Reforming arrangements for regulating plumbing and drainage in New South Wales

Review report

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Government

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Summary and recommendations

The current institutional and technical frameworks that regulate plumbing and drainage in NSW are complex and prescriptive, with over 100 separate regulators, each able to impose different technical requirements through local variations to the NSW Code of Practice for Plumbing and Drainage. Concerns have been raised that this approach creates inconsistency and uncertainty, leading to unnecessary costs for businesses, consumers and government. Also, significant changes in the NSW water industry, including the introduction of a competitive water market and increased use of recycling and water conservation measures have increased the impetus for reform.

Plumbing and drainage regulatory frameworks have been evolving nationally. A majority of jurisdictions in Australia have already undertaken significant reform of their regulatory frameworks, including developing and adopting a uniform national code, the Plumbing Code of Australia. In July 2008, the Council of Australian Governments (COAG) agreed to the development of a National Construction Code, which will include plumbing.

In October 2006, as part of its review of regulatory burden in NSW, the Independent Pricing and Regulatory Tribunal (IPART) found that there is potential to deliver significant gains through reform to plumbing regulation and that an in-depth review of the plumbing framework should be undertaken. IPART recommended that the Government review plumbing and drainage regulation in the context of the changing water industry.

In November 2008, the Department of Water and Energy and the Better Regulation Office released a discussion paper to facilitate discussion of the current arrangements, the need for change and possible models for reform. The terms of reference for the review are in Appendix A.

16 submissions were received and used to inform the analysis and recommendations in this report. Submissions received during the 2002 review undertaken by the (then) Interagency Committee on Plumbing Regulation Reform were also considered. A list of submissions received is in Appendix B.

The Department of Water and Energy and the Better Regulation Office have considered the issues raised in submissions, and examined regulatory arrangements currently in place in NSW and other jurisdictions, as well as developments at the federal level. The review found that current arrangements in NSW are unnecessarily costly, complex, inconsistent and have not kept pace with the introduction of competition or developments in the water industry. The following recommendations for reform are put forward.

Recommendation 1
A single agency should be mandated with responsibility for standard setting, on-site regulation and licensing functions for plumbing and drainage work in NSW.

Recommendation 2
The plumbing and drainage regulator should consider developing, with councils, a process for delegating on-site inspection functions to appropriately qualified local building inspectors or other local expertise where appropriate.

Recommendation 3
The plumbing and drainage regulator should have jurisdiction over all plumbing and drainage work in NSW.

Recommendation 4
NSW should adopt the Plumbing Code of Australia.

Recommendation 5
That Sydney Water Corporation and industry continue to work together to identify and resolve delays in the network connections process, and that Sydney Water Corporation ensures the outcomes of this work are implemented as a priority.

Recommendation 6
A government implementation group should be convened to work with industry and develop a detailed proposal for the Government to establish the new single regulator in the Office of Fair Trading by mid 2010. The implementation group should aim to make its report to Government by early 2010.

Recommendation 7
The institutional reforms should be reviewed after two years of operation to assess their effectiveness, both in regulating the plumbing sector in NSW and in contributing to the administration of a National Construction Code. That review should specifically advise on whether any additional institutional reforms are required to improve outcomes.

Recommendation 8
That the implementation group develops a communications and education strategy to support the revised institutional arrangements and the commencement of the Plumbing Code of Australia in NSW from mid 2010.

Recommendation 9
That the implementation group should establish a technical group to conduct a detailed review of the current variations in the NSW Code to determine which of these variations needs to be retained in moving to the Plumbing Code of Australia. Each variation should be reviewed with a presumption that it will be removed unless it can be demonstrated to be essential for the protection of public health and safety, the environment, consumers or water infrastructure.

1. Introduction and need for reform

The Department of Water and Energy and the Better Regulation Office have conducted a review of NSW's plumbing and drainage regulatory framework, including technical and institutional arrangements. A discussion paper was released in November 2008 seeking stakeholder feedback on the operation of the framework and a number of options for reform. This report sets out the findings of the review, taking into account the goals of the regulation, stakeholder submissions and the need for an efficient, effective approach.

There is a recognised need to reform the approach to plumbing and drainage regulation in NSW, which is reflected in independent reviews and previous NSW Government studies. The current institutional and technical frameworks that regulate plumbing and drainage in NSW are complex and prescriptive, with over 100 separate regulators, each able to impose different technical requirements through local variations to the NSW Plumbing and Drainage Code. This creates inconsistency and uncertainty within NSW and with other States, leading to unnecessary costs for businesses, consumers and government. Most Australian jurisdictions have adopted the performance-based Plumbing Code of Australia as the basis of their technical arrangements and have implemented single or dual-regulator models.

The NSW water industry has also undergone significant change in recent years, as the need to increase and diversify supply, reduce demand and ensure drought security has been emphasised. This has led to the introduction of a range of new technologies to the plumbing and drainage sector and has impacted on the way that services are provided, accessed and used. These changes have highlighted the inconsistencies, confusion and gaps in the current regulatory framework.

The NSW framework creates a regulatory role for the owners of water infrastructure. This leads to regulatory uncertainty for privately developed 'off-the-grid' systems, and is inconsistent with the principles of competitive neutrality in light of the Government's introduction of competition to the urban water market. Competitive neutrality is intended to ensure a level playing field between public and privately owned businesses in a competitive marketplace.

2. Background

The aim of the plumbing and drainage framework in NSW is to minimise risk of harm from plumbing and drainage activities. This includes minimising damage to public health, the environment, consumers and plumbing and drainage assets, as set out below.

Public health and safety: Plumbing defects and illegal connections can risk public health. Improper installations or incorrect connections can allow contamination to occur. Examples include incorrect connections for recycled water, greywater reuse systems and rainwater tanks which can result in a non-drinking water supply mixing with a drinking water supply or faulty installation of a backflow prevention device that allows contaminated water to flow back through a pipe where there is a drop in mains pressure.

Environment: Environmental damage can result from poor plumbing and drainage work. For example, poor work may result in seepage of untreated wastewater to sensitive local environments such as bushland or streams.

Consumers: The concealed nature of plumbing work means that faults may not become obvious for some time after work is completed. This can lead to high costs of rectification of faulty work and repair of consequential damage at a later date.

Asset protection: Water assets include drinking and recycled water mains and sewer pipes managed by water utilities. Plumbing work that is connected to water assets must not damage the assets or interfere with the operation of the water utility. Examples include installing backflow prevention devices to stop untreated water flowing into drinking water mains and measures to prevent cross connections between stormwater and sewerage systems.

The role of regulatory reform is to ensure that reforms are achieved in the most cost effective way, without imposing unnecessary regulatory burden on industry or users. There has long been recognition of the need for reform in this area. In 2002, an Interagency Committee on Plumbing Regulation Reform conducted a review of plumbing and drainage in NSW, which found significant need for reform.

In October 2006, as part of its review of regulatory burden in NSW, the Independent Pricing and Regulatory Tribunal (IPART) recommended an in-depth review of the plumbing regulatory framework as a priority. The Tribunal found that “on-site plumbing regulation in NSW is the responsibility of numerous regulators and takes place under a complex and fragmented framework”, detailing submissions that “interpretations of the Plumbing Code, particularly at the inspector level, have been inconsistent and, in some cases, incorrect, resulting in project delays and additional costs for plumbers and their clients.” The Tribunal also said “this area of regulation affects a large and growing industry whose work forms a component of the significant housing and building industry. The regulatory burdens … have existed for years, directly impacting the plumbing industry and indirectly its large client base.” The Government committed to conducting a review in its response to IPART’s recommendations.

Stakeholder feedback

Sixteen submissions were received, from a range of stakeholders including industry and local councils. A list of submissions received is in Appendix B.

Most submissions recognised the need for reform, particularly in relation to the adoption of the Plumbing Code of Australia, citing confusion arising between the relevant Australian standard and variations under the NSW Code. A number of submissions expressed support for a single regulator, on the basis that it would improve consistency and accuracy in interpreting plumbing regulations. Many identified issues of concern with the single regulator model including the potential to lose the benefits of local expertise, and risks of reduced oversight.

Stakeholders also expressed concern about a perceived lack of accountability and regulatory gaps in the enforcement framework. This has the potential to lead to poor compliance exacerbated by under-resourcing and low skill levels of enforcement staff.

The discussion paper requested stakeholders to provide information about financial and time costs under the current framework, as well as possible financial and time costs under the options suggested. However, stakeholders did not quantify costs or benefits in their submissions.

The review team also conducted targeted stakeholder consultation to follow up on matters raised in submissions, and to seek stakeholder input on key issues.

The review also drew on the outcomes of the 2002 review of the plumbing regulatory framework.

3. Institutional framework

There are two basic institutional approaches to regulating plumbing in Australia. The first is a single agency administering on-site regulation, licensing and technical standards (such as in Victoria and Western Australia). The second is multiple agencies administering each aspect of the framework, which is the case in NSW. This chapter looks at the current institutional framework, and options for reform. Chapter 4 looks at technical standards.

3.1 Current framework

In NSW, licensing is managed by the Office of Fair Trading (OFT). Under the *Home Building Act 1989*, plumbing work must be completed by a person who holds a licence, a qualified supervisor certificate or a tradesperson certificate. The Office issues licences to plumbers who satisfy minimum standards (based on qualifications, training and experience agreed nationally) and appropriate insurance arrangements. The Office also investigates complaints of defective or illegal work and has disciplinary powers. The Council of Australian Governments (COAG) is currently developing a national trade licensing system to improve national workforce mobility and assist skills acquisition that includes plumbers. Licensing administration may remain with the Office (or other state-based licensing regulator) under a national plumbers licence, but requirements would be standardised across Australia.

On-site regulation is the monitoring of plumbing and drainage work to make sure that it complies with regulations. In NSW, this is a role for the water utilities, resulting in over 100 separate regulators, each responsible for on-site regulation in their area. The regulators take a number of forms, including NSW Government-owned water corporations, local councils and special-purpose county councils which provide water or water and sewerage services in some areas of the state.

The role of non-metropolitan local water utilities is being considered as part of a NSW Government inquiry which is seeking to identify the most effective institutional, regulatory and governance arrangements for the provision of water and sewerage services in regional NSW. The Minister for Water released the *Report of the Independent Inquiry into Secure and Sustainable Urban Water Supply and Sewerage Services for non-metropolitan NSW* in January 2009, for public comment by 20 March 2009. The Report's recommendations include that the current 106 local water utilities be combined into 32 regional groups, based on possible organisational models of binding alliance, council-owned water corporation and status quo. It is anticipated that the NSW Government will provide its response to the Report by mid 2009.

There are also other agencies and bodies that form part of the institutional framework. NSW Health provides water utilities with guidance on health issues, including rainwater tanks, recycling systems and installation of plumbing in particular places (such as hospitals or aged care facilities). Registered training organisations (such as TAFE NSW) provide training, based on a national Plumbing and Services Training Package.

3.2 Reform of the institutional framework

The discussion paper set out four options to reform the institutional framework and invited submission of alternative models. The same options were also set out in the 2002 review discussion paper. Each option is summarised below, along with feedback from the 2002 review, issues raised in submissions to this review, and an analysis of the option.

Option 1 – Maintain current arrangements

Under this option, current arrangements would be retained.

While a few submissions to both this review and the 2002 review supported maintaining the current arrangements, a significant number of submissions highlighted that the current system of multiple regulators duplicated resources and activities, leading to a lack of accountability and regulatory gaps. Each water regulator has its own systems and processes in place, as well as enforcing its own interpretation of relevant laws and standards in its area. This means that it can be difficult for plumbers to work in different water areas, where requirements and standards are different, leading to non-compliant work, unnecessary cost and possible risks to public safety. Queanbeyan City Council noted that "a multi-agency approach leads to inconsistencies between the various on-site regulators and this is considered a weakness."

The regulatory framework must facilitate effective inspection and compliance processes. Currently, inspection and compliance processes vary widely from water area to water area, which means that approaches and outcomes vary significantly. For example, in the Sydney area, Sydney Water Corporation employed 32 full time plumbing inspectors, who completed around 43,000 inspections in 2006-07 (some jobs needed more than one inspection). The high cost of conducting these inspections has led Sydney Water Corporation to implement a risk-based model, where a sample of plumbers work will be inspected based on risk. In contrast, the Gosford City Council water supply authority has three inspectors, who primarily inspect work related to new developments, rainwater tank installations and backflow prevention device installation. The authority carries out around 400 assessments each year.

Multiple regulators mean high administrative and compliance costs. Cost to industry includes duplicative reporting and unnecessary compliance costs as businesses work under different requirements or interpretations of requirements in different water areas. Cost to users include navigating a complex framework, rectifying non-compliant work that results from confusion and dealing with a number of different regulators. Costs incurred by government under a multiple-regulator system include costs of coordinating and administering a range of bodies.

This model does not meet the requirements of competitive neutrality, as water utilities remain as both service provider and regulator. This conflict of interest means that utilities compete against other service providers, while also signing off on their own and other providers' work. TAFE NSW criticised this option, highlighting "concerns about water utilities breaching competitive neutrality arrangements." Additionally, maintaining a system of multiple regulators and approaches would complicate NSW engagement with relevant national processes, such as the development and implementation of a National Construction Code (NCC).

The major advantage of the current system is the local knowledge and context brought to on-site inspections conducted by a local body. In submissions to the review, a number of local councils supported multiple regulators in their submissions, saying that the current approach protects assets

and the community, while providing an efficient, familiar and timely service. Local councils highlighted that plumbing inspections are often undertaken as part of a more general building inspection service, which streamlines approvals processes for clients. The benefits of local knowledge to effective plumbing regulation is acknowledged, and the possibilities for retaining these advantages under a single regulator is considered in the discussion of Option 4.

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

Option 2 would move responsibility for on-site regulation to a single body, but maintain separate licensing and regulatory agencies, with the OFT retaining its licensing responsibility. This option deals with some of the costs and complexity of the current arrangements by consolidating functions into fewer regulators, particularly ensuring that on-site regulation is consistent and coordinated across NSW. A number of submissions questioned the effectiveness of a single regulator on issues of local expertise and asset protection. These issues are discussed below.

Maintaining the licensing system within OFT utilises its expertise in administering a number of different forms of business licensing. A potential drawback of this option is that maintaining separate regulators for licensing and on-site inspections might reduce the effectiveness of compliance and enforcement. In its submission, Sydney Water Corporation said:

> "To drive good plumber performance, it is important that there is appropriate follow up action when poor performance is found. When Sydney Water Corporation finds examples of serious or consistently bad plumbing work, it notifies the Office of Fair Trading for its follow up and the two organisations cooperate to deal with the issue. However, dealing with poor plumber performance could be more effective if the functions of licensing and on-site regulation were together under one organisation."

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

Option 3 would separate out the various regulatory functions to three agencies. The Office of Fair Trading would retain its licensing function. On-site regulation would be conducted by local councils in all cases (rather than relevant water utilities in some areas). Policy, standard setting and compliance would be the responsibility of a Ministerial Advisory Committee, guiding the operations of local councils.

This option was not favoured in submissions, as three tiers of governance was seen as increasing bureaucracy and inefficiency, leading to inconsistent application of regulation, fragmentation of accountability and a lack of coordination across each body. TAFE NSW referred to the "inefficiencies and complexities related to the interpretation and communication of more than one agency providing regulatory services." The role of the proposed Ministerial Advisory Committee was also questioned, with concerns raised that it would not be accountable, have the required technical expertise or be able to take on a leadership role in the industry. Wingecarribee Shire Council described the option as "too complicated."

This option does not deal with the issues of complexity and competing roles that cause unnecessary cost and inefficiency in the current approach. As discussed above, multiple regulators lead to increased administrative costs, both for government and industry, duplicative roles and processes and diluted compliance and enforcement powers. Rather than streamlining on-site regulation, this option would create additional regulators with smaller regulatory areas. This would result in unnecessary cost and regulatory burden, and potentially reduced effectiveness in managing risk and protecting the community.

As with option 1, this approach would not address the competitive neutrality issues around water utilities acting as both a service provider and a regulator in a competitive water market. Also, multiple regulators would increase the complexity and cost of implementing a National Construction Code.

Support expressed for this proposal in submissions highlighted either the benefits of local level regulation and inspection, which was considered to provide better consumer and community protection, or the benefits of statewide oversight, which was seen to lead to better consistency in implementation, regulation and training. Both of these issues are discussed under option 4.

Option 4 – All regulatory functions managed by a single agency

Option 4 proposed a single agency model, with all administration, policy and regulatory functions integrated into one body. This is the recommended model, with the highest level of stakeholder support and the closest alignment with the aims of the review and goals of the regulatory framework.

Consolidating all regulatory power into one body means a more effective inspection regime, with consistent application across all water areas, and the ability for the inspecting regulator to immediately suspend a licence on the basis of non-compliant work. It also removes the problems of duplication, overlap and gaps that manifest under a multi-regulator system. Of the four options considered, this approach most effectively improves certainty and reduces costs, ensures the integrity of the plumbing and drainage network, and consequently the safety of the community.

Respondents argued that a single standardised approach across the state would improve compliance and reduce complexity caused by multiple participants, particularly around issues of transparency and performance review. Also, it was seen as the best option for on-site inspection and regulatory compliance. A single agency integrating standard setting, on-site regulation and licensing functions would avoid duplication and ensure fairness, consistency and accountability.

The Master Plumbers and Mechanical Contractors Association of NSW said:

> "The establishment of a single regulatory authority… would bring an end to the multitude of regulatory regimes now controlling plumbing in NSW."

Sydney Water Corporation emphasised the effectiveness of a unified system:

> "The fragmentation of [the plumbing framework's] functions reduces the effectiveness of the regulatory system… There is an opportunity to improve the standard of plumbing work by linking plumber performance, communication, training and development with licence renewal, penalties and other mechanisms to improve plumbing performance."

TAFE NSW noted the benefits for standardised rules and processes:

> "A major benefit for NSW adopting a single agency model is that it would lead to faster harmonisation of standards both within and across jurisdictions by reducing the complexity of multiple rules and processes."

The integration of functions will also reduce administrative costs for industry and consumers, providing a one-stop shop to access information, book inspections and address issues or complaints.

Transferring regulatory functions away from service providers removes potential conflicts of interest for water utilities acting as both regulator and service provider, reducing competitive neutrality concerns.

A further benefit of a single agency is the potential for ensuring the alignment of plumbing and drainage policies with other government policies, such as water conservation, and would assist NSW in engaging with relevant national processes, such as the development and implementation of a National Construction Code. The reduction in the number of plumbing regulators in NSW from over 100 bodies to a single agency would help NSW contribute to the implementation of the NCC. For example, the NSW body responsible for the building components of the NCC (which is currently housed in the Department of Planning) would work with the single plumbing regulator when developing a whole of NSW Government position. The single agency would be able to coordinate both adoption of plumbing standards contained in any national Code in NSW, and manage their roll out across the State, working closely with the building regulator. This would strengthen knowledge of and compliance with the technical framework.

A further advantage of a single regulator would be its ability to consolidate regulatory processes related to network connections, which may improve efficiency and timeliness, while ensuring that unnecessary delays did not lead to increased cost for people connecting to the network.

Recommendation 1:	**A single agency should be mandated with responsibility for standard setting, on-site regulation and licensing functions for plumbing and drainage work.**

Some submissions expressed concerns that a single-regulator model may lead to the loss of local knowledge in the on-site inspection process and the potential risk of damage to water assets due to lower numbers of inspections of plumbing and drainage work through adoption of a risk-based approach. These issues are discussed separately below.

Local knowledge

There was a significant level of concern expressed in submissions, particularly from local councils, that a single agency model would mean a loss of local knowledge and context and lower levels of compliance in regional NSW. An example of this concern was MidCoast Water's submission, which suggested:

> "A single onsite regulator would inevitably become heavily reliant on self certification and audit processes which offer inferior protections to the customer. A single regulator would not be able to offer existing levels of service in regional areas and would not have the intrinsic connection with community of a local water authority."

This view was not expressed unanimously. For example, TAFE NSW said:

> "…a centralised body would include the required flexibility and would not be disassociated from local issues."

There are a number of options for managing on-site regulation under a single agency, including the agency employing its own inspectors or contracting out inspection to local council inspectors or certified private inspectors. A single agency model does not preclude the use of local council inspectors or necessarily lead to an increased use of self certification or risk-based processes. In any case, in many areas of NSW inspections are already undertaken on the basis of random audit or risk.

The Local Government and Shires Association of NSW observed that:

> "To ensure physical inspection is undertaken in the most efficient way, actual inspections and/or audits should continue to be undertaken by council building inspectors (e.g. under instruction/delegation). Council building inspectors are already available on the ground. Inspections should be on a full cost recovery basis. This would ensure that physical inspection is undertaken in the context of local circumstances and with local knowledge. Detected deficiencies in plumbing and drainage works would be directly provided to the licensing regulator. In this context it needs to be noted that separation of on-site plumbing regulations and provision of water supply and sewerage services already exists within councils. Currently, plumbing inspection is undertaken by building inspectors and not by the local water utility."

Other submissions also considered that inspections, however they may take place, should be conducted on a full cost recovery basis. Hunter Water Corporation, said:

> "I see no reason why there could not be a fee for on-site inspections that would provide a source of funding for the on-site function."

For example, MidCoast Water, which inspects all plumbing and drainage installations in its jurisdiction, charges on a full-cost recovery basis. Queanbeyan City Council advised that the costs it incurs to undertake on-site plumbing and drainage inspections are recovered through the development approval process, calculated by the individual plumbing and drainage that is proposed in relation to a development.

In jurisdictions where risk-based or random inspections of plumbing work is undertaken, plumbing inspection fees may be built into other types of customer service charges. For example, Hunter Water Corporation, which inspects a subset of plumbing installations, has proposed that customer services charges, such as charges applied when a water or sewer service connection is made, shall incorporate a plumbing inspection fee. The Victorian Plumbing Industry Commission is a self-funding body but does not directly charge consumers or plumbers for its randomly conducted drainage inspectors or compliance audits.

The most effective approach is to combine the benefits of a single regulator model with the advantages of local knowledge and context. This could be achieved by the single regulator utilising local expertise, such as local plumbing inspectors or authorised private inspectors where appropriate. This would retain the benefits of local knowledge and experience, with a consistent interpretation of requirements and approach to inspections. A benefit for any local inspectors would be access to the single regulator's other staff's expertise, making the inspection process more comprehensive and effective.

Recommendation 2:	**The plumbing and drainage regulator should consider developing, with councils, a process for delegating on-site inspection functions to appropriately qualified local plumbing inspectors or other local expertise where appropriate.**

Asset protection

Protection of plumbing and drainage assets is the responsibility of the network owner and is an objective of the regulatory framework. Network owners protect their assets by requiring applications for new connections, which gives the network owner the chance to assess the impact of work on water quality and the asset before it allows the connection. Separately, it is the role of a regulator to make sure that any work completed to make the connection complies with technical standards.

Concerns were raised that a single agency model would lead to increased use of risk based enforcement, currently in place in some water areas. The review notes that, in principle, risk based enforcement can be as effective as a system of full inspections in ensuring compliance with technical standards and does not necessarily impact on a network owner's ability to ensure integrity of its asset.

Asset protection was considered an issue by local councils, who have to comply with health and environmental requirements under a range of laws. The Local Government and Shires Associations of NSW noted that:

> "[the regulatory framework needs to ensure that] local water utilities' systems and assets are protected to ensure utilities can meet public health and environmental requirements in their systems."

The Local Government and Shires Associations recognised that on-site regulation and asset protection are different processes carried out by separate bodies:

> "…it needs to be noted that separation of on-site plumbing regulations and provision of water supply and sewerage services already exists within councils. Currently, plumbing inspection is undertaken by building inspectors and not by the local water utility."

The current approach, where a network owner has control over its asset and maintains appropriate connection processes to protect the integrity of the asset, would not change with a move to a single regulator. The water supplier would continue to assess the impact of work on its assets before it goes ahead. The regulator's role would be to ensure that work complies with technical standards.

Regulating private plumbing work

A number of submissions raised emerging issues where on-site plumbing or drainage works do not connect to the water grid, and so may not fall within the jurisdiction of some current regulators. The Local Government and Shires Associations said that:

> "[the regulatory framework needs to ensure that] effective regulation is in place for self-contained water supply and sewage systems."

Sydney Water Corporation gave the example of private recycling systems, explaining that there was a lack of clarity around its powers to regulate:

> "Industrial users of these systems may be capable of looking after their own interests but on-site recycling systems are now being used on some large residential developments where they may present significant problems to consumers if not properly designed, installed and maintained. These new approaches to on-site water management expose gaps where there is no authority that is clearly the regulator of on-site plumbing work. These on-site self-contained systems present risks to consumers and their health as well as risks to the environment. These emerging gaps in regulatory roles could be resolved by having a regulatory agency for on-site plumbing work that is not dependent on connection to a utility's network."

The current gaps in the regulatory framework mean that regulators do not have jurisdiction over all plumbing and drainage work in their areas. Off-grid work that is non-compliant could damage the environment or risk the health of its users. The plumbing regulator should be given jurisdiction over all plumbing and drainage work in NSW, to ensure that all work complies with the relevant technical standard and to safeguard the environment and public health and safety. At the same time, the regulator should have the flexibility to reach agreement with owners of off-grid infrastructure (particularly for industrial or commercial infrastructure) on levels of on-site regulation and inspection, to maximise the efficiency of the regulatory framework.

Recommendation 3:	**The plumbing and drainage regulator should have jurisdiction over all plumbing and drainage work in NSW.**

4. Technical standards

4.1 Current arrangements for technical standards

Technical standards are currently imposed by the NSW Code of Practice for Plumbing and Drainage ("NSW Code"), managed by the Committee on Uniformity of Plumbing and Drainage Regulations (CUPDR). 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 NSW Code is put in place by regulations under the law that create and regulate water utilities (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*). The Code calls up Australian Standard 3500 ("the Standard") and documents variations and additions to the Standard. The NSW Code is prescriptive, which means that it sets out a particular way to complete a task.

The NSW Code covers the plumbing work for:

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

The NSW Code includes a number of variations and additions to the Standard. These include variations and additions to accommodate the safe use of alternative sources of water, such as water harvested from roofs, in properties which have a reticulated drinking water supply. Also, the water utility or council with regulatory responsibility for plumbing work in a particular area can vary the technical requirements in the Code to suit local conditions, with the approval of CUPDR.

4.2 Reform of technical standards

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 (although it has not been adopted in its entirety and without variation in any jurisdiction).

Four options for reforming technical standards were included in the issues paper. The first two options were to maintain a prescriptive, NSW-based code. The first option maintained the NSW Code in its current form, while the second retained the NSW Code, but removed the system of local variations. The third and fourth options were to adopt a performance based approach, one developed for NSW (option 3), and the other to adopt the Plumbing Code of Australia (option 4).

Submissions overwhelmingly supported the adoption of the Plumbing Code of Australia. The current NSW Code was criticised for creating undue complexity and cost. Queanbeyan Shire Council summarised its drawbacks:

> "…different approaches to the technical requirements throughout the state create a level of uncertainty for practitioners which can lead to a cost burden. There are no real strengths with a system that creates confusion by varying requirements from one area to another."

The current NSW Code is inflexible and creates unnecessarily complex processes for industry, users and government. Prescriptive requirements are not easily changed to keep up with changes in water use or technology, leading to inappropriate requirements or slow adoption of beneficial practices and developments. Local variations across different water areas add further cost and complexity to the framework, requiring plumbers to consider different requirements when working on adjacent properties that are in different water areas. These issues create unnecessary cost, undermine the public health and environmental goals of the regulatory framework, result in complexity and confusion and can lead to non-compliant work and associated rectification costs.

The Master Plumbers and Mechanical Contractors Association of NSW said:

> "It is fair to say that the lack of adoption of the [Plumbing Code of Australia] across Australia by individual jurisdictions has been the greatest barrier to consistency in plumbing regulation and as such has had an impact on the mobility of plumbers and contractors, as well as creating significant cross-border difficulties for contractors working in different jurisdictions."

A NSW-specific performance based approach is also inappropriate, as it would keep NSW separate from other jurisdictions. The majority of Australian jurisdictions have adopted a national approach, with related cross-border efficiencies. A state-based approach would retain the cross-border issues of the current system, including unnecessary compliance and rectification costs. In its submission, Queanbeyan Council noted:

> "Costs are incurred by plumbers and drainers who conduct most of their work in the adjoining ACT and wrongly assume that all the variations that are allowed in the ACT are allowed in NSW."

Additionally, a NSW-specific approach would complicate the transition to a National Construction Code.

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 design processes for the certification and authorisation of materials and products. It includes deemed to satisfy provisions, which

are prescriptive and call up AS 3500, and alternative solutions, which allow for flexibility as long as performance criteria are met. Where an alternative solution is in place, a plumber provides evidence it meets the criteria.

In its submission, Sydney Water Corporation said:

> "The performance-based outcomes approach of the Plumbing Code of Australia will stop technical requirements needing to be overly prescriptive. This will allow periodic updating of standards to include new technology or sustainable practices, without having standards and codes in a continual state of review, as is the case with the NSW Code of Practice. Keeping the plumbing industry updated and trained will be easier and should bring improved compliance."

A major benefit of the Plumbing Code of Australia is its ability to respond to technology developments and support innovation, such as through the use of alternative sources of water or new recycling technologies. In addition to the inherent flexibility of a performance-based approach, the Code is subject to regular revision and is closely aligned with the national direction for plumbing and drainage. This will assist the transition to a National Construction Code, which is being developed by COAG and will include plumbing. It will also ensure that training requirements for plumbers, as set out in the National Training Package, are consistent across Australia and NSW.

For plumbers working under the current prescriptive arrangements, the existing AS 3500 standard will remain in place and provide detailed guidance. Instead of a complex system of fixed variations, performance based guidelines facilitate locally-appropriate solutions, without the problems of competing requirements across water areas. A performance approach will mean lower compliance costs, fewer instances of unnecessary rectification of appropriate, but non-compliant work, and significant efficiency gains for both plumbers and regulators.

Recommendation 4: NSW should adopt the Plumbing Code of Australia.

5. Network connections

The issues paper sought feedback on any red tape associated with connecting new development projects to water and sewerage services. Major new development projects are significant investments, and any delays in approvals, inspections, or certifications can cost millions of dollars.

None of the submissions received by the review raised any concerns about the regulatory or administrative processes for network connections. In its submission to the review, Sydney Water Corporation provided some details of its approach to ensuring timely connection to its water and sewerage assets:

- Sydney Water Corporation issues 80 per cent of its Notice of Requirement letters within 30 days, and 100 per cent within the statutory 60 day time limit. Sydney Water Corporation reports its performance in the Developers Digest magazine of the Urban Development Institute of Australia NSW (UDIA).
- Sydney Water Corporation participates in regular meetings with the UDIA to discuss and resolve industry concerns. These discussions have led to a number of process improvements to reduce delays including the use of 'tee and valve connections' and other initiatives to allow earlier connections and reduce costs and delays.

As part of the review process, the Better Regulation Office conducted targeted follow-up consultation with key industry stakeholders, developers, and Water Services Coordinators (WSCs). Those inquiries identified a number of industry concerns about delays that can occur during the connection process, and identified some opportunities for streamlining and improvements.

Stakeholders raised concerns about delays that can occur at a number of points in the connections process, including:

- delays in organising and completing plumbing inspections, and the frequency of new Sydney Water Corporation specific variations to the NSW Plumbing Code
- inconsistent communication and interpretation of design requirements by Sydney Water Corporation
- developer works having a lower priority than competing demands, such as burst water mains or loss of service in other areas, resulting in significant and unexpected delays to some projects
- a shortage of appropriate skills in the relevant areas of Sydney Water Corporation
- delays in achieving chlorination of mains works.

Stakeholders also suggested a number of areas where processes could be streamlined or improved, including:

- for Sydney Water Corporation to accept proposals for Notice of Requirement assessments prior to development approval to shorten project design timeframes
- the potential to allow external parties to approve some design elements or to perform other parts of the process normally performed by Sydney Water Corporation
- to make improvements to Sydney Water Corporation's eDeveloper system, used by the industry to track the progress of projects through the process
- improving communication with the industry through the Water Services Coordinators Forum and the Sydney Water Corporation Quality Council.

In a number of areas, industry stakeholders expressed a willingness to pay for access to dedicated resources to support developer connection work.

The Better Regulation Office examined each of the issues raised, including through researching the legislative requirements and assessing the impacts of the issues, and pursued several of the issues with Sydney Water Corporation. The majority of concerns will be addressed through processes already underway:

- concerns relating to plumbing inspections and local variations to the NSW Plumbing Code will be addressed through the adoption of recommendations made in other parts of this review report
- the Master Plumbers Association of NSW is working with relevant agencies and education providers to develop new training opportunities and skills development that will benefit both Sydney Water Corporation and the broader industry
- Sydney Water Corporation has recently invested over $4 million to upgrade its eDeveloper system, improving service provision
- Sydney Water Corporation is currently considering a range of options for improved chlorination services in consultation with the UDIA, including examining the potential for outsourcing that work, or authorising third parties to perform chlorination work
- Sydney Water Corporation has instituted a 'feasibility study' process, through which it assesses and provides details of the infrastructure requirements of a proposed development and indicative costs, prior to the proponent obtaining development approval for the project. This provides an alternative for those developers seeking an early indication of Notice of Requirements, and Sydney Water Corporation encourages developers to use this service
- Sydney Water Corporation has recently completed an internal restructure to co-locate the service areas relevant to developer works into the one Division, thereby improving internal communications, resource allocation and consistency.

Many of the other issues raised relate directly to Sydney Water Corporation's processes for working with developers and WSCs. In this regard, Sydney Water Corporation has recently initiated a major review of its business process for managing new developments that impact on its network. The Managing New Developments review involves working with the development industry, including WSCs, to design a new process framework and new business operating model to deliver improved services to the industry. The project is expected to be completed by the second half of 2009.

The Better Regulation Office considers that the Managing New Developments review provides an appropriate opportunity for Sydney Water Corporation and the industry to identify and work through any remaining unnecessary delays in the connections process, and to capture the benefits of the industry's suggestions for streamlining and simplifying the process.

Recommendation 5:	**That Sydney Water Corporation and industry continue to work together to identify and resolve delays in the network connections process, and that Sydney Water Corporation ensures the outcomes of this work are implemented as a priority.**

6. Implementation

There are a number of issues to be considered in the implementation of the recommendations of this report.

The outcome of the local water utilities review may impact on new institutional arrangements as the majority of on-site regulators are also water utilities. The implementation strategies arising from this report will consider the outcomes of local water utilities review to ensure a consistent approach.

6.1 Institutional arrangements

The proposed single plumbing regulator could be a stand-alone agency or housed within an existing department. Establishing the single regulator within a current department, such as the Department of Planning, the Department of Water and Energy (DWE) or the Office of Fair Trading (OFT), would allow the regulator to capitalise on the existing expertise within those departments, without impacting on its independence in conducting its regulatory role. For example, the Department of Planning has existing building and construction expertise, through its role in coordinating the implementation of the Building Code of Australia in NSW. DWE has policy experience in plumbing and drainage matters, coordinates technical arrangements for plumbing through CUPDR, and has broader policy responsibility for the water industry. OFT has significant home building and licensing expertise, including through its administration of the licensing of plumbers and drainers.

On balance, the review considers that the OFT would be the most appropriate location for the new agency. This would leverage OFT's experience in home building and licensing, and would provide an effective 'one-stop-shop' for industry, consumers and other Government stakeholders in dealing with plumbing regulatory issues.

There would be a number of practical issues to work through in establishing the new regulator including staffing, budget, and funding arrangements. There are a number of options for managing on-site regulation under a single agency, including the agency employing its own inspectors or contracting out inspection to local councils or authorised private inspectors. There may also be an opportunity to realise greater efficiencies from contestability in inspection services. The most efficient arrangement may differ between areas across the State depending on the available local expertise. To the extent that inspections are conducted on a cost recovery basis, the charging arrangements should be consistent across agency, council and private inspections. Arrangements need to be developed for effective record-keeping, including provision of relevant information to the regulator and asset owners.

Resolution of these implementation issues should be informed by a broad range of government and industry stakeholder expertise. Accordingly, an implementation group chaired by OFT and made up of the departments of Health, Local Government, Planning and Water and Energy and the Better Regulation Office should be tasked with working through these implementation issues with industry stakeholders and making detailed recommendations to Government on the establishment of the new regulator.

The new single plumbing regulator should be in place by mid 2010 and take into account the outcomes of the local water utilities review and the development of the National Construction Code.

A number of submissions to this review suggested that, under changed institutional arrangements, water network operators would wish to remain engaged in policy setting processes. For example, the Local

Government and Shires Associations of NSW (LGSA) suggested that any regulatory framework should include an advisory body comprising relevant stakeholders including local government. As parts of its task, the government implementation group should consider the most appropriate means of engaging with industry, including network operators, on an ongoing basis.

Recommendation 6:	**A government implementation group should be convened to work with industry and develop a detailed proposal for the Government to establish the new single regulator in the Office of Fair Trading by mid 2010. The implementation group should aim to make its report to Government by early 2010.**

Fit with a National Construction Code

As mentioned above, this review of the regulation of plumbing is being conducted against a broader backdrop of COAG's development of a National Construction Code, which will in the first instance include both building and plumbing. It is important that the model adopted for the regulation of plumbing in NSW will support the adoption of a National Construction Code.

It is not yet clear what governance arrangements would be put in place at the national level to support a National Construction Code. However, it is likely that each State and Territory government would need to be in a position to contribute at the national level on both building and plumbing related policy and technical matters.

The proposal set out in this report, for a single plumbing agency located in OFT, will provide for effective NSW representation on plumbing related issues under a National Construction Code. The Fair Trading and Planning portfolios could jointly represent NSW at the national level, or NSW's representation could be channelled through one of those agencies if necessary. This is a significant improvement on the current arrangements, and would be supported by formal mechanisms for cooperation and coordination between the agencies to ensure a consistent and effective whole-of-government position.

An alternative model would be to bring both the building and plumbing regulators together within one of the existing departments, or as a stand-alone agency (such as the Victorian Building and Plumbing Industry Commissions). While this model would clearly have merit in providing a one-stop-shop for industry and consumers and a single voice at the national level, it would also have some drawbacks including the separation of building and plumbing policy from the broader context of the agencies in which they are now housed. The broader question of whether or not the building and plumbing regulators should be brought together into a single agency would be an additional and significant institutional reform, and warrants more detailed consideration in its own right. A decision on this matter should be informed by experiences of administering a National Construction Code, and the effectiveness of the institutional reforms proposed in this report. The implementation of a single plumbing regulator in OFT would not prevent further reform taking place in the future if necessary, and should be pursued immediately.

Recommendation 7:	**The institutional reforms should be reviewed after two years of operation to assess their effectiveness, both in regulating the plumbing sector in NSW and in contributing to the administration of a National Construction Code. That review should specifically advise on whether any additional institutional reforms are required to improve outcomes.**

6.2 Technical arrangements

The Plumbing Code of Australia (PCA) should be adopted in NSW from mid 2010. This will allow sufficient time to prepare industry for transition to the PCA.

Industry transition will include plumbers and inspectors becoming familiar with the new approach and requirements. As both the current NSW Code and the PCA draw from the same Australian Standard, work that is compliant under the NSW Code should satisfy deemed to comply provisions of the PCA (unless there is currently a local variation in place). However, plumbers and inspectors will need to be informed of the implications of adopting the performance-based PCA, as well as the processes for demonstrating compliance where an alternative approach has been employed. At a minimum, this would involve a series of industry briefings or seminars throughout the State. The briefings or seminars should also provide information on the revised institutional arrangements. This phase of the transition should be closely managed with TAFE and other training institutions, to ensure that existing plumbers and inspectors have their skills updated, and current plumbing students are adequately trained in a performance-based approach.

Recommendation 8:	**That the implementation group develops a communications and education strategy to support the revised institutional arrangements and the commencement of the Plumbing Code of Australia in NSW from mid 2010.**

The NSW Code currently contains a number of specific variations to the relevant Australian Standard. A number of these variations may be superseded by the adoption of the performance based PCA, while it may be necessary to reaffirm other local variations for technical reasons as deemed to comply solutions. Recognising the need for specific variations based on geographical, geological or climate factors that apply in a particular area, each of these variations needs to be examined to determine whether or not it needs to be retained. In the interests of enhanced national consistency, however, the number of NSW specific variations to the national standard should be minimised.

Recommendation 9:	**That the implementation group should establish a technical group to conduct a detailed review of the current variations in the NSW Code to determine which of these variations needs to be retained in moving to the Plumbing Code of Australia.** **Each variation should be reviewed with a presumption that it will be removed unless it can be demonstrated to be essential for the protection of public health and safety, the environment, consumers or water infrastructure.**

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
- 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

Submissions received

Submissions as follows were received in response to the 2008 Discussion Paper:

- Albury City Council
- Country Water
- Dodds, Graeme (individual)
- Dubbo City Council
- Environmental Development and Allied Professionals
- Hunter Water Corporation
- Local Government and Shires Associations of NSW
- Master Plumbers Association of NSW
- MidCoast Water
- Queanbeyan City Council
- Retriever Communications
- Sydney Water Corporation
- TAFE NSW
- Weddin Shire Council
- Wingecarribee Shire Council
- Wollondilly Shire Council