drawback of a single agency model is that it may be seen as too introspective and lack the wider industry perspective of an agency with a diverse focus. That said, if the single agency is located within a larger government department this perceived drawback may not arise as interactions and communications with other regulatory sections would enable information sharing and regulatory/policy synergies.

4.1.2. Dual agency arrangement

The dual agency model separates the functions of licensing and qualification from the on-site regulation. This model is in place in South Australia and appears to work well given the structure of the water industry in the state – the state has only one water utility, SA Water, which means SA Water is also the only on-site regulator.

4.1.3. Multiple agency arrangement

As with NSW, multiple agency models are in place in Tasmania and Queensland, albeit slightly different in structure.

Tasmania, like NSW, has a three tiered structure, with a licensing body, technical standard setting body, while on-site regulation is undertaken by approximately 30 local councils. The Queensland structure, on the other hand, is more a quasi-dual agency model, as the Plumbers and Drainer Board is responsible for both licensing and standard setting, while on-site regulatory functions are performed by local councils.

Although both Tasmania and Queensland have multi-agency models, they differ from the NSW model in that there is a standard approach, with no local variations. The NSW Code provides a minimum standard and allows for local variations, where circumstances dictate. This means that local water utilities can impose additional and varying conditions in their areas.

In addition, both Tasmania and Queensland attribute clear responsibility to particular agencies in relation to overseeing standards within their jurisdictions. NSW, on the other hand, has delegated responsibilities to a committee to determine technical standards for the State.

What are the strengths and weaknesses of these regulator models in the context of the NSW and national plumbing industries?

4.2. Arrangements for technical requirements

The arrangements for technical requirements for plumbing vary across Australia from prescriptive Codes or regulations limited to single jurisdictions to performance-based approaches, both state-based and national. The scope of the different instruments also varies, with some also setting out a licensing framework, compliance roles and enforcement functions.

Table 1 includes a list of the current arrangements in Australian jurisdictions and Appendix B presents more detailed information on the arrangements in place in other states and territories.

4.2.1. Prescriptive approach

As mentioned previously, the principal instrument used to regulate technical aspects of plumbing and drainage work undertaken in New South Wales is the NSW Code, and its technical provisions are prescriptive in nature. The NSW Code also details administrative requirements relating to plumbing work, many of which are also included in the laws governing the operations of the various NSW water utilities². These administrative requirements include confirmation of the persons who are entitled to carry out plumbing and drainage work and requirements on such persons to submit certain information to water utilities.

² Throughout this discussion paper, the term “water utility” refers to all water utilities and water authorities, both large and small.

Western Australia also adopts a prescriptive approach to regulation of technical requirements for plumbing work, and the same regulation also includes provisions for licensing of persons entitled to undertake plumbing work, and compliance and enforcement provisions in relation to the work.

4.2.2. Performance-based approach

The majority of Australian jurisdictions have adopted performance-based approaches for technical plumbing provisions.

Queensland's performance-based approach draws on the Plumbing Code of Australia, but has variations as follows: Queensland's performance-based approach calls up the Plumbing Code of Australia but also includes provisions for other types of works, such as installations of water meters and grey water use facilities. Both performance criteria and acceptable solutions for these additional works are defined under the Queensland system.

The ACT, the Northern Territory, South Australia and Tasmania, have adopted the national Plumbing Code of Australia as the basis of technical regulation of plumbing work and Victoria is proposing to incorporate the Code into its plumbing regulation from November 2008.

What are the strengths and weaknesses of these approaches to technical requirements in the context of the NSW and national plumbing industries?

Table 1 Plumbing and drainage regulatory structures in Australian jurisdictions

Function	Jurisdiction							
	NSW	Victoria	Tasmania	South Australia	Western Australia	Northern Territory	Queensland	ACT
Advisory board		Plumbing Industry Advisory Council			Plumbing Industry Reference Group			Plumbing Advisory Board
Technical standards setting	Committee on Uniformity of Plumbing and Drainage Regulations	Plumbing Industry Commission	Workplace Standards Tasmania	South Australia Water Corporation (SA Water)	Plumbers Licensing Board	Northern Territory Plumbers and Drainers Licensing Board within the Building Advisory Services Branch of the Department of Planning and Infrastructure	Plumbers and Drainers Board (under the Department of Infrastructure and Planning)	The ACT Planning and Land Authority
Licensing authority	Office of Fair Trading		Plumbers and Gas Fitters Licensing Board	Office of Consumer and Business Affairs				
On-site regulator	Water utilities including local councils		30 Local Councils	South Australia Water Corporation (SA Water)				
Technical requirements framework	NSW Code of Practice for Plumbing and Drainage	<i>Plumbing Regulation 1998</i> , with proposal to adopt the Plumbing Code of Australia from November 2008.	Plumbing Code of Australia	Plumbing Code of Australia	<i>WA Water Services Licensing (Plumbers Licensing and Plumbing Standards) Regulations 2000</i>	<i>NT Building Regulations</i>	Queensland Plumbing and Wastewater Code	Plumbing Code of Australia

5. Options for reforming the institutional arrangements in NSW

The need for a review of institutional arrangements for regulating plumbing and drainage was recognised in 2001 when the former Premier, the Hon Bob Carr, established an Interagency Committee on Plumbing Regulation Reform (Interagency Committee) to look into the arrangements. The Interagency Committee released a discussion paper in 2002 that outlined the strengths and weaknesses of the existing institutional arrangements and established a case for reform. Following the review, it was thought that reform at a departmental level would deal with the issues raised in the discussion paper.

There are now even stronger drivers for reform of the institutional arrangements for plumbing and drainage. These include the introduction of a competitive water market in NSW, the increasing up take of recycling and water conservation measures, the introduction in 2004 of the Plumbing Code of Australia (which has been adopted in many Australian jurisdictions) and the more recent decision by COAG to pursue a National Construction Code which may incorporate plumbing.

The four options offered by the Interagency Committee are worthy of further consideration as possible models for NSW. These four options are examined below, with particular emphasis on the impact of the changing water industry structure, ensuring competitive neutrality and the need to establish a standardised approach to ensure greater compliance across the industry in NSW and Australia.

5.1. Option 1: Maintain current arrangements with improvements

This option provides for the status quo in terms of structure. The current regime would remain in place with some changes to improve functionality. Possible improvements include consistent auditing and inspection processes, agreed data requirements and collections, regular communication with industry and consistent adoption and application of administration and technical requirements.

Feedback from 2002 review

Some stakeholders argued that the existing institutional model was working well and should be maintained. Common reasons supporting its retention were:

- The current institutional arrangements, particularly in terms of on-site regulation, allow flexibility to suit local conditions which was thought to provide adequate protection and service to the community.
- The current institutional arrangements are perceived to be well understood and familiar to the community, industry and government, and any major reform would create a period of uncertainty.
- The problems associated with the current institutional arrangements could be addressed by improved training and guidance, improving the conduct of inspections and strengthening materials and products compliance rather than reforming the institutional arrangements.

Conversely, the reasons for reform identified by stakeholders focused on duplication of function, lack of accountability, inconsistency and the opinion that regulatory gaps would remain. There was a view that the existing arrangements are not effective.

Summation

When exploring this option further it is important to consider the drivers for reassessing the validity of the current plumbing and drainage regime. When the current arrangements were put in place it was the most appropriate model for that time. However, this arrangement has remained static while the water industry structure has changed over the last 15 years or so. In so doing, the current plumbing and drainage model, even with improvements to its functionality, may no longer be the most appropriate arrangement for the emerging competitive water market in NSW, in which new services such as recycled water will be more available.

Advantages:

- Flexible system that is adaptable to local conditions.
- This model seeks to rectify process issues in the current arrangements where required, such as standardisation of inspection regimes, but maintains the current regulatory structure.

Disadvantages:

- This model does not meet the requirements of competitive neutrality, as water utilities would remain as both service provider and regulator.
- The conflict of interest would remain for utilities where a competitive market has been established.
- The fragmented nature of this model, with over 100 on-site regulators, means that it is unlikely to be a cost effective option. It should be noted that the number of on-site regulators may be reduced pending the outcome of the NSW Local Water Utilities Review.
- Obtaining and maintaining consistency of application of regulation may be difficult to manage.
- This model may not complement the move towards consistency of process and streamlining of Codes/regulations at a national level.

5.2. Option 2: Single on-site regulator with a separate licensing regulator

Under this option the licensing and regulatory functions would remain separate. The Office of Fair Trading would continue its role as the licensing authority, while the on-site regulatory function would be amalgamated under one agency. Whether that agency is a separate statutory body, or an office within an existing government department, would be a matter for further consideration.

This option proposes that the single on-site regulator would:

- set the strategic direction for plumbing and drainage in NSW and represent NSW in the development of national standards and codes;
- develop State codes and regulations as necessary; and

- be responsible for inspection activities, whether undertaken by the single on-site regulator, or contracted out to local councils, or certified private sector inspectors.

Feedback from 2002 review

This option was not supported by the majority of respondents. It was seen to remove responsibility at the local level. Local councils and water authorities considered that this would lead to a loss of control over the integrity of assets. Related to this concern was the loss of flexibility and responsiveness that is provided by a localised approach, especially in more remote rural areas.

On the other hand, the merits of having two agencies separately accountable for licensing and technical compliance, was seen as a positive, allowing for increased consistency in accountability, implementation and regulation.

Summation

The feedback from the 2002 review suggests low levels of support for this option. However the water industry has evolved considerably over the last five years. Hence the Government is keen to receive updated feedback on this option, including views on possible scenarios for inspections. Inspection options could include the single on-site regulator employing inspectors, or contracting out the role (for example, to local councils).

Advantages:

- Licensing remains with the Office of Fair Trading and standard setting and on-site regulation becomes the responsibility of one agency, thereby allowing for standardisation and consistency across the State.
- This model would meet the requirements of competitive neutrality by separating service provider and enforcement functions.
- This model would also remove the conflict of interest that some water utilities have raised as an issue with the current regime.
- It would enable standardisation of both technical requirements and enforcement regimes.
- Amalgamation of on-site regulatory functions under the one body would allow streamlining of administration processes, which may result in cost savings.
- It is unlikely that this model would pose any barriers or limitations to national consolidation of industry Codes/regulations, or harmonising of the licensing system nationally.

Disadvantages:

- The separation of licensing and on-site regulatory functions may be perceived as a weakness, as the regulatory power lies with the licensing body due to its ability to suspend or cancel a licence.
- Whereas the licensing function generates an income that covers its administrative and resourcing costs, the on-site regulatory function is not self-funding.

5.3. Option 3: Ministerial Advisory Committee plus separate licensing body plus on-site regulation by local councils

As with option 2, the Office of Fair Trading would continue its role as the licensing authority under this option. However, the technical standard setting and compliance functions would be separated with the establishment of a Ministerial Advisory Committee to oversee the technical aspects and the expansion of local councils' role in regard to the compliance function.

The Ministerial Advisory Committee would guide the operations of local councils. Support staff would be required for administrative functions and as a point of contact for development of regulations. If relevant, some of the functions of the Committee on Uniformity of Plumbing and Drainage could also be transferred to the Ministerial Advisory Committee, such as providing advice and recommendations to the Minister in regard to standards and regulations.

With regard to on-site regulation, the existing jurisdictions of Sydney Water, Hunter Water, and other water utilities constituted under the *Water Management Act 2000* could be transferred to local councils in those areas.

Feedback from 2002 review

The feature of this option that attracted support was the retention of local control and responsibility for regulation and inspection. However, the three tiered aspects of this model also attracted support from stakeholders, who viewed state-wide oversight by a Ministerial Advisory Committee and a separate licensing body as an improvement to the current system, allowing for consistency in implementation, regulation and education. Other stakeholders felt that this model increased the potential for inconsistency and allowed for greater fragmentation of lines of accountability and supervision.

Summation

Again, when considering the viability of this option it is important to do so in the context of whether this option would support the Government's water competition policy objectives and initiatives and whether it is the most cost effective model to meet the Government's policy objectives for plumbing regulation. For example, in Sydney Water Corporation's area of operation, this model would lead to replacement of a single regulator with 42 new regulators.

Advantages:

- This option would consolidate the setting of standards under one committee and, unlike the present NSW arrangements, provide more oversight and guidance to the on-site regulators.
- As with option 2, licensing would remain with the Office of Fair Trading.
- The conflict of interest for utilities performing regulatory and service provision functions, such as Sydney Water and Hunter Water, would be removed.

Disadvantages:

- Once competition is introduced into non-metropolitan areas, a conflict of interest scenario may arise for councils that have responsibility for water and wastewater services.

- The responsibility of on-site regulation would be expanded from over 100 councils currently to over 150 councils. Of course, this number may change pending the outcome of the Local Water Utilities Review.
- Rather than streamlining on-site regulation, this option creates additional regulators with smaller regulatory areas.
- Despite the creation of a Ministerial Advisory Committee to guide the operations of local councils, this option may exacerbate inconsistency.
- This model may not be cost effective due to its multi-layered approach and duplication of administrative functions, which would remain, if not be exacerbated, due to the increase in the number of on-site regulators.
- A large number of on-site regulators may lead to unduly complex framework.

5.4. Option 4: All regulatory functions managed by a single agency

Option 4 proposes a single agency model, with total integration of all facets of plumbing and drainage regulation from licensing to compliance. The single agency would be a statewide organisation. This model could mirror that of Victoria or Western Australia.

An Advisory Committee could be established to ensure stakeholder input into regulatory changes.

A single agency model may be established in one of two ways, either within an existing department, or creation of a new stand-alone agency. Without excluding other possibilities, potential options for creating a plumbing and drainage regulator within an existing agency include establishment within the Office of Fair Trading, the Department of Water and Energy, or the Department of Planning.

There are also different scenarios for inspections. However, as the potential conflict of interest posed by an ongoing inspection role is a concern for some utilities, a possible approach is that inspections would be undertaken by the single agency and could be a combination of agency inspectors, certified private sector inspectors, and local council inspectors.

Feedback from 2002 review

The option for all regulatory functions to be managed by a single agency received significantly greater support than the other three options.

This model gained support for proposing a single entity to administer and regulate the plumbing industry, thereby enabling a standardised approach and potentially delivering greater levels of compliance. Respondents also felt that a single agency would be more likely to result in a more transparent and consistent process.

On the other hand, a few respondents suggested that a single agency would be cumbersome, less flexible and less able to deal with local area issues.

Summation

This option compares favourably with the shift in plumbing and drainage regulatory models in other jurisdictions. This does not necessarily mean that it is the most appropriate model for

NSW. In exploring this model further the following key questions need to be asked: does it support a competitive water market, is it cost effective and will it meet the Government's objectives for plumbing and drainage regulation?

Advantages:

- The transferral of the regulatory function from service providers to a single entity would separate regulatory enforcement from service provision and remove the potential for conflict of interest.
- Amalgamation of functions under one body would allow consolidation of funding and financial income, streamlining of administration processes and enforcement regimes, which may result in cost savings.
- There is also the potential for a single agency model to ensure alignment of plumbing and drainage policies with other Government policies such as water conservation and product standards.
- This model would facilitate standardisation of both technical requirements and enforcement regimes.
- There is the potential for synergies with the investigation of licence breaches and on-site regulation problems, increasing the potential for more stringent enforcement and compliance.
- A single agency would allow a one-stop shop for both industry and customers to access information, book inspections and address issues or complaints.
- It is unlikely that this model would pose any barriers or limitations to national consolidation of industry Codes/regulations, or harmonising of the licensing system nationally, including the proposed National Construction Code under consideration by COAG.

Disadvantages:

- A centralised body may lack the flexibility of more localised regulatory agencies and be disassociated from local issues.

The Government would like to receive the views of regulators, industry and consumers on the costs and benefits of a single agency. The Government would also like feedback on whether such an agency should be newly created or established within an existing agency. A third area of feedback is potential inspection scenarios, especially as a major concern raised in the 2002 review was perceived loss of control of on-site regulation by some water utilities.

The Government would like to receive views on the appropriateness of the various options in terms of cost effectiveness, efficiency and policy effectiveness. Feedback is also sought on the implications of the models for industry, consumers, government and regulators.

5.5. Implementation of a new model

It is evident that some level of reform of the plumbing and drainage institutional arrangements are required to cater for the evolving water industry arising from the introduction of a competitive water industry and increasing recycling initiatives within NSW.

However, there are two important considerations that need to be taken into account for the implementation of the preferred model. These are:

- the introduction of competition; and
- the outcomes of the NSW Local Water Utilities Review.

In terms of the former, a staged approach is being adopted, with competition introduced in metropolitan areas first and in non-metropolitan areas over a five year timeframe. A staged implementation approach is an option for any models produced by this Review, as it is likely that some water utilities will compete in a competitive market sooner than others, due to the size of their customer base or opportunities presented in new growth areas.

The outcome of the NSW Local Water Utilities Review, which is presently underway, may also have a direct impact on this review of plumbing arrangements, as the majority of on-site regulators are local water utilities. It would therefore seem sensible to align these implementation processes to minimise disruption and streamline any legislative processes that may arise as a consequence of both reviews.

The Government would be interested in stakeholder views on the most appropriate approach to implementation of the reformed institutional arrangements.

5.6. Assessment of options

Further to analysing the submissions received on the four options presented above, the options will be assessed using the following criteria, fully described in Chapter 1.5, namely: cost effectiveness, efficiency, effectiveness and the NSW Government's better regulation principles.

Development and recommendation of a preferred model will be undertaken based on views expressed in submissions and an analysis of how options address each of the criteria.

The Government would also welcome any alternative proposals or discussion of other options for reforming the institutional arrangements for plumbing in NSW.

6. Options for reforming technical arrangements in NSW

There has been considerable reform of technical arrangements for plumbing and drainage across Australia including, in many jurisdictions, the adoption of the performance based Plumbing Code of Australia. Like the prescriptive NSW Code, the Plumbing Code of Australia adopts AS/NZS 3500. In addition, the decision of the Council of Australian Governments in July 2008 to develop a National Construction Code that may cover building, plumbing, electrical and telecommunications standards reflects a trend towards increased harmonisation of requirements across jurisdictions. Stakeholder feedback on this discussion paper will inform the NSW Government's position on the development of any future National Construction Code

A number of options examined below consider the costs and benefits of a prescriptive standard against a performance-based standard, and a framework limited to NSW against harmonisation with a national model. Feedback is also sought on any specific problems that arise under the current framework.

6.1. Option 1: Maintain current arrangements

This option maintains the current approach to applying technical requirements – a state wide, prescriptive system that applies the relevant Australian standards, allowing for documented local variations in each water utility jurisdiction.

A prescriptive Code provides clear guidance on acceptable methods to complete work and may align closely with the relevant standards. However, it can also be inflexible and create unnecessarily complex processes for government, industry and consumers when applying requirements on site, attempting to amend these requirements or responding to developments in technology or the environment.

Applying requirements on site: NSW's systems of local variations can lead to difficulties on site. For example, plumbers can be required to consider different requirements when working on adjacent properties that are in different water utility jurisdictions (see discussion at 3.2).

Amending requirements/Responding to developments: It can be difficult for a prescriptive set of requirements to respond quickly and effectively to changes in the way water is used or improvements in technology. For example, the most recent major revision of the NSW Code, in 2006, updated the Code to adapt to increased use of water conservation devices such as rainwater tanks, greywater use and recycling. This update required extensive consideration by CUPDR, which must consider and approve changes to the Code. Ongoing minor amendments to the Code must also be approved by CUPDR and issued via Plumbing and Drainage Circulars, which are published on the Department of Water and Energy's website and in the NSW Government Gazette. This formal process is necessary to ensure the integrity of the Code, but can lead to a time lag between what is required of the Code and what is delivered by the Code. The processes of amending the Australian Standards that underpin the Code also take some time.

Advantages:

- A prescriptive approach to technical requirements for plumbing and drainage installation would provide certainty for consumers, industry and regulators.

Disadvantage:

- Local variations can lead to unnecessary regulatory and cost burden.
- Prescriptive approaches may be inflexible and difficult or time consuming to amend, resulting in inappropriate or inefficient provisions remaining in the Code.
- This option would not align with a performance-based approach under a future National Construction Code.

Your views on the current operation of the NSW administrative framework for plumbing and drainage are sought.

6.2. Option 2: Maintain current arrangement without local variations

The current framework responds to the difficulties associated with prescriptive requirements applying across a wide range of water jurisdictions by using a system of local variations. For example, under the NSW Code, the prescriptions for the space that must be allowed around a property's water meter vary from water utility to water utility. This results in the potential for over 100 different local technical requirements, rather than a uniform state wide approach. This can create complexity and confusion.

A possible response is to remove the system of local variations and require all plumbing to conform to the letter of the relevant Australian Standards.

Advantages

- State wide standardisation would have associated cost savings and efficiencies.
- Uniform requirements would maximise the benefits of the prescriptive approach.

Disadvantages

- A uniform standard may emphasise the inflexible nature of a prescriptive approach.
- A one-size-fits-all approach may not adequately reflect the unique circumstances of all locations and infrastructure across NSW.
- Streamlining of the NSW Code may rely on amendments at a national level to the relevant Australian standards.

The Government seeks your feedback on any costs and benefits of local variations.

6.3. Option 3: Adopt NSW specific performance-based approach

The majority of Australian jurisdictions have adopted performance-based approaches to technical regulation of plumbing and drainage. NSW has adopted performance-based technical standards for building under the Building Code of Australia, and in many aspects of

gas and electricity installations. The CUPDR has signalled in-principle support for a performance-based approach in the text of the current NSW Code.

The adoption of a state-based performance framework into the current NSW Code would allow NSW to benefit from the flexibility of a performance-based approach, while also putting in place a simple process for codifying existing local variations as possible solutions. However, it would also mean that NSW remained an outlier compared to the majority of Australian jurisdictions. It may also complicate any transition to a future National Construction Code.

Advantages:

- A NSW-specific approach would facilitate easy adoption of existing local variations as solutions.
- A performance-based approach may foster innovation and flexibility.

Disadvantages:

- Tradespersons and plumbing regulators may require additional training to become competent in the application of a performance-based technical approach.
- The NSW framework may not align with the existing national plumbing framework or possible future adoption of a National Construction Code.

The Government seeks your views on the likely costs and benefits of NSW-specific approach compared to adopting the national approach.

6.4. Option 4: Adopt Plumbing Code of Australia performance-based approach

The Plumbing Code of Australia sets out performance-based technical provisions for the design, construction, installation, replacement, repair, alteration and maintenance of plumbing and drainage installations. It also sets out requirements for use of materials and products and defines processes for the certification and authorisation of materials and products.

The Plumbing Code of Australia has both a “deemed to satisfy” section and an “alternative solutions” section. Both require certain performance criteria to be met. The “deemed to satisfy” section is prescriptive and calls up AS/NZS 3500; whereas the “alternative solutions” section allows for flexibility in approach, but requires that performance criteria are met. If a plumber decides to provide an alternative solution, documentary evidence needs to be provided to demonstrate that the performance requirement has been met. The certifier assesses the design for compliance with the performance requirement using the evidence provided by the plumber. The certifier can request peer review of an alternative approach.

The Plumbing Code of Australia is subject to periodic revision. For example, the National Plumbing Regulators Forum is currently undertaking a major review of the Code to incorporate provisions for gas and non-agricultural irrigation as well as references to technical standards such as greywater diversion devices. This will build on the framework of performance requirements outlined in parts of the Code which deal with non-drinking water services and on-site wastewater management systems. This review is expected to be

completed by mid-late 2009, subject to any COAG decisions on a national plumbing framework and National Construction Code.

A major benefit of a performance-based approach is its ability to accommodate greater degrees of innovation than prescriptive standards. For example, use of alternative sources of water, including recycled water, is facilitated where technical requirements allow a flexible approach.

Unlike the NSW Plumbing Code, the Plumbing Code of Australia does not include administrative requirements (such as stating who is allowed to carry out plumbing work and defining what permits are needed prior to conducting work); rather these are defined in legislation or other instruments of the jurisdictions which adopt the national code. It is important to consider how administrative requirements would be applied if NSW adopted the Plumbing Code of Australia. Some of these requirements reflect existing sections of other NSW laws, but are compiled in the NSW Code to facilitate access and ease of use. Possible options include compiling the requirements in separate Regulations (which would require regulatory intervention) or the NSW Government publishing a regular guide to the laws (which would be an administrative task from within a Department). Note that the development of a national trade licensing system, which was agreed by COAG at its July 2008 meeting, may result in some aspects of the NSW Code relating to licensees being revised to reflect a national approach.

Advantages:

- Close alignment with the national direction for plumbing and drainage regulation under both the Plumbing Code of Australia and possible National Construction Code.
- Adoption of a performance-based approach to technical requirements would facilitate innovation and flexibility. This would mean that the benefits of the existing system of local variations (jurisdiction-appropriate approaches to work) would be retained, without the related complexities (of competing requirements across water jurisdictions)

Disadvantages:

- Tradespersons and plumbing regulators may require additional training to become competent in the application of a performance-based approach.
- The ability to change the requirements would be limited by the process for amending the Plumbing Code of Australia at the national level.

The Government seeks your input on the practicality and costs of implementing a national technical standards framework in NSW.

6.5. Assessment of options

As with institutional reform options, further to analysing the submissions received on the options presented above, the options will be assessed using the following criteria: cost effectiveness, efficiency, effectiveness and the NSW Government's better regulation principles.

Development and recommendation of a preferred model will be undertaken based on views expressed in submissions and an analysis of how options address each of the criteria.

The Government would also welcome any alternative proposals or discussion of other options for applying technical standards to plumbing in NSW.

7. Making new connections to water utilities' networks

7.1. Background

This discussion paper primarily describes the regulation of water services *within* homes, commercial and industrial premises and other built developments. Such plumbing and drainage provisions apply within both existing and new developments. For example, in the case of a suburban house, the provisions apply to all the plumbing and drainage on the property, including its water meter, sinks, showers, toilets, plumbed-in rainwater tank, and the pipes which carry water, wastewater and stormwater between the house and the property boundary.

Another aspect of the provision of water services for most developments is making water and sewerage services available to a development and the subsequent connection to those services. For example, a development may be connected to a water authority's reticulated drinking water supply and its sewerage system. In the case of a new development, new connections to a water authority's network will be required, and the process involves various regulations and policies.

7.2. What processes apply now?

Servicing of land

The servicing of land process involves water utilities informing developers of any physical works that may be required or charges applicable to make water and/or sewerage services available to a development. There are regulations in place, which govern some aspects of the relationship between developers and water utilities when servicing land, while other aspects are subject to the internal policies of the individual utility.

As an illustrative example, the servicing of land process for the Sydney Water Corporation network is as follows.

Sydney Water is governed by the *Sydney Water Act 1994*; the *Sydney Water Regulation 2006*; the Water Supply Code of Australia (Sydney Water Edition) and/or the Sewerage Code of Australia (Sydney Water Edition); and the *Water Industry Competition Act 2006*.

In terms of servicing the land, there is a statutory requirement that Sydney Water provide a Notice of Requirements setting out any works that may be required and any developer charges that may be applicable to the proposed development within 60 days of an application being made. Similar provisions apply in Hunter Water Corporation's area of operations.

Sydney Water policies provide for shorter target time frames for the issue of Notices of Requirements. Additionally, Sydney Water provides the opportunity for developers who have completed many of their requirements to negotiate early certification by lodging a financial guarantee as security that the work will meet the relevant requirements.

Connecting new homes, commercial and industrial premises

The connection of new homes, commercial and industrial premises can involve a number of possible actions from water utilities including: processing applications and fees for connections, and, inspecting the connection and related plumbing work for compliance to standards. Timeframes for new connections are not regulated. (Additionally, timeframes are subject to developers designing and delivering works.)

7.3. Effects on development projects

The Government is concerned to ensure that servicing of land and connection of new development projects are proceeding with a minimum of red tape, which can cause delays and additional expense. Accordingly, feedback is sought on any undue difficulties associated with making new water network connections.

Have you experienced any unnecessary delays caused by the current arrangements for making new connections to any water utility's water services network? If so, please provide details of the problems you have faced plus any solutions that you propose.

8. Conclusion

This discussion paper puts into context the need for reform of arrangements for plumbing and drainage in New South Wales, in light of ongoing changes in the water industry. In doing so, it promotes renewed discussion of potential models for regulation.

The paper has highlighted the key drivers for reform on national and State levels, described the current arrangements in NSW and other Australian jurisdictions in order to assist assessments of the effectiveness of the current framework.

A number of potential options for the future arrangements for both the regulatory framework and technical standards of plumbing and drainage in NSW have been presented. In presenting options on regulatory change, feedback from the 2002 review has been summarised to provide some context on the views of both industry and regulators at that time. However, in assessing the options presented an important consideration is that, six years on, the water industry has changed significantly with the introduction of increased competition, greater up take of recycling and increased harmonisation of frameworks nationally.

To assist the Government in recommending a preferred model, it is important that you have your say and written submissions are encouraged (refer to Section 1.4 How to have your Say and Appendix C).

It is anticipated that a Recommendations Report on the most appropriate institutional model for NSW will be provided to Government for consideration in early 2009. The Government will then determine how these recommendations will be acted upon in order to achieve the objectives of this Review and will provide a response.

9. References

AS/NZS 3500, Australian/New Zealand Standard: Plumbing and drainage, comprising: 3500.0 Part 0: Glossary of terms; 3500.1 Part 1: Water services; 3500.2 Part 2: Sanitary plumbing and drainage; 3500.3 Part 3: Stormwater drainage; 3500.4 Part 4: Heated water systems & 3500.5 Part 5: Domestic installations., Standards Australia & Standards New Zealand.

AS 5200, Australian Standard: Technical specification for plumbing and drainage products., Standards Australia.

Better Regulation Office (2008), The Guide to Better Regulation., Department of Premier and Cabinet, NSW, see <http://www.betterregulation.nsw.gov.au/publications>

COAG (2007), Competition Principles Agreement – 11 April 1995 – as amended to 13 April 2007., Council of Australian Governments, see <http://www.ncc.gov.au/publication.asp?publicationID=223&activityID=39>.

COAG (3 July 2008), Agreements of the Council of Australian Governments relating to “A Seamless National Economy” - see COAG Communiqué and related paper from the Business Regulation and Competition Working Group, available online from http://www.coag.gov.au/coag_meeting_outcomes/2008-07-03/index.cfm.

CUPDR (2006), NSW Code of Practice: Plumbing and Drainage, 3rd Edition. Committee on Uniformity of Plumbing and Drainage Regulations in NSW, c/- Department of Water and Energy, NSW, see <http://www.dwe.nsw.gov.au/water/plumbing.shtml>.

DCEP (2007), Annual Report 2006-07., Department of Consumer and Employment Protection, Western Australia.

DIP (2007) Queensland Plumbing and Wastewater Code., Department of Infrastructure and Planning, Queensland.

DOJ (2006), Tasmanian Plumbing Code., Building Standards and Regulation Section, Department of Justice, Tasmania.

DWE (2007), Water Industry Competition Act 2006: Regulations Consultation Paper., Department of Water and Energy, NSW.

Interagency Committee (2002), Future options for plumbing and drainage in NSW – A discussion paper., NSW Interagency Committee on Plumbing Regulation Reform, The Cabinet Office, NSW.

IPART (2006), Investigation into the burden of regulation in NSW and improving regulatory efficiency.- Final report., Independent Pricing and Regulatory Tribunal of NSW.

NPRF (2004), Plumbing Code of Australia., National Plumbing Regulators Forum.

Standing Committee on Environment and Heritage (2007 September), Managing the flow – Inquiry into the regulation of plumbing product quality in Australia., House of Representatives. The Parliament of the Commonwealth of Australia.

Legislation³	Jurisdiction
<i>Construction Occupations (Licensing) Act 2004</i>	ACT
<i>Utilities Act 2000</i>	ACT
<i>Water and Sewerage Act 2000</i>	ACT
<i>Water and Sewerage Regulation 2001</i>	ACT
<i>Electricity Supply Act 1995</i>	NSW
<i>Gas Supply (Safety Management) Regulation 2002</i>	NSW
<i>Gas Supply Act 1996</i>	NSW
<i>Home Building Act 1989</i>	NSW
<i>Hunter Water Act 1991</i>	NSW
<i>Local Government Act 1993</i>	NSW
<i>Pipelines Act 1969</i>	NSW
<i>Pipelines Regulation 2008</i>	NSW
<i>Sydney Water Act 1994</i>	NSW
<i>Water Industry Competition Act 2006</i>	NSW
<i>Water Management Act 2000</i>	NSW
<i>Building Regulations</i>	NT
<i>Plumbers and Drainers Licensing Act 1983</i>	NT
<i>Plumbing and Drainage Act 2002</i>	Qld
<i>Plumbing and Drainage Regulation 2003</i>	Qld
<i>Standard Plumbing and Drainage Regulation 2003</i>	Qld
<i>Plumbers, Gas Fitters and Electricians Act 1995</i>	SA
<i>Sewerage Regulation 1996</i>	SA
<i>Building Act 2000</i>	Tas
<i>Occupational Licensing Act 2005</i>	Tas
<i>Plumbers and Gas-fitters Registration Act 1951</i>	Tas
<i>Building Act 1993</i>	Vic
<i>Plumbing Regulations 1998</i>	Vic
<i>Water Services Licensing (Plumbers Licensing and Plumbing Standards) Regulations 2000</i>	WA
<i>Water Services Licensing Act 1995</i>	WA

Other relevant information sources:

ACT Planning and Land Authority:
www.actpla.act.gov.au/topics/hiring_licensing/licence_registration/plumbers_drainers

³ NSW acts and regulations are available online from the NSW Parliamentary Counsel's Office website www.legislation.nsw.gov.au. A useful source for legislation of all Australian jurisdictions is the Australasian Legal Information Institute website <http://www.austlii.edu.au/>

Office of Consumer and Business Affairs, South Australia:

www.ocba.sa.gov.au/licensing/

Office of Fair Trading, NSW:

www.fairtrading.nsw.gov.au/

Plumbers and Drainers Board Queensland:

<http://www.dip.qld.gov.au/our-services/plumbers-and-drainers-board.html>

Plumbers and Drainers Licensing Board, Northern Territory:

www.nt.gov.au/lands/building/boards/plumbers/

Plumbing Industry Commission, Victoria:

www.pic.vic.gov.au/

Plumbers Licensing Board, Western Australia:

www.plumbers.wa.gov.au/

South Australia Water Corporation:

www.sawater.com.au/sawater

Work Place Standards Tasmania:

www.wst.tas.gov.au/industries/plumbing

Appendix A: Terms of Reference

Purpose

The purpose of the Review is to review the arrangements for regulating plumbing and drainage in NSW, in consultation with stakeholders, to identify the optimal models for regulation and technical standards in the context of a changing water industry structure. The Review is also concerned with minimising the cost of regulation to industry, including cost or delay imposed by the current inspection regime and processes around connecting new developments to water services networks.

Aim

The aim of the Review is to assess the appropriateness of the current structure for plumbing and drainage in NSW, in the context of the Government's policy objectives and the changing water industry structure.

In so doing, the Review will suggest four plumbing regulatory models to assist stakeholder response, identified by the NSW Interagency Committee on Plumbing Regulation Reform. The Review will also consider a number of possible approaches to the application of technical requirements in NSW. The Review will make recommendations to the Minister for Water and the Minister for Regulatory Reform on the most appropriate models to meet the requirements of the plumbing industry, community and the Government.

The review may also make recommendations to improve the efficiency of water network connection processes, depending on stakeholder feedback.

Issues to be considered

Some of the issues to be considered in the context of this Review include:

- Are the current arrangements in NSW meeting their objectives (that is, minimising the risks associated with plumbing and drainage)?
- Are the current arrangements in NSW cost-effective?
- Are the current arrangements in NSW supportive of the Government's water initiatives?

Task

In conducting the Review and developing recommendations, the Government will:

- Build on work undertaken by the NSW Interagency Committee on Plumbing Regulation Reform in 2002;
- Examine the suitability of the current regulatory structure for plumbing;
- Examine other regulatory plumbing and drainage models in other Australian jurisdictions;
- Examine the suitability of the current technical requirements framework for plumbing;
- Examine the approach of other jurisdictions to technical requirements;
- Undertake consultation with stakeholders on alternative approaches; and
- Prepare a report for consideration by the Minister for Water and the Minister for Regulatory Reform.

It is anticipated that a Recommendations Report will be provided to Government for consideration in early 2009.

Appendix B: Arrangements in other jurisdictions

Single Agency Model

Victoria

The Plumbing Industry Commission (PIC) is a Victorian Government statutory authority, established in 1996 under Part 12A of the *Building Act 1993*.

The PIC is structured to reflect the key functions of plumbing regulation, namely:

- Regulatory development;
- Practitioner registration and development;
- Compliance and monitoring; and
- Investigations.

Part 12A of the *Building Act 1993* sets out the legal framework for the registration and licensing of plumbing practitioners and regulation of plumbing work and other plumbing matters. The *Plumbing Regulations 1998* set out the requirements that must be complied with. As reflected in the draft regulation and Regulatory Impact Statement released for public comment in mid-July 2008, Victoria is proposing to adopt the Plumbing Code of Australia in its plumbing regulations to apply from November 2008.

The Victorian system is heavily reliant on licensed practitioners self-certifying that their plumbing work complies with all relevant regulations, standards and codes. As per a Ministerial Order (Licensed Plumbers General Insurance Order) 2002, all licensed plumbers⁴ must have sufficient insurance to cover (guarantee) any plumbing work that requires a compliance certificate for a period of six years.

Although PIC undertakes the inspections, the Victorian water utilities still have a role to play in terms of connections. A plumber has to submit an application to the relevant water utility for any connections to their assets and/or modifications that may impact on the assets of the water utility in question. However, the water utilities do not undertake inspections themselves, but rely on the governance of the PIC.

As with all jurisdictions, the PIC is involved with development and review of the national training package (refer Section 2.2.1). However, in Victoria before plumbers can be registered or licensed they must also satisfy the Qualifications and Experience Review Committee.

The PIC is supported by an independent Plumbing Industry Advisory Council (PIAC) that provides advice to both the PIC and the Minister for Planning. Issues that the PIAC has provided advice on include:

- Research into water and energy savings through the plumbing and water protection systems of buildings.
- Input into the PIC's business and corporate planning process.
- Responding to Victorian Government inquiries relating to the industry.

⁴ The licensed plumber must be insured, not a business name.

The PIC has recently aligned with the Victorian Building Commission in so far as the two Commissions operate separately, but have a joint Board and the same Commissioner. In addition, to streamline the administrative and human resource functions, these services have been brought together under a separate area and provide a support function to both Commissions.

Western Australia

The Plumbers Licensing Board (PLB) is a Western Australian Government authority, within the Department of Consumer and Employment Protection. The PLB was established in 2000 under Part 5A of the *Water Services Licensing Act 1995*. Initially, the PLB was responsible for licensing of plumbers and drainers only. However, in 2004 the PLB took over responsibility for on-site regulation. The *Water Services Licensing Act 1995* and the *Water Services Licensing (Plumbers Licensing and Plumbing Standards) Regulations 2000* set the framework for plumbing regulation in Western Australia. The Plumbing Code of Australia has not been adopted by the PLB; the Regulations apply AS/NZS 3500:2003 as a prescriptive standard, with modifications as set out in the Regulations.

When the PLB became responsible for all plumbing and drainage functions from standard setting to regulation, the regulatory framework shifted to self-certification. In so doing greater accountability was placed on the industry (plumbers), making them responsible for all plumbing work undertaken by them for a period of six years.

Western Australia only has one water utility, the Water Corporation, that provides water and wastewater services for the entire State. The Water Corporation undertakes regular testing of backflow prevention devices and is also responsible for registering and monitoring industrial waste installations. Much like Victoria, the Water Corporation also requires connection applications and backflow forms to be submitted and approved prior to any connection to their assets.

In addition to involvement in the development and review of the national training package, the PLB is also actively involved in the training program for plumbers through development of training books which are then utilised by registered training organisations. They have also established a fund to assist registered training organisations to train prospective plumbers and further enhance the skills of existing plumbers.

The PLB derives its revenue from licensing, compliance and inspection fees. At the end of 2006-07 more than 4,200 plumbers were licensed with the Board (DCEP 2007).

The PLB is advised by a Plumbing Industry Reference Group (PIRG), which has been established to provide advice on a range of plumbing matters from regulation and licensing to emerging issues. The PIRG comprises representatives from the industry.

The Western Australian Government is currently considering a proposal to consolidate the regulation of construction activities, including building, plumbing and painting under one administration.

Australian Capital Territory

The ACT Planning and Land Authority has responsibility for licensing and regulating plumbers in the Australian Capital Territory. The *Construction Occupations (Licensing) Act 2004* sets the framework for licensing plumbers. The operational aspects are prescribed in

the *Water and Sewerage Act 2000* and the *Water and Sewerage Regulation 2001* including enforcement and the role of inspectors. The *Utilities Act 2000* prescribes the technical aspects for water supply and sewerage networks. The ACT has adopted the Plumbing Code of Australia and only issues Plumbing Notes for any “grey” areas.

In terms of the inspection regime, the ACT Planning and Land Authority inspect all notified work. They also undertake audits of inspections and record keeping, and based on performance will audit poor performers more often and good performers less regularly.

The ACT also has a Plumbing Advisory Board, which meets a number of times a year to review matters such as qualifications, licensing and regulations.

Northern Territory

The Building Advisory Services Branch of the Department of Planning and Infrastructure oversees plumbing and drainage regulation in the Northern Territory. The Branch manages the licensing and regulation aspects of plumbing separately. The Plumbers and Drainers Licensing Board is a statutory authority within the Building Advisory Services Branch of the Department of Planning and Infrastructure. The Board was established under section 5 of the *Plumbers and Drainers Licensing Act 1983*. The Board is responsible for issuing licenses and registration cards and investigating customer complaints in built up areas where there are water and sewerage services.

The *Building Regulations* adopt the AS/NZS 3500 series of technical standards, with some allowance for variations between Darwin and other parts of the NT.

The Building Advisory Services Branch engages registered private building certifiers (which includes plumbing specialists) to assess applications, issue permits, undertake site inspections and issue permits on satisfactory completion of works.

As with Victoria and WA, although the water utility has various requirements in terms of connections to their infrastructure, the inspection function, however, is undertaken by the Building Advisory Services Branch.

Dual Agency Model

South Australia

In South Australia, the Office of Consumer and Business Affairs (OCBA) administers the South Australian licensing regime for plumbing contractors and workers under the *Plumbers, Gas Fitters and Electricians Act 1995*. The OCBA is also responsible for investigating breaches of the licensing Act and sets the qualification criteria for persons seeking to be licensed/registered.

In terms of qualifications and training, the OCBA intend to rely on the qualifications within the National Plumbing and Services Training Package as the qualification and experience requirements for plumbing and gas fitting licences and registrations in future.

The South Australia Water Corporation (SA Water) is the on-site regulator for South Australia. The *Sewerage Regulation 1996* prescribes the requirements to connect to the water utility’s network.

Like the ACT, SA Water has adopted the Plumbing Code of Australia. SA Water currently inspects 70 per cent of commercial/industrial plumbing and 30 per cent of residential plumbing work.

Multiple Agency Model

Tasmania

In Tasmania, the licensing/registration function is currently the responsibility of the Plumbers and Gas Fitters Registration Board. Workplace Standards Tasmania, in the Department of Justice, is responsible for setting the plumbing standards; while the responsibility for on-site plumbing falls with the 30 local councils. There is also a Building Regulations Advisory Committee (BRAC) that can advise the Minister on amendments to the Plumbing Regulations or the Tasmanian Plumbing Code of Practice (which adopts the Plumbing Code of Australia with variations).

At present the licensing function is enabled under the *Plumbers and Gas-fitters Registration Act 1951*, whilst the operational aspects are prescribed in the *Building Act 2000*. However, the regulatory framework in Tasmania is on the verge of change with the *Occupational Licensing Act 2005* anticipated to commence in 2008. This Act will repeal the *Plumbers and Gas-fitters Registration Act 1951* and amend the *Building Act 2000* to reflect any associated changes. An Administrator would assume the responsibility for licensing and an Occupational Committee Advisory Board would be established to advise the Administrator.

Queensland

In Queensland, the Plumbers and Drainers Board (under the Department of Infrastructure and Planning) is responsible for licensing plumbers, hearing complaints, investigating alleged breaches by plumbers performing work that does not meet the relevant technical standards or are in breach of their licences, and disciplining licensees. On-site regulation is the responsibility of local councils, who inspect all plumbing work they are notified of within their relevant areas.

The regulatory framework is prescribed in the *Plumbing and Drainage Act 2002*, the *Standard Plumbing and Drainage Regulation 2003* and the *Plumbing and Drainage Regulation 2003*. The *Standard Regulation* adopts the Queensland Plumbing and Wastewater Code, which is published by the Department of Infrastructure and Planning. This Code was adopted in 2006, replacing the previous prescriptive standards approach with a performance-based system. The performance-based approach aimed to ensure the Code was clear and concise and allow for innovation in materials and methods. The Code was revised in 2007 (commencing 1 January 2008) for ease of use.

Feedback on options presented in the Discussion Paper

Please tick the box for your preferred option and comment as appropriate. If you have more than one preferred option, please number accordingly from 1 to 4.

Institutional framework

Option 1: Maintain current arrangements with improvements

Comments:

Option 2: Single on-site regulator with a separate licensing regulator

Comments:

Option 3: Ministerial Advisory Committee plus separate licensing body plus on-site regulation by local councils

Comments:

Your contact details

Your contact details are required should the Department of Water and Energy need to contact you to clarify any part of your submission. Your personal contact details will not be made publicly available.

Name: _____

Address: _____

Telephone: _____

Email: _____

If you are responding on behalf of an organisation or industry representation, please indicate:

Organisation: _____

Position: _____

Sector: _____