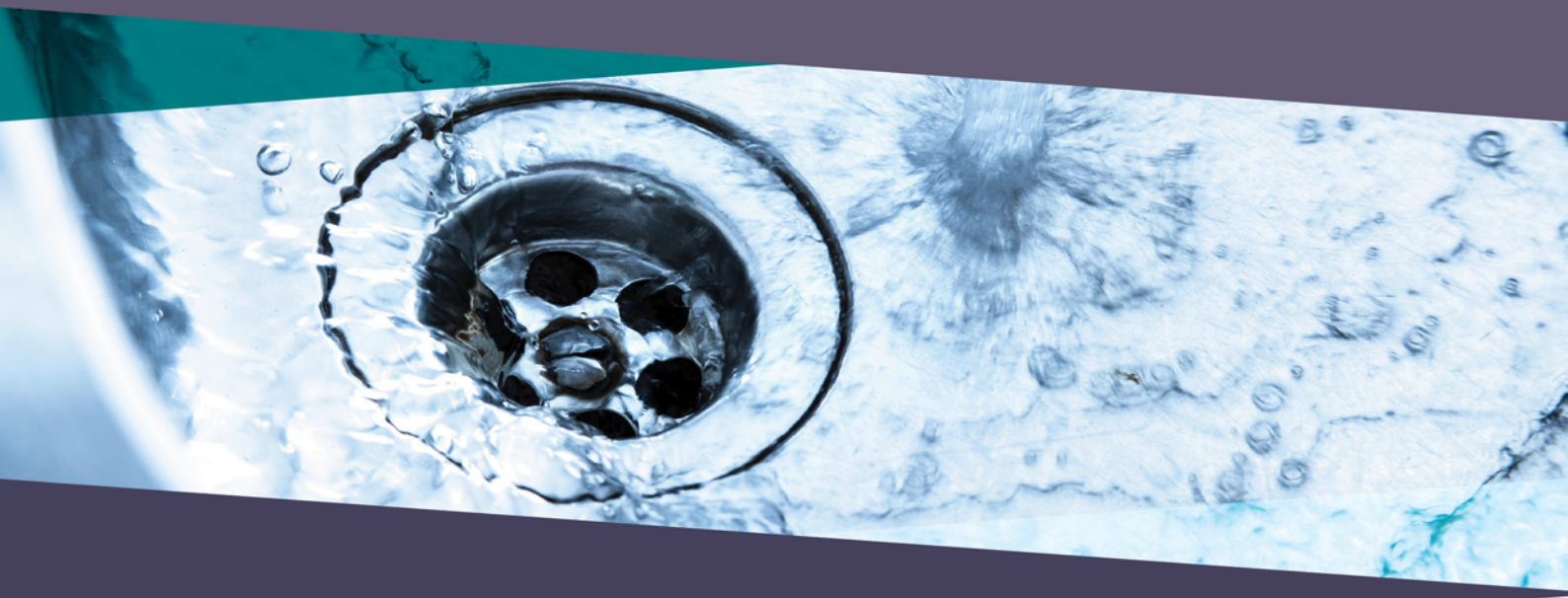
Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**



Consultation Regulatory Impact Statement

Reform of Plumbing Regulation in Western Australia

1 May 2018

Disclaimer

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Glossary of terms

CRIS	Consultation Regulatory Impact Statement
Board	Plumbers Licensing Board
NOLS	National Occupational Licensing Scheme
ACIL Allen	ACIL Allen Consulting
PCA	Plumbing Code of Australia
Plumbing Regulations	Plumbers Licensing and Plumbing Standards Regulations 2000
SAT	State Administrative Tribunal
DRIS	Decision Regulatory Impact Statement
Plumbing Act	*Plumbers Licensing Act 1995*
Water Services Act	*Water Services Act 2012*
LPC	Licensed Plumbing Contractor
RPP	Restricted Plumbing Permit
NCC	National Construction Code
COAG	Council of Australian Governments
COC	Certificate of Compliance
RIA	Regulatory Impact Assessment
IGA	Intergovernmental Agreement
BCA	Building Code of Australia
OWMS	Onsite Wastewater Management System
EHO	Environmental Health Officer
ABCB	Australian Building Codes Board
MPGA	Master Plumbers and Gasfitters Association of WA
TMV	Thermostatic Mixing Valve
RTO	Registered Training Organisation
Marsden Jacob	Marsden Jacob Associates
GWIG	Greywater and Wastewater Industry Group
LGA	Local Government Authority

01 Background

1.1 The Plumbing Industry in Western Australia

Historical context

Prior to the early 1990s, plumbing work across Australia was regulated by water services providers under a framework that reflected the structure of the water industry. In Western Australia (WA), the regulator was the Water Authority.

As part of wider reforms to implement the National Competition Policy, the Water Authority's regulatory and service provider functions were separated on 1 January 1996. This resulted in the Water Corporation taking on the service provider role, with the Office of Water Regulation becoming the regulator. It was proposed to establish a separate licensing board for plumbing at the same time but for various reasons that did not occur for another four years. In the intervening period the regulation of plumbers and the work they carried out remained the responsibility of the Water Corporation.

In June 2000, amendments to the *Water Services Coordination Act 1995*[1] established the Plumbers Licensing Board (Board). Although the Board operated under the auspices of the Office of Water Regulation[2], it was funded entirely by the plumbing industry.

Initially, the Board's role was to administer the licensing scheme and monitor the conduct of licensed plumbers. In July 2004, that role was broadened to also include the regulation and control of plumbing work.

The Board currently operates within the Building and Energy Division of the Department of Mines, Industry Regulation and Safety (Department), whose staff provide administrative, accounting and regulatory support to the Board.

Size of the industry

As at 30 June 2017, there were 7,381 persons licensed to carry out water supply, sanitary and drainage plumbing work in WA. That figure was made up of 3,577 Licensed Plumbing Contractors (LPCs), 3,673 licensed tradespersons (who work under the general direction and control of LPCs), 99 restricted plumbing permit holders and 32 provisional licence holders. Over the five years to 30 June 2017, there was a 13% increase in the number of licensed plumbers. As demonstrated by the tables below, this was mostly due to an increase in LPCs.

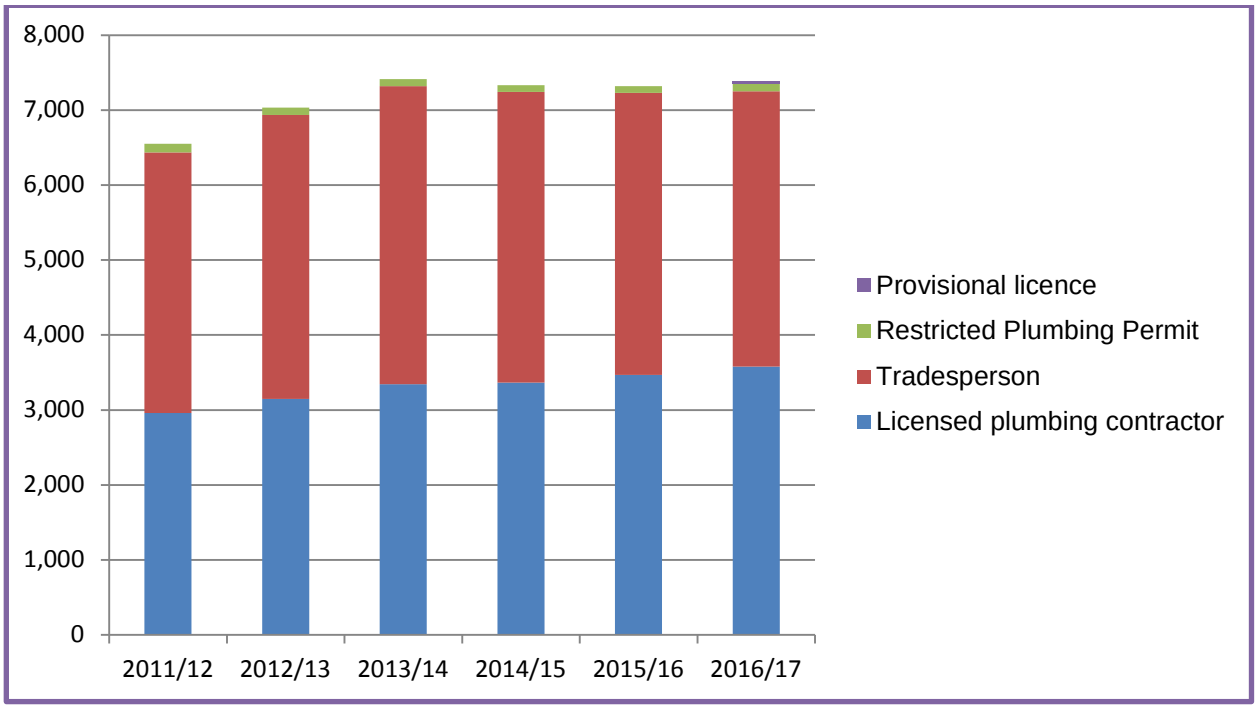
[1] In 2003, the *Water Services Coordination Act 1995* was re-named the *Water Services Licensing Act 1995*. In 2012, the *Water Services Licensing Act 1995* was restructured to leave only those Parts relating to the licensing of plumbers and related matters. In 2014, the *Water Services Licensing Act 1995* was re-titled the *Plumbers Licensing Act 1995*.

[2] The Board was later transferred to the Department of Consumer and Employment Protection which subsequently became the Department of Commerce.

Table 1: Number of licence and permit holders from 2011 to 2017

Year	LPC	Tradesperson	Restricted plumbing permit	Provisional licence	Total
2011/12	2,960	3,477	113	N/A	**6,550**
2012/13	3,147	3,788	99	N/A	**7,034**
2013/14	3,345	3,972	97	N/A	**7,414**
2014/15	3,367	3,876	89	N/A	**7,332**
2015/16	3,470	3,758	92	N/A	**7,320**
2016/17	3,577	3,673	99	32	**7,381**
5-year change	**+617**	**+196**	**-14**	**+32**	**+831**

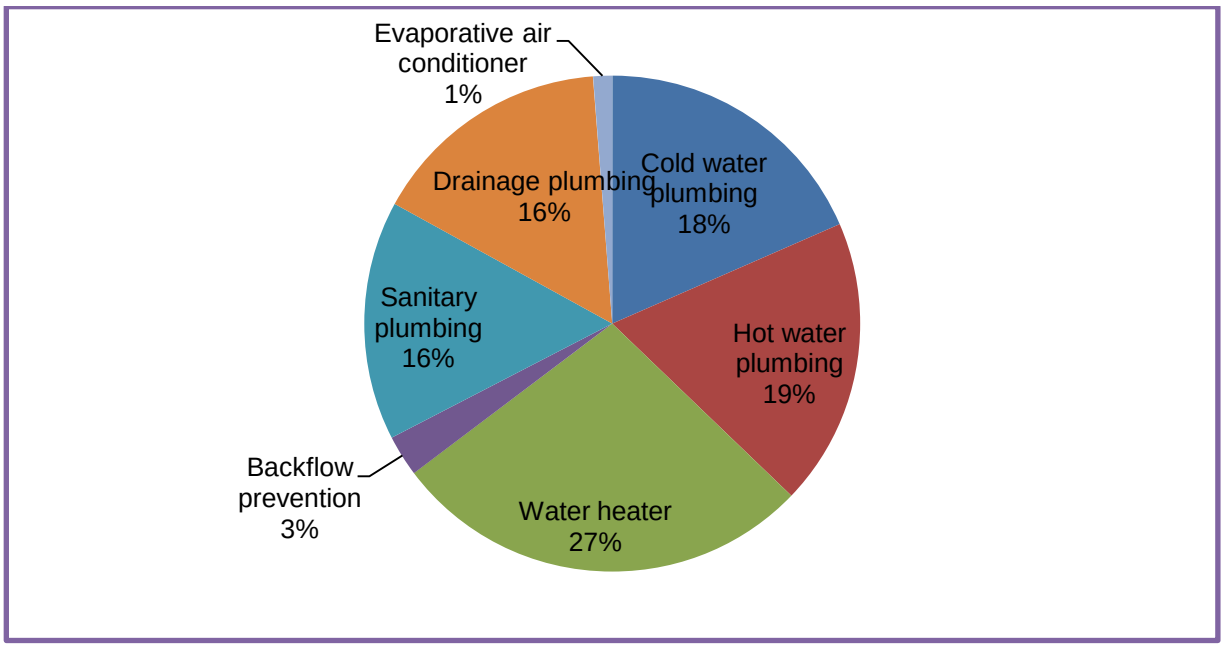
Table 2: Number of licence and permit holders from 2011 to 2017



Tables: End of financial year licensing figures. **Source:** The Department's Compliance and Licensing System

Work type

Currently, the type of plumbing work carried out by plumbers falls into three broad categories: water supply plumbing, sanitary plumbing and drainage plumbing. The following chart illustrates the breakdown by volume and is based on data for the year to 30 June 2017.



Compliance rates

Compliance audits

The Department undertakes an audit program that involves assessing a LPC's compliance with regulatory and notification requirements. A 2013/14 investigation into the level of compliance with the requirement to submit plumbing notices (i.e. notices of intention and certificates of compliance) identified 60 LPCs who were advertising for plumbing work but had submitted few, if any, plumbing notifications over the previous five years. As a result of that investigation, 20 warning letters and 35 infringement notices were issued, with over $44,000 in overdue fees for compliance certificates or installation fees collected. Since 2013/14, the Department has been active in trying to increase compliance with notification requirements.

Compliance inspections

During 2016/17, 5,017 inspections of plumbing installations were performed. Of these, 3,875 (or 77%) were found to be fully compliant with the applicable plumbing technical standards. In addition, 76 compliance audits of LPCs were undertaken. Only 12 were found to be fully compliant with all regulatory and notification requirements. In most instances, the non-compliance was due to a failure to submit at least one notice of intention/certificate of compliance. Thirty-four matters were referred to the Department's Enforcement Branch for investigation. Of those, 21 were for unlicensed plumbing work. The matters referred to the Enforcement Branch were dealt with via a caution or education. A further 111 matters led to infringement notices being issued, including 100 for failing to submit compliance certificates and 11 for unlicensed plumbing work.

1.2 Legislative review

On 19 June 2013, the then Minister for Commerce appointed ACIL Allen Consulting (ACIL Allen) to conduct an independent review of WA's plumbing regulatory framework. This followed various national developments affecting plumbing in the late 2000s, including the 2008 and 2009 agreements to consolidate building and plumbing standards into one uniform national code (the National Construction Code, or NCC) and put in place a National Occupational Licensing Scheme (NOLS)[3].

The aim of the ACIL Allen review was to assess the effectiveness of the current framework and recommend pathways for future regulation. In so doing, ACIL Allen examined the following broad topics:

- the objectives of plumbing regulation;
- the scope of matters controlled by plumbing regulation;
- the fit between plumbing regulation and other relevant controls;
- the institutional framework, including the roles of the Board, licensed water service providers, the Department of Water/Public Utilities Office, Energy*Safety* and the Building Commission;
- the arrangements to finance the administration of plumbing regulation;
- the technical standards that plumbers are required to follow, including relevant Australian Standards and the *Plumbing Code of Australia* (PCA);
- the notices and other communications by which plumbers inform authorities of intended and completed plumbing work; and
- the arrangements to protect consumers and the community, such as the plumbers licensing scheme and the 'statutory warranty scheme' for plumbing work.

On 8 November 2013, ACIL Allen presented its final report – "Review of Plumbing Regulations in WA" – to the then Minister for Commerce. After further consultation with key plumbing industry stakeholders, the report was made publicly available on 13 February 2014.

ACIL Allen's overarching conclusion was that the risk to public health of an unregulated or inadequately regulated plumbing industry is such that government intervention through regulation is justified. Their view, as expressed in Section 4 of Part I of their review report, was that:

> "without adequate plumbing regulation, public health would be placed at risk and ultimately suffer due to increased outbreaks of water-borne disease and through other problems arising from unsanitary and unsafe conditions."

[3] NOLS was ultimately abandoned by the Commonwealth in December 2013

1.3 Recommendations from the ACIL Allen review

ACIL Allen found that while wholesale change was not required, there were several areas where the current regulatory framework could be, "streamlined, made more efficient, or otherwise improved[4]".

ACIL Allen also identified areas where there was insufficient flexibility in the legislation and where unnecessary barriers to entry into the market had been embedded in the existing framework.

Further, ACIL Allen concluded that the compliance regime could be 'tightened' to increase its visibility and ensure that the chance that a particular plumbing installation will be inspected is the same regardless of whereabouts in WA it is located[5].

ACIL Allen's 51 recommendations for reform covered the following:

- amending the definition of regulated plumbing work to address identified gaps, introduce greater flexibility and enable the future needs of the plumbing industry and the community to be accommodated more easily;
- adoption of the PCA as the technical compliance standard for plumbing work in WA;
- retaining the status quo for the scope of work covered by a plumbing licence, but introduce more flexibility to expand or reduce that scope over time as necessary;
- ensuring that the model and method used for administering the plumbers licensing system is efficient, appropriate and consistent with modern approaches to government licensing structures and processes;
- revising the way the technical regulator is structured to ensure an appropriate, efficient and effective approach to the setting of technical standards and ensuring compliance with those standards; and
- implementing a more efficient and transparent model for funding plumbing regulation.

The full list of ACIL Allen's recommendations is provided in Appendix A of this CRIS. A copy of the ACIL Allen report is available from the Department's website at: www.dmirs.wa.gov.au/building-commission/plumbing-review.

1.4 Implementation of the ACIL Allen review recommendations

The regulatory impact assessment program

The Government is committed to ensuring that regulation delivers the best outcomes at the lowest cost to the community. To achieve this, a regulatory impact assessment (RIA) program is in place to ensure all new regulation is efficient and effective and addresses a clear and identifiable need in the community.

The RIA process also provides assurance to government and stakeholders that a rigorous and transparent assessment of the impacts has been carried out, and that effective and appropriate consultation has taken place.

[4] Section 1.4 of Part 1 of the ACIL Allen review report

[5] Point 6 on page vii of the ACIL Allen review report

In cases where policy proposals are likely to have a significant impact on industry, government and/or the community, a consultation regulatory impact statement (CRIS) is developed and released for public comment. A CRIS outlines the problems that need to be addressed, discusses the options available to resolve the problems, and looks at the potential impacts (both qualitative and quantitative).

The primary purpose of the CRIS is to seek public comment on the options and potential impacts so as to enable the Government to form a balanced and evidenced-based view on the best way to proceed. At the conclusion of the consultation process, the CRIS is finalised into a decision regulatory impact statement (DRIS) which analyses the impacts of the various options in the light of the comments received during the consultation period. Based on that analysis, conclusions are subsequently drawn and recommendations made as to the preferred options to be implemented to achieve the desired policy outcomes.

The reforms recommended by ACIL Allen ranged from relatively straightforward regulation amendments, to much more complex legislative reforms requiring a detailed impact analysis and a reshaping of the current approach to regulating plumbing work in WA under the *Plumbers Licensing Act 1995*.

The process for making amendments to Acts is much more complex than that for regulations as it involves not only the carrying out of a detailed impact assessment, but also the approval of State Cabinet and the drafting of an amendment Bill for introduction into State Parliament.

In order to progress the ACIL Allen reforms as efficiently as possible given the range of complexity and the additional assessment required for some of the recommendations, it was decided to adopt a staged implementation approach, with the more straightforward reforms being done first.

Several of ACIL Allen's 51 recommendations have therefore already been implemented via amendments made to the Plumbers Licensing and Plumbing Standards Regulations 2000 (Plumbing Regulations) during 2015 and 2016. They include the following:

- The adoption of the PCA as the compliance standard for water supply plumbing, sanitary plumbing and drainage plumbing in WA.
- The introduction of a 'provisional plumber's licence' for overseas-trained plumbers to enable experienced migrant plumbers to receive supervised on-the-job training while undertaking their 'Western Australian context training'.
- Extending the list of 'Disciplinary Matters' in the Plumbing Regulations to include, among other things, cases where the licensee or permit holder:
    - has been convicted of a serious offence;
    - has engaged in conduct that is harsh, unconscionable, oppressive, misleading or deceptive in relation to the carrying out of plumbing work; or
    - has been negligent or incompetent in the carrying out of plumbing work.
- Amendments to the disciplinary and enforcement processes for licensed plumbers, including enabling the Board to determine minor disciplinary matters itself rather than having to refer matters to the State Administrative Tribunal (SAT) for determination.

- Introducing greater flexibility around the Board's power to designate suitably skilled public servants to be plumbing inspectors.
- Giving inspectors the power to issue infringement notices in cases where unlicensed plumbing work has been carried out (previously, the only option was prosecution).
- Increasing the amount of the infringement notice penalty for specific offences, including failing to provide notices of intention or compliance certificates within the prescribed time limits.
- Enabling suitably qualified environmental health workers to carry out minor plumbing repairs in emergency situations in remote Aboriginal communities that do not have ready access to a licensed plumber.

Next steps

This CRIS discusses options for the remaining ACIL Allen recommendations. It has been prepared in accordance with the Government's regulatory gatekeeping requirements, and is based on the findings of the ACIL Allen review. It also includes proposals for reviewing other areas of the legislative framework.

As part of the regulatory assessment process, consulting firm Marsden Jacob and Associates (Marsden Jacob) was engaged to conduct an economic analysis of the costs and benefits of the various reform proposals deemed likely to have a significant impact on industry, government or the community.

Marsden Jacob completed its analysis in September 2017. The findings and conclusions from that analysis are incorporated into the discussion in Chapter 4 of this CRIS. A copy of Marsden Jacob's final report is attached at Appendix B.

1.5 How to have your say

This CRIS highlights a range of proposals and options for consultation with stakeholders. A number of questions are included in Chapter 4 of the CRIS. These questions are aimed at making it easier for stakeholders to make a submission. It is not expected that all respondents will consider all proposals and options. Please feel free to focus only on those areas that are important and relevant to you.

There is no specified format for providing comment, although respondents are requested to respond directly to the consultation questions outlined in Chapter 4 where possible. Please do not feel constrained by the questions or feel obliged to answer all of the questions.

You are welcome to suggest alternative options for addressing matters of concern to you. It would be helpful if you could include the reasons behind your suggestions as this will help the Government to better understand your viewpoint and will also assist in identifying the most suitable options for reform. For example, you could couch your suggestion as follows: "I think that the alternative option of …… should be considered as this would be more effective in addressing this issue for the following reasons ……."

Wherever possible, please provide evidence to support your views, by including relevant statistics, examples or case studies. If possible, please provide estimates of any costs associated with specific options, for example compliance costs related to particular proposals. This information will greatly assist in assessing the various options for reform.

An online form in a MS Word format seeking feedback on the key reform proposals is also available on the Department's website at www.dmirs.wa.gov.au/building-commission/plumbing-review

The Department will also be holding a series of consultation sessions to enable stakeholders to provide their feedback on a face-to-face basis. Information on the consultation sessions is available on the Plumbing Review website at:
www.dmirs.wa.gov.au/building-commission/plumbing-review.

Written submissions can be emailed to plumbingreview@dmirs.wa.gov.au or posted in hard copy to the following address:

Plumbing Review Team
Building and Energy Division
Department of Mines, Industry Regulation and Safety
Locked Bag 14
CLOISTERS SQUARE WA 6850

Closing date

The closing date for providing comment on this CRIS is **Tuesday 31 July 2018.**

How input will be used

The Government will give careful consideration to all the information gathered through this consultation process and will publish a DRIS outlining its final policy position.

Information provided may become public

After the consultation period concludes, all responses received may be made publicly available on the Department's website. Please note that because your feedback forms part of a public consultation process, the Government may quote from your comments in future publications. If you prefer your name to remain confidential, please indicate this in your submission.

As all submissions made in response to this paper will be subject to freedom of information requests, please do not include any personal or confidential information that you do not wish to become available to the public.

02 Current legislative framework

The *Plumbers Licensing Act 1995* (the Plumbing Act) and the Plumbing Regulations prescribe the requirements for plumbers and plumbing work in WA.

The Plumbing Act establishes the composition, functions and powers of the Board, the scope of regulated plumbing work, and the matters about which regulations may be made. The Plumbing Regulations set out the detailed requirements pertaining to the licensing of plumbers, the technical standards to be observed in the carrying out of plumbing work, the compliance and enforcement regime, and the operation and proceedings of the Board.

2.1 Scope of regulated plumbing work

Section 59I of the Plumbing Act defines plumbing work for the purposes of both licensing and the application of the technical standards as:

> "work of a kind specified to be water supply plumbing, sanitary plumbing or drainage plumbing."

The term *'specified'* means specified in regulation 4 of the Plumbing Regulations, which reads as follows:

(a) water supply plumbing work is work, other than exempt work, that involves the installation, alteration, extension, disconnection, repair or maintenance of pipes and other fittings used or intended to be used for the supply of potable water from a meter assembly to the points of use within any property;

(b) sanitary plumbing work is work, other than exempt work, that involves the installation, alteration, extension, disconnection, ventilation, repair or maintenance of fittings and fixtures used or intended to be used for the carrying of wastewater or other waste, but does not include drainage plumbing work;

(c) drainage plumbing work is work, other than exempt work, that involves the installation, alteration, extension, disconnection, repair or maintenance of underground pipes and other fittings used or intended to be used for the carrying of —

  (i) wastewater to a sewer; or

  (ii) wastewater or other waste to an apparatus for the treatment of sewage.

The terms *'exempt work'*, *'fitting'* and *'fixture'* are defined in regulation 3 of the Plumbing Regulations as follows:

> ***exempt work*** means work carried out by or on behalf of a water services provider in connection with the undertaking, maintenance or operation of water services works of the water services provider. (Essentially, this means that the service provider's water supply, sewerage and drainage infrastructure up to the point of connection to a property is not covered under the Plumbing Act.)

fitting means a pipe, cistern, meter, trap, syphon, manhole, ventilator and any other apparatus connected with and part of water supply, sanitary or drainage plumbing.

fixture includes any apparatus that is designed to collect, pump, receive or retain, and discharge, wastewater into sanitary or drainage plumbing, for example, a water-closet pan, urinal, bath, sink, basin, trough or pump.

In developing the Plumbing Act and Plumbing Regulations, the government of the day sought to differentiate between what is generically referred to as 'internal plumbing' (i.e. the pipes, fixtures and fittings within the boundary of a property) and what is referred to as 'water services works' (i.e. the water/wastewater infrastructure serving a property and which is owned/operated by the water/wastewater service provider).

'Internal plumbing' falls within the jurisdiction of the Plumbing Act, whereas water/wastewater service infrastructure is generally covered under the *Water Services Act 2012* (Water Services Act) administered by the Department of Water and Environmental Regulation.

2.2 Licensing regime for plumbing

Under regulation 4 of the Plumbing Regulations, work that falls within the definition of 'water supply plumbing', 'sanitary plumbing' or 'drainage plumbing' can only be carried out by a person who holds a licence issued by the Board.

This means that any work on pipes, fittings and fixtures that supply drinking water or convey wastewater is, broadly speaking, regulated plumbing work that can only lawfully be carried out by a Licensed Plumbing Contractor (LPC) or a Licensed Tradesperson under the general direction and control of a LPC.

Apprentice plumbers, and authorised environmental health workers doing permitted work in remote Aboriginal communities, are exempt from this requirement.

Under the current licensing regime, licences and permits can only be issued to individuals, not business entities. In cases where a business entity, such as a kitchen or bathroom renovation company, contracts with a client, it is the individual plumber, not the business entity, who is responsible for the plumbing aspects of the work under the contract.

Categories of plumbing licence

Under regulations 11, 12 and 13A of the Plumbing Regulations, three categories of plumbing licence and one category of plumbing permit can be issued by the Board. These are listed below.

(i) Plumbing contractor's licence

This category authorises the holder (i.e. a LPC) to carry out any plumbing work specified in the licence; exercise general direction and control over other LPCs and tradesperson plumbers; and supervise apprentices and holders of a provisional plumbing licence.

There are several types of plumbing contractor's licence[6]. These are:

(a) water supply, sanitary and drainage plumbing licence (in effect, a 'full' licence.)
(b) water supply and sanitary licence
(c) water supply and drainage licence
(d) water supply licence
(e) drainage licence
(f) sanitary and drainage licence

(ii) Tradesperson's licence

This category generally applies to those who have just completed their plumbing apprenticeship or who work for an LPC. The licence authorises the holder to carry out the work specified in the licence (provided it is carried out under the general direction and control of a LPC) and to supervise apprentices and holders of a provisional plumbing licence in the carrying out of plumbing work.

(iii) Provisional tradesperson's licence

This category is available to migrant plumbers who have completed their plumbing qualifications overseas but wish to work as plumbers in WA. This category of licence authorises the holder to carry out the work specified in the licence under the supervision of a LPC or a tradesperson plumber while undertaking the necessary Australian context training. This licence is converted to a tradesperson's licence (upon application) once the holder has satisfied all the training requirements.

(iv) Restricted plumbing permit

The only category of permit currently available is a restricted plumbing permit (RPP). This is available to licensed electricians and holders of a gasfitting permit. A RPP authorises the holder to perform limited plumbing work in association with removing a water heater; removing and reinstalling a water heater; or replacing a water heater on a like-for-like basis. (Note: a reciprocal arrangement applies to licensed plumbers under the Electricity (Licensing) Regulations 1991.)

Process for granting a licence or permit

To be granted a licence or permit, the Board must be satisfied under regulation 17 of the Plumbing Regulations that:

- the prescribed fee has been paid;
- the applicant is a fit and proper person; and
- the applicant satisfies the training and qualification requirements set out in Schedule 3 of the Plumbing Regulations.

A licence or permit may be subject to conditions set by the Board (regulation 19) and, with the exception of the provisional licence class, is issued for a maximum period of three years (regulation 21). A renewal process is established in regulations 20 and 20A. A provisional licence is valid for one year only and may only be renewed once, at the discretion of the Board (regulations 20 and 20A).

[6] An unlicensed entity is also permitted to contract with a customer to provide plumbing services but the actual plumbing work must be done by a licensed plumber. This is covered in more detail in the discussion in section 3.2.2 of this CRIS.

A number of other requirements also apply to licence and permit holders, including that the licence or permit cannot be used by others (regulation 23) and that licence numbers must be displayed in advertising (regulation 25) and on business documents (regulation 25A).

Powers to take disciplinary action against licensees and permit holders

An important part of the licensing framework is the capacity to take disciplinary action against licensees and permit holders when necessary. Regulation 27 prescribes what constitutes a disciplinary matter. The process for making, considering and determining complaints about such matters is set out in regulations 28 to 34.

As outlined in section 1.4 above, the Board's powers in relation to disciplinary matters were recently broadened in accordance with recommendations made in the ACIL Allen review. In addition, the disciplinary framework has been aligned much more closely with that contained in the building industry legislation (which is also administered by the Department).

As a consequence of those changes, the Board now has the power to determine certain disciplinary complaints itself rather than having to refer all matters to the SAT for determination. In such cases, the Board can impose minor sanctions in accordance with regulation 31. The more serious sanctions, such as suspensions or cancellations of licences, can only be imposed by the SAT.

2.3 Compliance with technical standards

Since 1 May 2015, the Plumbing Regulations have called up the PCA as the primary technical standard for plumbing and plumbing work in WA.

The PCA came into existence in its current form in 2011 and forms part of the National Construction Code (NCC). The NCC was developed following an agreement by the Council of Australian Governments (COAG) in 2008 to implement a single national code prescribing the minimum technical standards for on-site building, plumbing, telecommunications and electrical work. Currently, the NCC comprises three volumes. Volumes 1 and 2 jointly form the Building Code of Australia. Volume 3 is the PCA.

The adoption of the PCA in 2015 ensures that the technical requirements for plumbing work in WA are consistent with the rest of Australia.

The technical rules set out in the PCA are largely based on the relevant Australian Standards, principally AS/NZS 3500 – Plumbing and Drainage, and thus are much the same as the technical standards that applied in WA prior to the introduction of the PCA.

However, the PCA did introduce new concepts previously unfamiliar to Western Australian plumbers. The most significant of those is the ability for plumbers to design and install 'Performance Solutions'.

In essence, a Performance Solution is a solution that may depart in some way from an Australian Standard or other document referenced in the PCA but which has been assessed as still meeting the mandatory performance requirements.

The Board also has the power to modify (upon application) a plumbing technical standard or declare a standard to be not applicable, provided it is in the public interest and would not result in an increased risk to people, property or the environment.

The technical standards for plumbing and plumbing work, together with the work-related requirements that plumbers must adhere to in carrying out such work, are prescribed in Part 6 of the Plumbing Regulations.

2.4 Compliance regime for plumbing work

Before 2000, when the plumbing legislation was administered by the Water Corporation, compliance was monitored through a system of inspection which relied on a team of around 40-50 inspectors. Under that system, Water Corporation inspectors inspected every new drainage plumbing installation.

Over time, with population growth and increases in the volume of work undertaken in the industry, it became evident that a system of inspection involving the inspection of all work was no longer sustainable.

A program of deregulation ensued and the responsibility for ensuring compliance with the appropriate technical standards was placed more clearly on individual plumbers through a self-certification system.

When the current framework for plumbing regulation in WA was developed in the late 1990s, there was a deliberate move towards an even greater level of self-regulation and industry accountability. However, it was acknowledged that a degree of oversight and an inspection system driven by risk categorisation would still be required.

Evidence gathered by plumbing inspectors over the past few years shows that a well-targeted program of physical inspections is still crucial to the effective operation of the self-certification system.

Compliance notification

When the Board assumed responsibility in 2004 for the regulation and control of plumbing work and the technical standards to be observed in the carrying out of such work, a notification and self-certification process was embedded into the regulatory framework.

This is detailed in Part 5 of the Plumbing Regulations and requires LPCs to notify the Board of ‘major plumbing work’ (as defined in regulation 3) at least 24 hours prior to the work commencing. After completing the work, the LPC must submit a Certificate of Compliance (COC) to the Board to confirm that the work has been completed in accordance with the requirements of the Plumbing Act and Plumbing Regulations. The COC must be submitted to the Board within five working days of completing the work. A copy must also be provided to the LPC’s client.

For ‘minor plumbing work’ (which is also defined in regulation 3 of the Plumbing Regulations), no prior notification or individual certification is required. However, all such work must be recorded on a ‘multi-entry certificate’ which must be lodged with the Board within five working days after the end of each month.

Enforcing compliance

Under the current regime, plumbing inspectors are designated by the Board. They have the power to undertake compliance audits and general inspections of all plumbing work.

A compliance audit is carried out in relation to a specific licensed plumber and will check that he or she is complying with his or her obligations under the Plumbing Act and Plumbing Regulations. Compliance audits may lead to disciplinary proceedings.

General inspections are carried out on plumbing installations to ensure work complies with the legislation and has been done to the prescribed technical standards and to a trade finish.

If a plumbing inspector is not satisfied with the plumbing work undertaken he or she may issue a rectification notice requiring the plumber to rectify the work. Rectification notices can be issued for work completed within the previous six years. In certifying his or her work via the compliance notification process, the LPC essentially guarantees that work for a period of six years from the date the COC was issued.

2.5 Funding plumbing regulation

The costs of regulating the work carried out by licensed plumbers in WA is paid for via compliance notification fees and fees for installations of sanitary fixtures in new buildings (referred to as ‘fixture fees’). Although these fees are paid by LPCs, the cost is effectively passed on to consumers.

The current funding arrangements were implemented in the early 2000s based on a model from the Water Corporation which treated every additional plumbing fixture as an extra load on Water Corporation infrastructure. As is shown in section 4.1 of this CRIS, this model has now become out-dated, inefficient and in clear need of reform.

03 Recommendations from the ACIL Allen review

Introduction

As detailed in Chapter 1 of this CRIS, ACIL Allen concluded that the risk to public health of an inadequately regulated plumbing industry is such that government intervention is warranted.

Although ACIL Allen did not find WA's plumbing regulatory framework to be in need of wholesale change, the review did identify areas where improvements could be made. As previously mentioned, some of the improvements suggested by ACIL Allen have already been implemented. This Chapter deals with the remaining recommendations from the ACIL Allen review.

3.1 The regulatory definition of plumbing work

ACIL Allen's first step in conducting its review of the regulatory framework for plumbing in WA was to identify what a best practice regulatory regime for plumbing should seek to achieve. ACIL Allen's conclusion was that an appropriate objective for plumbing regulation in WA should be to:

> "Protect the long term interests and health of Western Australians with respect to the safety of the water supply and wastewater removal system by ensuring that plumbing work is performed in accordance with technical requirements appropriate for available technologies by sufficiently skilled persons." [7]

It follows that in order to meet that objective, the legislation must contain a clear and easily-understood definition of what 'plumbing work' is.

ACIL Allen identified several issues with the current definition of 'plumbing work' in both the Plumbing Act and the Plumbing Regulations. These are explained in paragraphs (a) and (b) below.

(a) Issues with the definition of 'plumbing work' in the Plumbing Act

Currently, the Plumbing Act limits the scope and application of the plumbing legislation in WA to three specific branches of plumbing:

- water supply;
- sanitary; and
- drainage.

There is no legislative power in the Act to extend the application of the plumbing laws to cover any other branch of plumbing. This has hindered efforts to ensure WA's plumbing legislation can adapt to trends and advances in the plumbing industry.

[7] ACIL Allen Report p. vi

ACIL Allen's review identified that the inflexibility of the current definition of 'plumbing work' in the Act was a key issue requiring reform and suggested that any new definition should be broad so as to:

- extend the *potential* (but not necessarily the *actual*) reach of the regulatory regime beyond the current scope;
- remove the identified difficulties with the current definition of 'plumbing work';
- allow the flexibility to address problems that may be identified in the future; and
- clarify the application of the plumbing laws in relation to greywater, rainwater and non-potable recycled water. [8]

Based on those broad principles, ACIL Allen suggested that the new definition could be framed in one of two ways:

i. by adopting a broad task-based definition, such as:

> "*The installation, alteration, extension, disconnection, repair or maintenance of pipes, fixtures and fittings to carry water, wastewater and other wastes between equipment owned and operated by a water service provider and a point of use*" [9], with further specific detail prescribed in the Plumbing Regulations; or

ii. by adopting a model similar to that used in Victoria, whereby the meaning of 'plumbing work' is not included in the principal Act but is instead dealt with by listing generic branches of plumbing in a definition of 'plumbing work' in the regulations, with further detail provided in specific chapters devoted to each branch of work.

ACIL Allen did not, however, come to any view as to which of those two approaches was preferable.

(b) Issues with the definitions of 'plumbing work' in the Plumbing Regulations

ACIL Allen highlighted shortcomings in the way 'water supply plumbing work' is defined in regulation 4 of the Plumbing Regulations. They also found evidence of misunderstanding within the industry about the current definitions of 'sanitary plumbing work' and 'drainage plumbing work'. In addition, ACIL Allen identified the demarcation between 'plumbing work' covered by the Plumbing Act and 'exempt work' covered by the Water Services Act as an area that required clarification. Each of these issues is discussed under separate headings below.

Water supply plumbing

The key problem identified by ACIL Allen in relation to the current definition of 'water supply plumbing work' in regulation 4 was the reference to 'a meter assembly'. ACIL Allen pointed out that although the words 'a meter assembly' were likely to have been chosen as a way of differentiating between the water network infrastructure operated by water utility companies, and the plumbing infrastructure located within a property's boundary, its practical effect had been to exclude the numerous water supply systems which are unmetered, at least at the boundary between the shared network and the customer's plumbing system. These arrangements are common in smaller towns, some Aboriginal settlements, mining camps and rural properties.

[8] Section 2.4 of Chapter 2 of Part II of the ACIL Allen Report

[9] P. 49 of the ACIL Allen Report

This means that work to install, alter, extend, disconnect, repair or maintain pipes or other fittings used or intended to be used for the supply of unmetered drinking water is not currently covered by the plumbing legislation. Accordingly, such work does not have to be carried out by a licensed plumber and does not need to comply with the technical standards for water supply plumbing work.

ACIL Allen concluded that not only did the reference to 'a meter assembly' not necessarily achieve the differentiation that was originally intended, but it was also illogical given that the public health risks are the same whether the water supply is metered or unmetered.

The ACIL Allen review also highlighted issues with the use of the term 'potable water' in the definition of 'water supply plumbing". In particular, it found that the definition caused confusion about whether work on urban irrigation systems (i.e. garden reticulation) is 'plumbing work' and hence whether such work must only be carried out by licensed plumbers.[10]

While ACIL Allen did not put forward a suggested new definition for 'water supply plumbing', they did suggest that the current meaning of that term in the Plumbing Regulations be altered to remove the reference to a meter assembly and provide greater clarity and certainty about the scope of water supply plumbing work.

Sanitary plumbing and drainage plumbing

In examining the reasons for the misunderstandings around the precise meanings of sanitary plumbing and drainage plumbing, ACIL Allen again drew the conclusion that the current meanings of those terms (as contained in regulations 4(1)(b) and 4(1)(c) of the Plumbing Regulations) should be made clearer. However, as with water supply plumbing, they did not go on to suggest an alternative definition for either term.

Plumbing work that is outside the scope of the plumbing laws (exempt work)

As per the current definitions in regulation 4 of the Plumbing Regulations, work carried out by or on behalf of a water services provider in connection with the undertaking, maintenance or operation of the water services works of the water services provider is outside the scope of the plumbing laws and is instead regulated under the *Water Services Act 2012*.

ACIL Allen commented on the demarcation between 'plumbing work' (i.e. work to which the plumbing legislation applies) and 'exempt plumbing work' (i.e. work to which the water services legislation applies), saying that the distinction between the shared water network and private plumbing should be retained, but with a clearer description of the precise point at which the water utility's network stops and the customer's system starts.[11]

Urban irrigation (garden reticulation)

ACIL Allen found there was confusion among industry participants about whether garden reticulation work is plumbing work to which the plumbing legislation applies.

In this context, ACIL Allen defined such work as the business of installing fixtures and fittings for watering home gardens and similar, noting that, by and large, such work is not generally done by licensed plumbers.

[10] Section 2.1.2 of Part II of the ACIL Allen Report

[11] Section 2.1.1. of Part II of the ACIL Allen Report

ACIL Allen formed the view that the 'cutting in' of the backflow prevention valve as part of the work to install a garden reticulation system should rightly be licensed plumbing work, but any work downstream of that valve could be done safely without the specialist expertise of a licensed plumber. ACIL Allen also noted that the same conclusion had been reached in the DRIS for the National Occupational Licensing Scheme published in 2009.

The Department has met with representatives from the Greywater and Wastewater Industry Group (GWIG) who share the view that the current ambiguity around whether garden reticulation work is or is not licensed plumbing work needs to be resolved. However, GWIG has a different view about how that should be achieved. This is discussed further in section 4.2.5.

Basic plumbing work carried out by private homeowners

ACIL Allen noted that WA is the only state in Australia where the legislation prevents private homeowners from carrying out basic plumbing repairs in their own homes.

In WA, it is currently illegal for a homeowner to do simple things like replace a tap washer or a shower head. However, the Board has used its discretionary powers to adopt a non-prosecution policy in such cases.

ACIL Allen concluded that this was an area that should be addressed as part of the reform of the plumbing laws, and identified the following four possible approaches to amending the legislation:

i. Introduce changes to the licensing regime to provide that such tasks are subject to the technical standards in the plumbing laws but not the licensing requirements in cases where the work is carried out by the owner occupier or by someone engaged by the owner occupier **for no payment or other consideration**.

ii. Introduce changes to the licensing regime to provide that such tasks are subject to the technical standards in the plumbing laws but not the licensing requirements in cases where the work is carried out by the owner occupier or by someone engaged by the owner occupier, **regardless of whether the work is done for payment or any other consideration**.

iii. Introduce provisions to 'carve out' such tasks both from the technical standards ***and*** the licensing requirements in cases where the owner occupier carries out the work or someone engaged by the owner occupier does so **for no payment or other consideration**.

iv. Introduce provisions to 'carve out' such tasks both from the technical standards ***and*** the licensing requirements in cases where the work is done either by the owner occupier or by someone engaged by the owner occupier, **regardless of whether or not the work is done for payment or for any other consideration**.

Options i. and ii. above would mean that although the work is no longer licensed work, the technical standards would still apply. For example, if the work consisted of replacing a shower head, the new shower head would still need to comply with the *WaterMark Certification Scheme*[12] for plumbing and drainage products, as required by Part G of the PCA.

[12] The WaterMark Certification Scheme is a national scheme that ensures specified plumbing products are fit for purpose, appropriately tested, and authorised for use in Australian plumbing installations.

Option iii. would remove the work from both the licensing and the technical standards so long as the work is done either by the owner-occupier or by someone he or she engages to do the work without payment or reward (e.g. a family member or a friend who does the work as a favour). In the shower head example used above, this would mean that a non-WaterMark certified product could be legally used. Moreover, there would be no control over the quality of the work done.

Option iv. would not only remove the work from both the licensing and the technical standards requirements, but would also open up the market to people such as commercial handymen or property maintenance contractors. Again there would be no control over the quality or appropriateness of the plumbing product used or the manner in which the work is performed.

ACIL Allen did not evaluate each option or recommend which of the four should be adopted. However, it expressed the view that if simple plumbing tasks were to be 'carved out' of the plumbing regulatory regime entirely (i.e. if option iv were to be implemented), this would:

> *"provide the greatest benefit to Western Australians because it would maximise their freedom to choose."* [13]

3.2 The licensing regime

The importance to public health of having a clean, safe and reliable drinking water supply and an effective system for collecting and conveying sewage are such that all Australian jurisdictions require those who perform plumbing and sanitary drainage work to be licensed to do so.

ACIL Allen found no evidence to suggest there was a 'problem' with the current licensing regime in WA,[14] but did make several recommendations to improve the efficiency of the system. ACIL Allen also recommended introducing greater flexibility into the regulatory framework to enable government to respond more rapidly to changes in the industry over time.

WA, like other jurisdictions, currently has what is referred to as a 'vertical separation' approach to plumbers licensing that classifies licensees as either tradespersons or contractors. ACIL Allen concluded that while the vertical separation approach to licensing plumbers should be retained[15], greater flexibility ought to be introduced into the regime to enable future changes to be made as and when needed[16].

Specifically, ACIL Allen expressed the view that the licensing authority should have the ability to introduce or remove licensing requirements for different branches of plumbing as and when appropriate. They referred to this as 'horizontal separation' and suggested that such an approach would give the licensing regime the flexibility to adapt to:

- the different risks involved in different branches of plumbing work; and
- other circumstances that may arise from time to time.

[13] p. 57 of the ACIL Allen report

[14] ACIL Allen Report p. vii

[15] Section 4.1 of Part II of the ACIL Allen report (p.51)

[16] Section 4.4 of Part II of the ACIL Allen report (p.59)

However, this was heavily qualified by the caveat that such discretion should be accompanied by a requirement that the licensing authority must:

- provide evidence for any such changes to the scope of the licensing regime before making them; and
- have regard to the costs and benefits of any such changes.

This caveat mirrors the principles of best practice regulation that are embedded in WA's regulatory impact assessment process.

Summary of ACIL Allen's recommendations for reforming the licensing scheme

ACIL Allen made a number of recommendations about reforming the plumbers licensing scheme. As outlined in section 1.4 of this CRIS, some of those recommendations have already been implemented. Those that remain to be dealt with are listed below.

(a) Introduce the capacity for particular branches of plumbing work to be 'carved out' from the licensing requirements where deemed appropriate.

(b) Ensure the regulatory framework gives the licensing administrator the capacity to authorise (or license) suitably-qualified designers to verify *Performance Solutions* under the PCA. In addition, ensure that the liability for any failure in the design of a Performance Solution rests with the designer, not the installing plumber.

(c) Allow non-plumbers and non-plumbing companies to operate a plumbing business (Note: the person doing the actual plumbing work would still need to be appropriately licensed.)

(d) Remove the requirement that the holder of a plumbing contractor's licence must undergo business training; and introduce a mandatory requirement that they carry liability insurance.

(e) Remove the "fit and proper person" test for prospective licensees and permit holders, and replace it with a list of factors that would disqualify a person from obtaining (or renewing) a licence or permit.

(f) Ensure the licensing scheme is constructed on a "shall issue" basis rather than the current "may issue" basis.

Of the above list, items (a) and (b) are discussed in more detail in Chapter 4 of this CRIS. Items (c) to (f) are discussed under separate headings below.

Operating a plumbing business

In their review report, ACIL Allen indicated that during the various consultation sessions it had conducted, it had been pointed out that the current licensing framework for plumbing does not permit corporate structures such as licensed plumbing companies or partnerships[17]. This view appears to have been based on the fact that under regulation 14 of the Plumbing Regulations, plumbing licences can only be issued to natural persons, not business entities.

[17] Section 4.1.1 of the ACIL Allen report (p. 52)

ACIL Allen questioned the desirability of preventing corporate structures in the plumbing industry and saw no reason why a plumbing business could not be operated by a non-plumber, provided that the person carrying out the plumbing work for the business is appropriately licensed to do so. ACIL Allen's view was that the current arrangement in WA represents an unnecessary barrier to entry to the plumbing industry and should be removed.

Expanding the regulatory regime to include a class of plumbing licence for companies and partnerships in addition to the existing 'natural person' class would also provide greater transparency for the consumer. This is because it would address the anomaly that currently arises in cases where a company that is not operated by a licensed plumber contracts with a customer to carry out building work that incorporates an element of plumbing work. For example, a bathroom or kitchen renovation.

In such cases, the way the plumbing legislation is currently structured means that the building company must sub-contract out the plumbing work to a licensed plumbing contractor who is then not only required to ensure the work complies with the legislative requirements but must also take liability for any issues with the work for the next six years (or longer in certain cases).[18] At no stage does the statutory liability for the plumbing work transfer to the building company, even if the plumber disappears or passes away.

This can create issues for the building company and/or the company's customer in cases where a plumbing inspector subsequently finds the plumber's work to be sub-standard or faulty and in need of rectification. While there are avenues available for the customer to seek redress either through the courts or by making a complaint to the Department, those actions cannot succeed unless the person who actually carried out the plumbing work can be identified.

ACIL Allen recommended that the plumbing laws be amended to introduce a corporate licensing structure similar to that which had been proposed under NOLS. Under that proposal, any company or partnership could apply for a plumbing licence provided that they could identify someone within the business to be their 'nominee'.

The nominee had to be the holder of a valid plumbing contractor's licence **and** occupy one of the following roles in the business:

- In the case of a body corporate or a partnership involving a body corporate – a director or employee.
- In the case of a partnership involving individuals – a partner or an employee
- In the case of an individual (sole) trader – an employee.

NOLS proposed to establish a link between the nominee and the business so that it could be readily determined which person within the business had ultimate responsibility for ensuring compliance with the plumbing laws. As was pointed out in the DRIS for the NOLS proposal, it can be far more difficult to establish responsibility for breaches where a licence holder who performs the work has no ongoing link to the business that has contracted for the work as it can be hard to locate and contact the licence holder, particularly when a large company is involved.[19]

[18] Under regulation 71 of the Plumbing Regulations, a rectification notice can be issued to a licensed plumbing contractor at any time during the 6 years following the completion of the plumbing work. If a rectification notice is issued in that period, a further 6 year 'warranty' period commences from the time that notice is given.

[19] P. 50 of the Decision Regulation Impact Statement on the Proposal for national licensing of the plumbing and gasfitting occupations. (ISBN 978 1 921916 11 3)

ACIL Allen saw no reason why the NOLS approach could not work in WA and no reason why a plumbing business could not be operated by a non-plumber.

Accordingly, they recommended that the NOLS 'nominee model' be adopted in WA's plumbing laws.

Business training and indemnity insurance for 'natural person' licensed plumbing contractors

Linked to the discussion about the relative merits of introducing a corporate licence for plumbing contractors is the question of whether self-employed 'natural person' licence holders should be required to complete business training as part of the criteria for obtaining their licence.

To qualify for a plumbing contractor's licence under the current arrangements, a person must (among other things) complete three specified business units of competency. One unit is taken from the Business Services Training Package and two are from the Construction, Plumbing and Services Training Package.

ACIL Allen took the view that including business training in the eligibility requirements for a plumbing contractor licence was an unnecessary barrier to entry into the industry and should be removed. ACIL Allen's opinion was that business skills are not a relevant consideration in the context of public health and thus should not be a condition for obtaining a plumbing contractor's licence. If a person chooses to start a business, it should be left to that person, not the government, to decide what training he or she needs to undertake before doing so.[20]

However, ACIL Allen did note that, unlike Victoria, WA does not require LPCs to carry indemnity insurance. ACIL Allen saw mandatory public liability insurance and professional indemnity insurance as a useful consumer protection measure and recommended that it be introduced in WA[21].

The 'fit and proper person' test

It is common for occupational licensing schemes to include a 'fit and proper person test' as part of the eligibility requirements for obtaining a licence. The licensing scheme for plumbers in WA is no different[22]. However, as the term 'fit and proper' is not defined in the Plumbing Regulations, it leaves it to the Board to determine how to assess whether an applicant meets that test.

ACIL Allen criticised the lack of a clear definition of what constitutes 'fit and proper', saying the current catch-all approach was too loose, outdated and procedurally unfair due to its subjectivity. They therefore recommended that the term 'fit and proper' be replaced by a list of factors that would disqualify a person from holding a plumbing licence or permit. However, they said those factors should be limited to those necessary to achieve the objective of plumbing regulation (i.e. protecting public health), not arbitrary judgements about a person's character[23].

[20] Section 4.1.2 of Part II of the ACIL Allen report (p.52)

[21] ibid

[22] Regulations 17(1)(a) and 20(1) of the Plumbing Regulations

[23] Section 4.2 of the ACIL Allen Report (p.53)

In the period since the publication of the ACIL Allen Report, the Department has developed a policy for assessing 'fit and proper' that is common to all the licensing categories for which the Department is the licensing administrator. As this includes plumbing, it is the view of the Department that the lack of clarity identified by ACIL Allen has now been addressed and that no further action is required in relation to this recommendation.

Issuing licences on a 'shall issue' basis

The way regulation 17 is currently worded allows the Board discretion not to issue a licence or permit even though all of the pre-requisites have been met. This is because of the use of the words "The Board ***may*** issue…." in the opening sentence of regulation 17.

ACIL Allen's view was that this discretion should be removed such that if (in the opinion of the Board) an applicant meets all of the pre-requisites set out in the Plumbing Regulations, the Board must issue the licence or permit. The Department sees no reason why this recommendation should not be adopted.

Other licensing matters not specifically covered in the ACIL Allen review

In addition to the recommendations made by ACIL Allen, there are two further issues that need to be considered as part of the process to reform the licensing framework for plumbing.

The first issue relates to the scope of work permitted to be carried out by the holder of a restricted plumbing permit (RPP). The second issue relates to the transition arrangements for graduating plumbing apprentices who wish to apply for their tradesperson's licence.

Scope of work under a restricted plumbing permit

Regulation 13A of the Plumbing Regulations allows licensed electricians and holders of a gasfitting permit to apply for a RPP to carry out like-for-like replacements of water heaters. This is part of a reciprocal arrangement between the plumbing and electrical trades to ensure that consumers only have to seek the services of one tradesperson, not two, when having a water heater replaced on a like-for-like basis.

Progressive changes in installation methods for water heaters have rendered RPPs impractical in many circumstances. As such, it is appropriate to review the scope of work listed in regulation 13A to ensure it continues to accurately reflect the original policy intent. This is discussed in more detail in section 4.3.5.

Apprentices

To become a licensed plumber, a person must hold a Certificate III in Plumbing issued by a Registered Training Organisation (RTO) and have successfully completed a plumbing apprenticeship under a training contract.[24]

Regulation 3 of the Plumbing Regulations defines an 'apprentice' as "a person who is an apprentice under a training contract registered under the *Vocational Education and Training Act 1996* Part 7 Division 2".

[24] Schedule 3, Division 2, item 3 of the Plumbing Regulations

Apprentices who meet that definition are legally permitted to carry out plumbing work during their apprenticeships provided that they do so under the supervision of a LPC or a licensed tradesperson who is operating under the general direction and control of a LPC.

Under the Vocational Education and Training (General) Regulations 2009, a training contract is successfully completed when the employer, apprentice and the RTO sign a 'completion agreement' confirming that all of the requirements of the training contract have been achieved. The RTO cannot award the Certificate III qualification until that agreement has been reached.

As an apprentice cannot apply for a plumbing licence without evidence of having obtained a Certificate III in Plumbing, this means there is always a period of time between the successful completion of the training contract and the date on which the graduate apprentice applies for and receives his or her plumbing licence.

Because of the way the term 'apprentice' is defined in regulation 3 of the Plumbing Regulations, if a newly qualified plumber carries out any plumbing work during the period between completing his or her training contract and receiving his or her tradesperson's licence, he or she commits the offence of undertaking unlicensed plumbing work.[25]

The Board has put in place a policy of not prosecuting graduating plumbers in such circumstances, provided that they have received a 'completion agreement' confirming the successful completion of the training contract, **and** have submitted an application for a tradesperson's licence within 14 calendar days of receiving that agreement.

As part of the reform program arising from the ACIL Allen review, the Department has taken the opportunity to review this approach with a view to better addressing the transition from apprentice to tradesperson. The possible options are discussed in section 4.3.6.

3.3 The compliance regime

One of the overarching conclusions ACIL Allen drew from their review of WA's approach to plumbing regulation was that the compliance regime should be:

> "'tightened' to increase its visibility and ensure that the chance that a particular piece of plumbing work will be inspected is the same regardless of whereabouts it is done." [26]

The term 'compliance regime' was used by ACIL Allen to refer both to the structural and operational aspects of the regime.[27]

ACIL Allen's comments on the structural aspects of the compliance regime can be divided into two distinct areas. The first relates to the question of <u>who</u> should occupy the role of the technical compliance regulator. The second relates to <u>how</u> that role should be fulfilled. This section of the CRIS deals only with the 'how'. The question of the 'who' is covered in section 3.4.

[25] Regulation 9 of the Plumbing Regulations

[26] Page vii of the ACIL Allen Report

[27] Section 5 of Part II of the ACIL Allen Report (p.61)

ACIL Allen's recommendations for reforming the compliance regime

ACIL Allen characterised their recommendations about the compliance regime as just a 'fine tuning' of the existing arrangements. The only exception was in relation to the disciplinary scheme, where substantial changes were recommended.

As detailed in section 1.4 of this CRIS, a number of ACIL Allen's findings in relation to the compliance regime – including many of those relating to the way disciplinary action is taken – have already been implemented via changes to the Plumbing Regulations effective from April 2016.

This CRIS therefore focuses only on those recommendations that remain outstanding. Those are:

- whether to amend the Plumbing Regulations to make it illegal for a person who is not a LPC to advertise or otherwise offer to provide services that involve plumbing work; and
- whether to amend the Plumbing Regulations to allow disciplinary actions to be resolved by enforceable undertaking.**

Advertising plumbing services

Regulations 25 and 25A of the Plumbing Regulations require a LPC to display his or her licence number on any advertising, including business cards and letterheads. Failure to do so constitutes an offence.

However, there is nothing to prevent an unlicensed person or business from advertising the provision of plumbing services even though he/she is not legally entitled to perform such services. For example, it is not illegal under the plumbing laws for a business that specialises in bathroom or kitchen renovations to advertise those services even though the business may not be owned or operated by a LPC. The only obligation on such businesses under the plumbing laws is that plumbing work done as part of the renovation must be undertaken by a licensed plumber.

In order to establish that an unlicensed person or business has not broken the law either by carrying out plumbing work him/herself or by knowingly engaging someone who is not a licensed plumber to carry out plumbing work on his/her behalf, the regulator must follow a chain of evidence to identify who performed the plumbing work.

ACIL Allen commented that it would be more pragmatic and cost reducing if the regulator were permitted to act on advertising by non-licensed plumbing contractors. It therefore recommended that the Plumbing Regulations be amended to make it illegal for an unlicensed person or business to advertise or otherwise offer to provide plumbing services.[28]

[28] Section 5.1.1 of Part II of the ACIL Allen Report (p.62)

** ACIL Allen define an 'enforceable undertaking' as, "an undertaking given by a regulated entity to the regulating body where there has been a contravention of the regulations. Enforceable undertakings are generally accepted by the regulator as an alternative to taking civil or administrative action, where the regulated body and the regulator agree upon action the regulated body will take to rectify the contravention. These undertakings are enforceable in the court system." (p.64)

There are currently a number of businesses such as kitchen and bathroom renovation companies that legitimately offer services that might include plumbing work. Investigations carried out by plumbing inspectors suggest that while some of those businesses do fall foul of the plumbing laws by not engaging a LPC to carry out all or any of the plumbing work that might be involved in a project, many do the right thing and ensure that all plumbing work is carried out by a person with the appropriate plumbing licence.

The introduction of a regulation amendment of the type recommended by ACIL Allen would impact those businesses that do not breach the plumbing legislation and who operate within the law. Such businesses are responsible for a substantial amount of work in WA and some could be put out of business if a ban on advertising of the type proposed by ACIL Allen were to be implemented.

Possible approaches

The introduction of a class of plumbing licence for business entities as discussed in section 3.2.1 above would make it more straightforward to implement ACIL Allen's recommendation because any business holding such a licence could be required to display their licence number in any advertising.

An alternative option might be to require plumbing businesses that are not owned and operated by a LPC to keep records of all plumbing work carried out on behalf of the business, together with the name and licence number of the LPC they engaged to do that work. This record could be required to be made available for inspection on request by a plumbing inspector.

These options are discussed in more detail in section 4.4.1 of this CRIS.

Enforceable undertakings

One of the proposals ACIL Allen recommended in relation to the compliance regime for plumbing was the introduction of 'enforceable undertakings' as a disciplinary action open to the regulator in misconduct cases. Enforceable undertakings are a feature of many regulatory systems and provide the capacity for the regulator to agree to accept a particular undertaking in lieu of a fine or other court-imposed sanction.

In essence, enforceable undertakings are an administrative sanction and a form of settlement between the regulator and the offender. They are generally only ever used in relation to the more minor types of offence and can involve things such as the offender agreeing to publicise details of the offence in the press as a deterrent to others. Often, the cost of the undertaking must be at least equal to the size of the fine that may otherwise be likely to be imposed by the court.

ACIL Allen saw the advantage of enforceable undertakings as being that it allows the regulator to tailor the solution to the specific situation and simplify the process of taking future action for the same type of misconduct by the same person if necessary. ACIL Allen made no recommendations as to the sorts of enforceable undertakings that might be appropriate but did indicate that it could be an agreement to "refrain from specified conduct in future" or to "rectify sub-standard plumbing".[29]

[29] Section 5.1.3 of Part II of the ACIL Allen Report (p. 64)

The cost to the regulator in terms of setting up and monitoring an enforceable undertaking can be significant. When that is taken into account, along with the fact that the Plumbing Regulations already contain both the capacity for rectification notices to be issued for sub-standard plumbing and the power for the Board to take disciplinary action for misconduct by plumbers, it is questionable whether there would be any benefit in establishing a scheme for enforceable undertakings under the Plumbing Act.

That said, the Department would nevertheless welcome comment from stakeholders on this issue.

3.3.3 Other matters

In addition to the two recommendations from ACIL Allen discussed above, there are a number of other issues that have since been identified for possible implementation. These are as follows and are discussed in more detail in section 4.4 of this CRIS.

a) Introduce a modified penalty provision for failing to exercise general direction and control over licensed plumbing tradespersons. (Note: this penalty would only apply to LPCs.)

b) Introduce a modified penalty provision for failing to supervise the work of the holder of a provisional licence. (Note: this penalty would only apply to LPCs.)

c) Increase the maximum penalty amount in section 59K of the Act commensurate with other similar industry regulation regimes.

d) Amend the Act to extend the timeframe within which a prosecution for an offence against the Act or the Plumbing Regulations can be commenced.

e) Reduce the administrative burden associated with the compliance notification requirements for minor plumbing work.

3.4 Who should be the plumbing regulator?

A key focus for the ACIL Allen review was to evaluate the institutional, governance and decision-making arrangements for the regulation of plumbers and plumbing work in WA, and identify areas where enhancements could be made. In setting out their views on the optimum model, ACIL Allen essentially identified four 'decision makers':

a) the licensing authority (who sets the licensing categories and criteria);

b) the licensing administrator (who assesses licence applications against the criteria);

c) the technical standards authority (who determines the technical rules for plumbing work); and

d) the technical regulator (who monitors and enforces compliance with the technical rules).

As discussed in section 2.3 of this CRIS, the technical rules for plumbing work in WA are now set at the national level via the PCA. As such, the question as to who the technical standards authority should be is beyond the scope of this CRIS. ACIL Allen's conclusions in relation to the other three categories of decision maker are discussed below[30].

[30] Section 6 of Part II of the ACIL Allen report (p.72 to 76)

The licensing authority

In terms of the role of the licensing authority, ACIL Allen concluded that greater flexibility would be achieved if the licensing categories and criteria (including any decisions relating to the 'horizontal' and 'vertical' separation of the licensing system) were no longer "hard coded" into the Plumbing Regulations, but rather made either by the Minister by Ministerial Order or delegated to a licensing authority such as a licensing commissioner, who could then delegate those decisions to the technical regulator or a separate decision-maker. ACIL Allen did not determine which of the two options was preferable, saying only that,

> "the choice between Minister and delegated authority and between the possible authorities should be based on an analysis of the relative efficiency of each".

ACIL Allen's report did, however, note that in practice there may be little difference between the costs involved with each approach, as the work itself would be done by similar people[31]

The licensing administrator

For the role of licensing administrator, ACIL Allen's view was that the role could either be given to the department or to the 'technical regulator'.

Again, the ACIL Allen report did not recommend one option over the other, saying only that,

> "the choice should depend on which can perform the necessary functions most efficiently. In practice we do not expect that there would be a substantial difference." (p.76)

The technical regulator [32]

As with the roles of licensing authority and licensing administrator, ACIL Allen did not suggest a specific model for the technical regulator. However, they did recommend the following:

- The technical regulator should be a statutory officer holder (e.g. a plumbing commissioner) or a group thereof (e.g. a board), supported by staff provided from the Western Australian Public Service.
- Strategic synergies and access to economies of scale could be achieved if the plumbing regulator was part of a multi-trade regulator as opposed to a single-trade model.
- Further efficiencies could be achieved if the technical regulator also has the role of licensing administrator.
- The technical regulator, or its members, should be appointed for a fixed term and have a blend of skills and experience covering not only technical plumbing skills, but also public administration skills, legal skills, consumer protection skills, knowledge of the training sector, and knowledge and experience of issues relevant to small business and people in remote parts of the State.
- If the technical regulator is a board, its size should not be fixed; all members should be determined by the Minister using a skills matrix rather than from a pool of nominees put forward by specified groups; and it should be chaired by a person who is independent of both the Government and the plumbing industry.

[31] Page 75 of the ACIL Allen report
[32] Section 7 of Part II of the ACIL Allen report (p.77 to 85)

3.5 The funding model for plumbing regulation

Since the commencement of the Plumbing Act in 2000, the compliance and enforcement regimes for plumbers and plumbing work have been entirely funded from compliance notification fees paid by licensed plumbers and permit holders.

ACIL Allen saw no need to disturb the basic principle that plumbing regulation should be industry funded. However, they did note shortcomings with the current arrangements.

In WA, all major plumbing work requires a 'notice of intention' to be submitted prior to any work being undertaken. A LPC must not carry out, permit or arrange for 'major plumbing work' to be carried out unless a notice of intention for the work has been submitted. Books of pro-forma notices must be purchased from the Board. Each individual notice costs $22.50 (or $22.75 if the work involves the installation of a Performance Solution.)

Once the work is completed, the LPC who lodged the corresponding notice of intention must submit to the Board a 'certificate of compliance' within five working days of completing the work. As the certificate of compliance is a duplicate copy of the notice of intention, no additional fee is charged for it.

All 'minor plumbing work' carried out must be certified on a multi-entry certificate. A multi-entry certificate will record up to 25 individual jobs and must be submitted to the Board within five working days after the end of each calendar month during which the work was carried out. As with notices of intention, books of pro forma certificates must be purchased from the Board. Each certificate costs between $16.00 and $17.00 depending on the number purchased.

Pursuant to regulation 45 of the Plumbing Regulations, new installation fees (generally referred to as 'fixture fees') are also payable in respect of plumbing work for a new building, or an extension to an existing building (where there is a change in the roofline) that will include at least one new sanitary fixture. The total fee is dependent on the number of fixtures being installed, with a fee of $69.25 for 1-9 fixtures, and an additional $11.40 for each fixture after that.

The charging of fixture fees is based on a methodology set by the Water Corporation at the time when it was the plumbing regulator. This methodology applies the principle that as every plumbing fixture installed or connected adds a load onto the Water Corporation infrastructure, a fee is required to be paid.

The fees paid for notices of intention/certificates of compliance, multi-entry certificates and fixture fees are what currently funds the compliance and enforcement regimes for plumbing in WA.

For the 2016/17 year, there were over 53,000 notices of intention submitted, of which almost 19,000 had a fixture fee attached. This represents a high volume of low-value transactions, with associated administration costs to licensed plumbers as well as the plumbing regulator. In the case of the regulator, this diverts resources that could otherwise be used for compliance activities.

The notification of plumbing work is an integral part of the self-certification compliance scheme administered by the Board. However, tying a fee to that notification makes compliance less likely. It also makes the administration associated with those notices more complex.

ACIL Allen proposal

ACIL Allen identified two principles which it believed should form the foundations of how plumbing regulation should be financed:

1. **Accountability**: monies raised purportedly for plumbing regulation should not be spent on other activities.
2. **User pays**: the cost of plumbing regulation should be met by those who benefit from it.

In explaining the user pays principle, ACIL Allen concluded that,

> "the beneficiaries of plumbing regulation are not just plumbing customers. All Western Australians benefit from plumbing regulation, which suggests that all Western Australians should contribute to the cost".

ACIL Allen determined that the current funding method fails to meet those fundamental principles and that a preferable funding approach would be via a levy on water services providers, which would ultimately be passed on to providers' customers. They also recommended that in order to achieve greater accountability, the regulator should be required to identify how funds raised from the industry are spent.

Changing the model to one involving a levy on water services providers would meet other criteria too, such as:

1. **Reduced red tape**: A funding stream based on a small number of high value transactions is much simpler to administer than the current mechanism of funding plumbing regulation through a high volume of low-value transactions based on each instance of plumbing work.[33]
2. **Certainty**: Once the levy amount has been set, the regulator (and the plumbing industry) will be clear as to how much funding is available, and can plan its regulatory activity accordingly.

The potential funding model identified by ACIL Allen is similar to that which is operated for the regulation of gas and electrical work in WA.

The *Energy Safety Act 2006,* the *Energy Safety Levy Act 2006* and the supporting *Energy Safety Regulations 2006* established the current funding model for the technical and safety regulation of the electricity and gas industries and enable the collection of a levy from energy industry participants. The levy is calculated annually using a set formula for assessing the amount to be paid by each liable energy industry participant. The compliance regime for gas and electrical safety has been almost entirely funded by this levy since the 2006/2007 financial year.

Further discussion about ACIL Allen's recommendation that a water services levy be introduced to fund plumbing regulation in WA is contained in Section 4.1 of this CRIS.

[33] It is acknowledged that water services providers may pass the levy onto customers via a small charge on each water services bill. However, it is considered that the administration required to perform this is much simpler (i.e. a bulk change to water bills) rather than the current mechanisms requiring forms to be completed for each instance of plumbing work.

04 Proposals for reform

Introduction

This Chapter of the CRIS outlines various proposals and options for implementing the remaining ACIL Allen recommendations highlighted in Chapter 3. Other issues that have arisen since the publication of ACIL Allen's report are also addressed in this Chapter.

4.1 Reform area one – Funding plumbing regulation

As recent government infrastructure projects have illustrated, WA needs a well-funded and effective plumbing regulation system in order to adequately protect:

- the general public who rely on safe and efficient plumbing systems;
- consumers who contract plumbing services; and
- the environment.

As discussed earlier in this CRIS, one of the overarching conclusions ACIL Allen drew from their review of plumbing regulation in WA was that the compliance regime needed to be 'tightened' and made more visible. This view has long been echoed by the Board, the Master Plumbers and Gasfitters Association of WA Inc (MPGA) and other key plumbing industry stakeholders, who believe that the current level of government oversight of the plumbing industry in WA is unsatisfactory due to an insufficient number of plumbing inspectors.

Moreover, if the proposal to expand the scope of licensed plumbing work proceeds along the lines recommended by ACIL Allen (as outlined in section 3.1), this will further increase the compliance workload for the regulator.

The current method for funding the compliance regime for plumbing regulation is cumbersome and administratively burdensome both for the plumbing industry and the regulator. It is based on an antiquated system from a previous era when the Water Corporation regulated plumbing, and involves LPCs having to purchase from the Board pro-forma compliance and notification forms, which they must complete and return.

LPCs are also required to calculate and pay fixture fees on new plumbing fixtures installed in new buildings and extensions to existing buildings. This too is a time consuming and costly exercise for both industry and the regulator alike. It also poses many day-to-day complications, such as wrong payment amounts that need to be adjusted, or fees paid for work that does not go ahead or is taken over by another LPC part way through.

ACIL Allen highlighted a number of concerns about the current system, including that it:

- is an inefficient method of recovering costs;
- is administratively expensive to run;
- incentivises the under-reporting of work and results in the under-collection of fees; and
- collects fixture fees in relation to new construction only and misses work involving maintenance, renovations and refurbishments, no matter how extensive such work may be.

The conclusion reached by ACIL Allen was that the current funding model should be replaced by a levy on water/sewerage service providers. This is similar in concept to the model in place to fund the regulation of the electricity and gas industries in WA.

Discussion

The primary aim is to develop a funding model that is modern and efficient and which ensures that WA has an effective and appropriately resourced regulatory system for plumbing work. At the same time, the model needs to ensure that the commercial viability of the plumbing and water industries is maintained.

The Building and Energy Division of the Department operates on a cost recovery basis and receives no recurrent funding from government. As a result, it must tailor the extent of its plumbing compliance and enforcement programs according to the amount it currently collects in compliance fees from LPCs.

Recent reviews undertaken by the Department indicate a significant level of under-reporting of work by LPCs. This has had a consequential impact on the amount of revenue collected and, in turn, the extent of the compliance and enforcement work that plumbing inspectors have been resourced to undertake. The situation has been further exacerbated by the fact that fixture fees are only payable in the case of plumbing work for new buildings or extensions to existing buildings, and not any other kind of work, such as renovations, alterations and refurbishments.

In order to place the funding of plumbing regulation on a better footing, the Government has been considering alternative models that will provide a more reliable source of revenue and a more appropriate level of funding. The two options under consideration are discussed below.

Option one – Levy on water services providers as proposed by ACIL Allen

ACIL Allen's overarching view was that the cost of plumbing regulation should be borne by those who benefit from it. As the main purpose of an adequately regulated plumbing industry is to protect public health, ACIL Allen concluded that the beneficiaries are the Western Australian community as a whole, rather than individual plumbing customers.

Based on that view, ACIL Allen suggested that the best way to reform the current funding model was to impose a levy on water/sewerage service providers (who would be likely to pass the cost on to their customers.)

ACIL Allen cited the Energy Safety Levy[34] as a good example of how such a model could work. That levy has funded the compliance and enforcement aspects of the regulation of the gas and electricity industries for the past 10 years. It involves minimal red tape, provides budgetary certainty and fosters greater transparency and accountability by requiring the regulator to prepare annual financial plans and reports showing how the levy monies will be, and have been, used.

The Energy Safety Levy experience suggests that once adequate regulatory systems are in place and expectations stabilise, then annual rises in a regulatory levy will be in line with the Consumer Price Index.

The Department's experience of the operation of a levy model to fund the regulation of the gas and electricity sectors has been overwhelmingly positive as it has provided certainty and flexibility in funding, rigour to forward planning, and the transparency and probity required for good public administration and government.

Most importantly, the legislation supports the regulatory function by insulating the funding base from the wider budgetary process, with levy funding and accompanying accountability measures also ensuring that all monies collected will be used for the purpose for which they were collected.

The recent amalgamation of plumbing with gas under the Department's new organisational structure, together with the introduction in the near future of an electronic process for the submission of plumbing compliance notifications, provides a useful juncture at which to introduce a new levy arrangement to fund plumbing regulation more efficiently and effectively.

Option two – Broaden the scope of fixture fees

The Department has also looked at whether a broadening of the scope of fixture fees to cover other types of building work, such as alterations, renovations and refurbishments, in addition to new buildings and extensions to existing buildings, would be a viable alternative to the levy option.

Impact analysis for Options one and two

The Department asked Marsden Jacob to determine through an impact analysis which of the two models (i.e. a levy or a broadening of the basis for charging fixture fees) offered the best foundation for change.

The primary evaluation method used by Marsden Jacob was a principles-based approach that considered each reform option against defined criteria, drawing on principles from cost-recovery guidelines and principles for setting fees and charges in Australia, such as:

- the Western Australian Government's guidelines on *Costing and pricing of government services* (June 2015)[35]; and
- the Australian Government's *Cost recovery guidelines* (July 2014).[36]

[34] The legislative authority for the Energy Safety Levy is contained in the *Energy Safety Levy Act 2006* and the *Energy Safety Act 2006*

[35] Department of Treasury, *Costing and pricing government services: guidelines for use by agencies in Western Australian public sector*, Government of WA, June 2015, online.

[36] Department of Finance, *Australian Government cost recovery guidelines*, 3rd edition, resource management guide no. 304, Australian Government, July 2014, online.

The key principles and assessment factors against which Marsden Jacob assessed the fee collection options included clarity of purpose, transparency, efficiency and timeliness.

A traffic light system was used to highlight where each option did not meet criteria (●), partially fulfilled criteria (●) or fulfilled criteria (●).

The outcomes are summarised in the following table taken from Marsden Jacob's final report.

Table 3: Assessment of reform options against defined criteria

Key: ● = Does not meet criteria ● = Partially fulfils criteria ● = Fulfils criteria		
	Option 1: Increase in Fixture Fees	Option 2: Plumbing levy
Legality		
Able to be charged	●	●
Clarity of purpose		
Fees should be linked to work (i.e. the beneficiary pays)	●	●
Revenue adequacy	●	●
Consistent income	●	●
Transparency		
Costs should be explicit and recognisable	●	●
Fee structure should not be excessively complicated	●	●
Efficiency		
Create right incentives	●	●
Consistent fees for companies	●	●
Cost of collection	●	●
Minimise cross-subsidisation	●	●
Timeliness		
Need to review regularly	●	●
Able to be implemented in a timely manner	●	●

Financial impacts

The potential financial impact of each option was examined, as well as the alignment of the options with the approaches adopted for comparable Western Australian industries overseen by the Department.

Marsden Jacob commented that while both Option One and Option Two should result in the collection of funds sufficient for cost recovery, their immediate impacts differ by stakeholder type. Moreover, the levy option (Option Two in the above table) involves a significant change in the way funds are collected. Rather than costs being passed on from plumbers to their customers only when a plumbing service is required, all users of water service providers' services would contribute to the funding on an ongoing basis.

A further important consideration identified by Marsden Jacob in relation to the levy option is its impact on individual water service users. The three largest water utilities have around 1.1 million properties connected for water supply, as demonstrated in the following table:[37]

Utility	Properties connected
Water Corporation	1,078,639
Busselton Water	12,875
Bunbury Water (Aqwest)	17,113
Total number of properties	**1,108,627**

Source: Utilities' 2016 annual reports.

Based on a best practice model for compliance and enforcement developed by the Department, Marsden Jacob calculated that this would equate to a levy on each property of marginally over $5 per annum. The levy would therefore be very small compared to average annual household expenditure on water and sewerage services which is estimated at $1,553. The exact form of the levy has not been determined but could be:

- a fixed fee per property;
- A variable fee based on metered water use; or
- A variable fee based on the value of the property (similar to sewerage charges).

Conclusion

On the basis of their analysis, Marsden Jacob concluded that the levy option appears preferable and, subject to consultation via this CRIS process, further work should be done to implement this reform.

[37] While many households receive water services and sewerage services, there are many cases in which a house receives one service but not both. For this reason, it may be fairest if the fees are split between water and sewerage and customers pay only the fees that are relevant for their properties.

4.1.1 PROPOSAL ONE: A new funding model for plumbing regulation

Taking into account all of the factors discussed above, the Department's view is that a levy model tied, as it is in the gas and electricity sectors, to a best practice compliance and enforcement strategy that requires the regulator to submit to the Minister five-yearly statements of corporate intent, annual business plans and annual reports, will enable government to provide a much-improved service to the community and the fairest and most equitable means by which to fund that service.

It would also ensure much greater transparency and accountability in the application of funds, more rigour in the compliance regime, and a significant reduction in red tape for both the industry and government through the abolition of the compliance fee system.

Crucially, it would position the Government such that it can continue to ensure WA has a regulatory framework that provides the necessary public health protections and enables industry to innovate and adopt new and efficient technologies and plumbing practices that will take WA forward.

Questions for consultation

1. Do you support the proposal that a levy on water/sewerage service providers be introduced to fund plumbing regulation as an alternative to the current system of charging compliance fees? If yes, please tell us why.
2. If you answered no, please provide details about why you do not support a levy and whether there is an alternative funding mechanism that you prefer.

4.2 Reform area two – The scope of regulated plumbing work

As outlined in section 3.1 of this CRIS, ACIL Allen made a number of recommendations about revising the definitions of the various branches of plumbing work covered by the plumbing laws in WA. Section 3.1 also contained a discussion around the issues associated with the maintenance of plumbing safety devices such as testable backflow prevention devices and thermostatic mixing valves.

This section of the CRIS sets out a number of options and proposals for addressing each of those matters. These are summarised below and are discussed in detail on the following pages.

Summary of proposals to re-define the scope of regulated plumbing work

1. It is proposed to redefine 'plumbing work' in the principal Act to create greater flexibility and enable the legislation to adapt more readily to future changes in the industry. **(Proposal Two)**
2. It is proposed to redefine 'water supply plumbing work' in the Plumbing Regulations to bring **non-drinking water services** (Part B3 of the PCA) and **unmetered drinking water services** within the scope of the plumbing legislation. **(Proposal Three)**
3. It is proposed to redefine 'sanitary plumbing work' in the Plumbing Regulations to provide greater clarity and closer alignment with the PCA. **(Proposal Four)**
4. It is proposed to redefine 'drainage plumbing work' to better align with the PCA, provide greater clarity around the delineation between 'internal' plumbing work (which is covered under the Plumbing Act) and 'exempt work' (which is covered under the *Water Services Act 2012*), and clarify who is permitted to carry out garden reticulation work. **(Proposals Five and Six)**
5. It is proposed to deregulate a small number of basic plumbing repair tasks to enable certain work in private homes to be carried out by non-plumbers. **(Proposal Seven)**
6. It is proposed to introduce a new regulatory requirement aimed at ensuring that plumbing safety devices, such as testable backflow prevention devices and thermostatic mixing valves, are regularly tested and properly maintained. **(Proposal Eight)**

4.2.1 PROPOSAL TWO: Expanding the scope of plumbing work in the Plumbing Act

The discussion in section 3.1 of this CRIS highlighted the fact that a fundamental problem with the current regulatory framework is the inflexibility of the definition of 'plumbing work' in the Act and its inability to accommodate some aspects of the PCA or adapt to future changes in the industry. Consequently, a new approach to the definition of 'plumbing work' in the principal Act needs to be implemented.

Options

ACIL Allen put forward two suggestions as to how to redefine the scope of plumbing work for the purposes of the scope and application of the Plumbing Act. One suggestion was based on a task-oriented definition of the term 'plumbing work', and the other was based on a branch-oriented definition of that term.

Option one – A task-oriented definition of 'plumbing work'

ACIL Allen concluded that if a task-based definition were to be adopted, it should cover the following:

> "*The installation, alteration, extension, disconnection, repair or maintenance of pipes, fixtures and fittings to carry water, wastewater and other wastes between equipment owned and operated by a water service provider and a point of use*[38]"

This list of tasks mirrors that in the current definitions of water supply plumbing work, sanitary plumbing work and drainage plumbing work in regulation 4 of the Plumbing Regulations.

While the definition proposed by ACIL Allen is clear, it does not – in itself – provide any flexibility to be able to refine or shape the scope of regulated plumbing as may be required over time. It also assumes that all water services and sewerage services are provided by a service provider (such as the Water Corporation) when the reality is that this is not always the case, particularly in country areas. Moreover, it does not address activities such as design and does not include all of the tasks that are covered in the PCA[39].

On that basis, if a task-oriented approach of the type suggested by ACIL Allen were to be adopted, the definition ACIL Allen proposed would need to be amended. In addition, the capacity for the definition to be changed over time would also need to be built in.

Option two – A branch-oriented definition of 'plumbing work'

The alternative approach suggested by ACIL Allen was to define 'plumbing work' by reference to its various 'branches' rather than specific work activities or tasks within those branches.

This is the same approach as in the current Plumbing Act where the definition of plumbing work is divided into the branches of water supply plumbing, sanitary plumbing and drainage plumbing.

This is also the approach adopted in Victoria, where the principal Act (the *Building Act 1993*) defines plumbing work[40] as, "any plumbing work that the Plumbing Regulations 2008 state is work to which the Act applies". Each branch of plumbing work covered by that Act[41] is then listed in the Plumbing Regulations 2008, with the full detail provided in separate chapters devoted to each branch in the list[42].

Proposal for consultation

The preliminary view is that a combination of the above approaches would provide the greatest flexibility and clarity and thus best address the issues raised by ACIL Allen.

On that basis, it is proposed to amend the current legislative framework such that the Plumbing Act contains a task-based definition of 'plumbing work', with the power to make regulations prescribing how those tasks apply in relation to each branch of plumbing work.

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[38] P. 49 of the ACIL Allen Report

[39] These are: design, construction, installation, replacement, repair, alteration and maintenance

[40] Section 221C of the Building Act 1993 (Vic)

[41] Part 2 of the Plumbing Regulations 2008 (Vic)

[42] Parts 4 to 11 of the Plumbing Regulations 2008 (Vic)

The resulting definition of 'plumbing work' in the Plumbing Act would therefore look something like this:

> (a) work *prescribed* as the design, construction, testing, installation, alteration, extension, replacement, repair or maintenance of pipes, fixtures, fittings, devices or apparatus used or intended to be used to convey water, wastewater and other wastes; or
>
> (b) other *prescribed* work,
>
> but does not include work of a kind *prescribed* for the purposes of this definition as not being plumbing work.

In this definition, the term '*prescribed*' means prescribed in the Plumbing Regulations. Proposals Three to Five on the following pages outline how the prescribing process would work.

This approach is similar to that in the plumbing laws in New South Wales and South Australia, and mirrors the approach taken for the definition of 'building work' in WA's *Building Act 2011*.

In summary, the proposed definition outlined above provides a broad task-based definition that:

- includes all of the tasks currently listed in regulation 4 of the Plumbing Regulations;
- adds in those tasks covered by the PCA that are not specifically listed in the current definition in regulation 4 of the Plumbing Regulations (those being 'design', 'construction', 'replacement' and 'testing');
- provides a mechanism to enable other types of plumbing work covered in the PCA but not currently regulated in WA to be brought under the legislation via amendments to the Plumbing Regulations as and where appropriate; and
- enables regulations to be made to exclude certain types of plumbing work from the scope of the legislation where appropriate.

In addition, the inclusion of 'devices' and 'testing' in the definition enables specific regulations to be made in relation to the maintenance of plumbing safety devices such as backflow prevention devices and temperature control devices (see Proposal Seven below).

Impact analysis

The fundamental problem that needs to be addressed in relation to the definition of 'plumbing work' in the Act is the inflexibility of the current wording. The solution proposed above would resolve that issue by setting a broad range of parameters that would be refined and shaped via the supporting regulations. This would provide the flexibility and 'future proofing' that is missing in the current Act.

Question for consultation

3. Do you support the proposed approach and revised wording for the definition of 'plumbing work' in the Plumbing Act? If not, please say why.

4.2.2 PROPOSAL THREE: A new definition of *water supply plumbing* work

ACIL Allen identified two key issues to be addressed in relation to the current definition of 'water supply plumbing work' in regulation 4 of the Plumbing Regulations:

1. the restriction imposed by the use of the term 'a meter assembly'; and
2. the lack of clarity around the interface between the parts of the water supply system that are under the jurisdiction of the *Water Services Act 2012* and the parts that should be dealt with under the plumbing laws.

The adoption of the PCA as the technical compliance standard also gives rise to a third issue. This relates to the question of whether the scope of 'water supply plumbing work' should be expanded to include Part B3 of the PCA (non-drinking water services[43]).

Part B3 of the PCA sets out the requirements for the design, construction, installation, replacement, repair, alteration and maintenance of any part of a non-drinking water service of a property, from the point of connection to the points of discharge. The primary objective is to ensure that non-drinking water is delivered in a way that avoids contaminating any drinking water service and minimises any adverse impact on building occupants, property, a network utility operator's infrastructure, and the environment.

In general, section 3.3 of Part B3 of the PCA defines the use of non-drinking water as being water used for garden watering, toilet and urinal flushing, clothes washing, vehicle washing and path/wall washing.

Currently, plumbing work relating to a non-drinking water service is not covered by the plumbing laws in WA. This is because the current definition of 'water supply plumbing work' in regulation 4 of the Plumbing Regulations only covers pipes and fittings "used or intended to be used for the supply of ***potable*** water."

This puts WA at odds with other jurisdictions, where plumbing regulators tend to regard non-drinking water systems such as greywater, rainwater and recycled water as a higher risk than drinking water systems.

Proposal for consultation

It is proposed to expand the scope of 'water supply plumbing work' by:

- removing the reference to 'a meter assembly'; and
- including non-drinking water services within the definition, via the adoption of Part B3 of the PCA

For clarity, the intention is to divide 'water supply plumbing work' into two categories - one for drinking water supply plumbing work (**Category One**), and one for non-drinking water supply plumbing work (**Category Two**). Full details are set out below.

[43] The PCA defines non-drinking water as water that is not intended for human consumption, food preparation, utensil washing or personal hygiene.

Category one – Drinking water supply plumbing work

Under this category, all drinking water plumbing work (other than 'exempt work' – see below) would be required to comply with the plumbing legislation irrespective of the source of the water or whether it is supplied via a meter assembly.

Accordingly, the scope of 'drinking water supply plumbing work' under the Plumbing Regulations would cover the following:

> work involving the design, construction, installation, replacement, connection, disconnection, repair, alteration or maintenance of any part of a cold water service or a heated water service that is connected to the drinking water supply, from the point of connection to the points of discharge.

The above wording encapsulates the concepts in the current definition of 'water supply plumbing work' in regulation 4 of the Plumbing Regulations and aligns with the PCA in that it distinguishes between cold water and heated water. The terms **'*drinking water*'** and **'*point of connection*'** used in the above definition would be defined as follows:

Drinking water	Water intended primarily for human consumption but which has other domestic uses.[44]
Point of connection	The point where the internal service pipe connects to the network utility operator's service (in the case of a metered supply) or to an alternative water supply system (in the case of an unmetered supply).

The differences between the proposed new definition of 'drinking water supply plumbing work' and the current definition of 'water supply plumbing work' are:

- The addition of 'design', 'construction', 'replacement' and 'connection' to the scope of work covered by the definition, so as to align with the PCA.
- The removal of the term 'meter assembly' to ensure that all drinking water services are covered by the plumbing laws, regardless of the source of the water (subject to the exclusions discussed on page 46 below).
- The inclusion of a definition of 'drinking water' that aligns with the PCA.

Exempt work

The current definition of 'water supply plumbing work' in the Plumbing Regulations specifically excludes:

> *"work carried out by or on behalf of a water services provider in connection with the undertaking, maintenance or operation of the water services works of the water services provider."*

It is proposed that this exemption continue to apply in relation to the new definition of 'drinking water supply plumbing work'. Consequently, any work relating to the water service provider's network infrastructure would continue to fall outside the scope of the plumbing laws.[45]

[44] This mirrors the definition of drinking water in the PCA and includes uses such as personal hygiene, food preparation and utensil washing.

Issues for consideration

In large part, the proposed new definition for 'drinking water supply plumbing work' simply aligns the Plumbing Regulations with the PCA. However, the proposal to remove the term 'meter assembly' from the existing definition does have a more significant impact as it would broaden the scope of the plumbing laws to include all sources of drinking water, including those that are unmetered.

On the whole, unmetered drinking water systems are found in parts of the State that are not served by a water services provider such as the Water Corporation. This often tends to be the more remote areas of WA.

Unmetered systems include:

- self-supply systems such as rainwater tanks;
- systems in smaller towns, remote mining towns and Indigenous communities;
- systems in temporary mining camps (such as FIFO operations);
- systems on private farms; and
- systems at recreational facilities (for example, some roadhouses and caravan parks self-supply their own drinking water).

Including all such systems within the scope of the plumbing laws would mean that all work relating to the drinking water system, from the point of connection to the water supply to the points of discharge within the property boundary, would have to be carried out by a licensed plumber.

As this would be likely to impose logistical difficulties (as well as additional costs) for owners of properties in the more remote parts of the State where access to a licensed plumber is limited, this needs to be duly considered.

An option would be to exclude those properties from the scope of the new definition. This would have the effect of maintaining the current status quo for such properties.

Impact analysis

In conducting the cost benefit analysis for the proposal to broaden the scope of water supply plumbing work to include unmetered drinking water services, Marsden Jacob was asked to apply the principles of best practice regulation by focusing on the area of greatest risk.

Property types and situations where the third party risk of harm could occur were considered high risk. For example:

- buildings that are, or are intended to be, a recreational facility (such as a caravan park, farm stay accommodation or a roadhouse);
- buildings that members of the public normally use (including in their capacity as employees or workers); and
- buildings to which members of the public are permitted access.

[45] This work would instead fall within the jurisdiction of the *Water Services Act 2012.*

In conducting its assessment of the impact of the revised scope of drinking water plumbing work, Marsden Jacob first estimated the increased costs that this proposal would incur, and then identified the quantum of benefits that would be necessary to outweigh those cost impacts.

The modeling used as part of that exercise was based on two types of unmetered system at locations where the risks would impact on third parties such as workers or members of the public. Those were:

- remote mining and infrastructure project sites; and
- remote parks and recreation facilities such as tourist parks and remote farmsteads.

Marsden Jacob's analysis concluded that a broadening of the plumbing laws to include unmetered drinking water would be likely to result in a **net benefit**.

On that basis, Marsden Jacob recommended that the scope of regulated plumbing work in WA be broadened to include unmetered drinking water systems, subject to the possible exclusion of owner-occupied private properties located in remote parts of the State that have limited access to a licensed plumber.

Accordingly, this CRIS seeks comment on a proposal to define drinking water plumbing work as:

> work involving the design, construction, installation, replacement, connection, disconnection, repair, alteration or maintenance of any part of a cold water service or a heated water service that is connected to the drinking water supply, from the point of connection to the points of discharge.

Questions for consultation

4. Do you support the proposed definition of 'drinking water supply plumbing work'? If not, please say why.

5. Do you agree that owner-occupied private properties located in remote parts of the State with limited access to a licensed plumber should be exempt from the proposed scope of 'drinking water supply plumbing work'? If no, please say why.

6. Are there any other circumstances where an exemption from the proposed scope of 'drinking water supply plumbing work' should apply? If yes, please say what they are and why you think an exemption should apply.

Category two – Non-drinking water supply plumbing work

As with Category One, it is proposed to ensure that work (other than 'exempt work'[54]) relating to the conveyance of 'non-drinking water' is regulated as licensed plumbing work under the plumbing laws, regardless of the source of the water and irrespective of how it is supplied.

On that basis, the scope of 'non-drinking water supply plumbing work'[46] under the Plumbing Regulations would cover the following:

> work involving the design, construction, installation, replacement, connection, disconnection, repair, alteration or maintenance of any part of a non-drinking water service, from the point of connection to the points of discharge.

In the above definition, the terms **'*non-drinking water*'** and **'*point of connection*'** are intended to mean the following:

Non-drinking water	Water which is not intended for human consumption, food preparation, utensil washing or personal hygiene.[47]
Point of connection	The point where the internal service pipe connects to the network utility operator's service or to an alternative water supply system.

The uses to which non-drinking water could be put would match those permitted under the PCA. This would mean that non-drinking water would be limited to the following uses:

(a) Garden watering
(b) Toilet and urinal flushing
(c) Clothes washing
(d) Vehicle washing
(e) Path/wall washing
(f) Industrial purposes
(g) Fire fighting
(h) Dust suppression

Impact analysis

Adoption of the above definition for non-drinking water supply plumbing work would mean that all work relating to a non-drinking water service, from the point of connection to the points of discharge within a property's boundary, would have to be carried out by a licensed plumber.

Marsden Jacob modelled the impacts for the two main types of non-drinking water systems, namely:

- recycled or greywater systems; and
- rainwater tanks.

[46] Where non-drinking water is used for urban irrigation purposes, a variation to this definition is intended to apply. This is discussed on page 63 below.

[47] This definition matches that in the PCA.

In conducting that exercise, Marsden Jacob focused on quantifying the costs where the risks of incidents affecting human health would be highest; that is, where the systems are connected to a dwelling and the risk posed by cross-contamination is higher (see pages 34-43 of Marsden Jacob's report at Appendix B).

Marsden Jacob concluded that although the number of reported deaths and illnesses relating to non-drinking water contamination is low and may not, in itself, justify any changes to the scope of the Plumbing Regulations, the ever increasing use of recycled water could be expected to increase the risk of such incidents occurring in the future, particularly in the absence of appropriate regulation. This is especially the case for 'third-pipe schemes' in buildings such as new apartment blocks.

Marsden Jacob also noted that under the IGA, WA has committed to take all reasonable steps to adopt the PCA. As Part B3 of the PCA sets the technical standards that must be applied in relation to non-drinking water services, adoption of that Part would be consistent with WA's obligations under the IGA.

For all of the reasons outlined above, Marsden Jacob recommended adoption of the proposal to broaden the scope of water supply plumbing work to include non-drinking water services.

Accordingly, this CRIS seeks comment on the proposal to expand the scope of water supply plumbing work under the Plumbing Regulations to include the following work in relation to non-drinking water:

> work involving the design, construction, installation, replacement, connection, disconnection, repair, alteration or maintenance of any part of a non-drinking water service, from the point of connection to the points of discharge.

Again, an exemption may be appropriate for owner-occupiers of private properties in the more remote parts of the State where access to a licensed plumber is limited.

Questions for consultation

7. Do you support the proposal to regulate non-drinking water supply plumbing work? If yes, do you agree with the definition of 'non-drinking water supply plumbing work' proposed above?
8. If you answered no to either or both of the questions in 7. above, please tell us why. If possible, please provide alternatives for consideration.
9. Would you support an exemption from the proposed scope of 'non-drinking water supply plumbing work' for owner-occupied private properties located in remote parts of the State with limited access to a licensed plumber? If no, please say why.

4.2.3 PROPOSAL FOUR: A new definition of *sanitary plumbing work*

ACIL Allen identified that the current definition of 'sanitary plumbing work' could and should be made clearer. To address ACIL Allen's finding, and better align with the PCA, it is therefore proposed to prescribe the following as 'sanitary plumbing work'[48] in the Plumbing Regulations:

> Work involving the design, construction, installation, replacement, connection, disconnection, ventilation, repair, alteration or maintenance of above ground pipes, fittings and fixtures used or intended to be used to collect and convey wastewater or other waste to a sanitary drainage system or an on-site wastewater management system or an approved[49] disposal system.

The terms '*sanitary drainage system*', '*on-site wastewater management system'* and '*approved disposal system*' in the above definition are intended to mean the following:

Sanitary drainage system	An assembly of pipes, fixtures and fittings which is used or intended to be used to collect and convey: • the discharge from the sanitary plumbing system; and • any discharge from fixtures directly connected to the drain.
On-site wastewater management system	A system installed on premises that receives and/or treats wastewater generated on the premises and applies the resulting effluent to an approved[52] disposal system or re-use system.
Approved disposal system	An apparatus for the disposal of wastewater or other waste.

The differences between this proposed definition and the one that currently appears in regulation 4 of the Plumbing Regulations are:

- the inclusion of 'design', 'construction', 'replacement', 'connection' and 'alteration' as tasks relating to sanitary plumbing work;
- the inclusion of 'pipes' in addition to 'fixtures' and 'fittings'; and
- the inclusion of the terms 'sanitary drainage system', 'on-site wastewater management system' and 'approved disposal system'.

Impact analysis

As the proposed amendments to the definition largely seek to align the terminology in WA's plumbing laws with the PCA, they are not expected to have a significant impact on the industry or consumers.

Question for consultation

10. Do you support the proposed new definition for 'sanitary plumbing work' set out above? If not, please say why.

[48] Note: the exemption that currently applies in relation to water services licensees would continue.

[49] The term 'approved' means approved by the relevant regulatory authority (currently the Department of Health)

4.2.4 PROPOSAL FIVE: A new definition of *drainage plumbing work*

ACIL Allen identified a lack of clarity with the current definition of 'drainage plumbing work' in the Plumbing Regulations. It is therefore proposed to clarify that term and identify more precisely the demarcation between the Plumbing Act and the *Water Services Act 2012* by amending the current definition of 'drainage plumbing work' such that it covers the following:

> Work, other than exempt work[50], involving the design, construction, installation, replacement, connection, disconnection, repair, alteration or maintenance of underground pipes and other fittings used or intended to be used to convey discharge from a sanitary plumbing system to a sewer or an on-site wastewater management system or an approved[51] disposal system.

In the above definition, the terms **'sanitary plumbing system', 'on-site wastewater management system'** and **'approved disposal system'** are intended to mean the following:

Sanitary plumbing system	An assembly of above-ground pipes, fixtures and fittings which is used or intended to be used to collect and convey wastewater or other waste to the sanitary drainage system.
On-site wastewater management system	A system installed on the premises, that receives and/or treats wastewater generated on the premises and applies the resulting effluent to an approved[54] disposal system or re-use system.
Approved disposal system	An apparatus for the disposal of wastewater or other waste.

The differences between this proposed definition and the current one in regulation 4 of the Plumbing Regulations are:

- the addition of 'design', 'construction', 'replacement', 'connection' and 'alteration' as tasks relating to drainage plumbing work, to match the PCA; and
- the use of the terms 'discharge', 'sanitary drainage system', 'on-site wastewater management system' and 'approved disposal system' to replace the terms 'wastewater', 'sewer' and 'apparatus for the treatment of sewage' and thus align with the terminology used in the PCA.

Impact analysis

As the proposed amendments largely seek to align WA's plumbing laws with the PCA, the above changes are not expected to have a significant impact on the industry or consumers.

Question for consultation

11. Do you support the proposed new definition for 'drainage plumbing work'? If not, please say why.

[50] Note: the exemption that currently applies in relation to water services licensees would continue.

[51] The term 'approved' means approved by the relevant regulatory authority (currently the Department of Health)

4.2.5 PROPOSAL SIX: Garden reticulation plumbing work

ACIL Allen identified a degree of confusion and misunderstanding among stakeholders about whether work to install and maintain garden reticulation systems was licensed plumbing work. It is therefore proposed to clarify this in the legislation.

Garden reticulation systems that use mains (scheme) water (i.e. drinking water)

ACIL Allen found that the 'cutting in' of a backflow prevention device as part of work to install a garden reticulation system using mains drinking water, together with any work upstream of that device, should rightly be licensed plumbing work, but any work downstream of the device could be done safely without the specialist expertise of a licensed plumber.

Garden reticulation systems that use wastewater (i.e. non-drinking water)

Rapid population growth, coupled with a drying climate and advances in water-saving technology, all mean that people are increasingly looking at recycling water for uses such as watering gardens, irrigating public open spaces and industrial processing.

Increasing the use of non-drinking water for applications that do not require water to be of high quality enables the conservation of the drinking water supply that is so vital for the protection of public and environmental health. However, non-drinking water must still be fit-for-purpose and must therefore meet certain quality standards. Water must have been treated to an appropriate level for its intended use, even more so when the intended use is the watering of backyards and public open spaces.

The Western Australian Department of Health supports water recycling as a sustainable and beneficial option to manage scarce and valuable water resources, but it has strict rules and regulations in place under the *Health (Miscellaneous Provisions) Act 1911* to ensure that the required health standards are met. The legislation is also supported by a code of practice titled *Code of Practice for the Reuse of Greywater in WA*.

As the risks to public health are higher when reticulation systems are drawn from wastewater, it is appropriate to consider whether some level of regulatory oversight should be implemented in the plumbing laws (in addition to the public health laws) to ensure those risks are controlled.

The main risks to public health when installing a garden reticulation system using non-drinking water are:

1. cross-connection between the non-drinking water service and any drinking water service;
2. mistakenly identifying the non-drinking water service as a drinking water service; and
3. health risks associated with the distribution of wastewater for reticulation purposes.

In a submission to the Board dated November 2016, the Greywater and Wastewater Industry Group (GWIG) made the case for the introduction of a regulatory instrument to ensure that people involved in work relating to garden reticulation systems drawn from recycled wastewater were appropriately trained and skilled to do so.

GWIG is of the view that reticulation systems running from a recycled wastewater supply should be made a subset of regulated plumbing work. They argued that the people who do such work do not need to be fully licensed plumbers but do need to have completed relevant training and to have acquired appropriate skills and knowledge to be able to apply and adhere to the necessary technical standards imposed by the public health regulator.

GWIG therefore called for the introduction of a new class of plumbing licence or permit aimed specifically at garden reticulation systems using wastewater. GWIG said that this licence/permit should require applicants to have completed a tailor-made training course covering the design, planning and installation of garden reticulation systems, as well as the requirements of the plumbing and public health laws.

Impact analysis for wastewater reticulation systems

People who perform the work of laying out the reticulation pipes and installing the controller for systems that use wastewater need to be sufficiently competent in order to deliver work to a trade finish. However, there is no evidence to support the case for additional regulation over and above that which is already in place under the public health laws for reticulation systems that run off non-drinking water.

While GWIG makes a spirited case for a licensing system akin to that which operates in New South Wales, an assessment of the risks and benefits for WA does not, on the current evidence, demonstrate that the inevitable costs involved in introducing and maintaining a plumbing permit system for this type of work would be outweighed by any benefits.

On that basis, it is proposed to make only a simple clarifying amendment to the Plumbing Regulations to stipulate that work carried out on a garden reticulation system downstream of the point of connection to a non-drinking water supply is outside the scope of regulated plumbing work. This would mean that such work could be performed by non-licensed people.

Should clear evidence of a risk to public health become evident in the future as the use of recycled water becomes more prevalent, the new flexibility proposed within the new definitions of plumbing work (as discussed in section 4.2.1 above) would enable a review of this position to be undertaken.

Questions for consultation

12. For systems using drinking water (i.e. scheme water): do you support the proposal that garden reticulation work downstream of a backflow prevention device be treated as outside the scope of the plumbing laws? If not, please say why.
13. For systems using non-drinking water: do you support the proposal that garden reticulation work downstream from the point of connection to the non-drinking water supply be treated as outside the scope of the plumbing laws? If not, please say why.

4.2.6 PROPOSAL SEVEN: Requirements for testing and maintaining plumbing safety devices

The safety devices that ensure our drinking water is kept safe from cross contamination (known as backflow prevention devices) and those that ensure heated water does not cause scalding (known as temperature control devices) are vital components for a safe and reliable plumbing system.

Backflow prevention devices

The World Health Organisation has identified that one of the main risks in the work undertaken by a plumber is the potential for contamination by cross connections[52]. It therefore follows that the elimination of this risk is one of the prime objectives of a well-designed and properly installed plumbing and drainage system.

A cross connection is where pipework carrying water from one source is connected to a different water source. In large and complex plumbing installations such as those found in a large hospital or a long-term residential care facility, there can be many hundreds of potential cross connections.

When a physical cross connection occurs, there is the potential for backflow to occur. Backflow is defined as:

- flow in a direction contrary to the normal or intended direction of flow; or
- the unintended flow of water from a potentially polluted source into a potable water supply.[53]

As the contamination of a drinking water supply via backflow from a polluted source (such as a sanitary drainage pipe or chemical injection system) has significant potential to cause serious illness or death, the PCA mandates the fitting of backflow prevention controls.

Such controls are generically referred to as 'backflow prevention devices' and are used to protect on-site water services (referred to as 'zone', or 'individual', protection) or the public water supply (referred to as 'containment' protection). This CRIS deals only with zone/individual protection, as this is the only aspect covered by the Plumbing Act.[54]

Zone/individual protection involves the installation of a backflow prevention device at the connection point of specified sections of a plumbing system within a building or facility. Such devices are all the more important in buildings that house vulnerable people with an increased risk of harm, such as nursing homes, aged care facilities, children's homes, hospitals and rehabilitation units.

[52] World Health Organisation and World Plumbing Council 2006, 'Health Aspects of Plumbing'

[53] Part 0 of Australian Standard *AS/NZS 3500 – Plumbing and Drainage*

[54] Containment protection is managed by water services providers and, as such, is outside the scope of the Plumbing Act and Regulations.

Reported backflow incidents

In 2015, the Australian Building Codes Board (ABCB) embarked on a research project in response to concerns about the approach to backflow prevention across Australia. A consultation paper published by the ABCB as part of the project[55] said the ABCB had received information to suggest there had been 31 backflow incidents between 1988 and 2014. Of those, 16 related to actual occurrences of backflow and 15 were reports of installations that had been designated as at risk if a backflow event were to occur.

The ABCB identified that in around a third of the reported backflow incidents, tanks and non-drinking water services were the source of the contamination. It also observed that around half of the incidents were caused by unintended cross connections. These included cases where a drinking water pipe was wrongly connected to a non-drinking water pipe.

While noting the paucity of hard evidence, the ABCB concluded that backflow incidents predominantly occur in industrial-type buildings and premises, where any contamination has the potential to cause serious harm or death.

Examples quoted in a separate report on cross connection control and backflow prevention published by the International Specialised Skills Institute Inc in February 2017[56] generally support the findings of ABCB research report.

Those examples involved backflow from a mortuary to the mains drinking water supply; water containing corrosion inhibitor flowing into the drinking water supply in an office building; and car wash recycled water and sewage flowing into the drinking water supply to drinks machines installed at a petrol service station.

PCA requirements for the installation and testing of backflow prevention devices

The PCA prescribes requirements relating to the installation of backflow prevention devices in each of the following Parts: B1 (cold water services); B2 (heated water services); B3 (non-drinking water services) and B4 (fire-fighting water services).

Parts B1 and B3 call up Australian Standard AS3500.1. Section 4 of that Standard specifies the requirements for the prevention of contamination of the drinking water supply and provides for the selection and installation of backflow prevention devices. Table 4.4.1 in AS3500.1 lists the types of devices that must be used in a water supply system. It requires the licensed plumber to select the device that corresponds to the degree of hazard (high, medium or low.)[57]

Clause 4.4.6 of Australian Standard AS3500.1 sets out the commissioning requirements for testable backflow prevention devices and requires that all such devices must be commissioned and tested (by a licensed plumber) after installation and prior to service.

Clause 4.4.6 further states that once commissioned and tested, backflow prevention devices should be maintained in working order and tested for operational function by a licensed plumber at intervals not exceeding 12 months. The testing must be performed in accordance with the requirements of Australian Standard 2845.3.

[55] Titled “Plumbing Code Development – Research Report – Backflow Prevention – Consultation Document” 2015

[56] Titled “Cross Connection Control and Backflow Prevention, Opportunities for Improvement in the Australian Plumbing Industry”.

[57] ‘High’ = potential to cause death; ‘medium’ = potential to endanger health; ‘low’ = potential to cause nuisance but does not endanger health or cause injury.

AS3500.1 is mandated in the Plumbing Regulations in WA. Accordingly, plumbers must carry out the commissioning, testing and maintenance work in accordance with the requirements of Table 4.4.1 and Clause 4.4.6 referred to above.

Issues

The important role that backflow prevention devices play in safeguarding the health and safety of the community means that it is vital to ensure that they are not only installed in accordance with the requirements of the PCA but are also properly maintained and (where required) regularly tested.

While the plumbing laws in WA deal adequately with the question of *who* is permitted to carry out that maintenance and testing work (and the technical standards to which that person must adhere), they do not mandate the frequency or interval. In other words, the plumbing laws require such work to be done by a licensed plumber but place no obligations on the owner/occupier of a property to establish a testing and maintenance program that would trigger the attendance of a licensed plumber to carry out that work.

Key plumbing industry stakeholders such as the Board, the MPGA and the Plumbing Institute of Australia Inc have long advocated for mandatory backflow testing and maintenance requirements to be placed on the owners and managers of buildings where there is a high risk of contamination to the water supply (for example laboratories, abattoirs and manufacturing facilities) and facilities housing vulnerable people (for example, nursing homes, rehabilitation centres and hospitals) to ensure that backflow prevention devices are appropriately maintained and regularly tested.

Queensland already has strict regulation in place around the maintenance and testing of backflow prevention devices. This was driven by a number of serious incidents in aged-care facilities in Queensland where backflow prevention devices had failed. There are no recorded cases of similar incidents in WA. However, the risk of it occurring is high and the consequences, should it occur, would be severe. Plumbers in WA have reported cases to plumbing inspectors where they have observed backflow prevention devices in poor states of repair in high-risk communal buildings. Examples include:

- a plumber reported that at some of the larger sites he attends (such as hospitals, hotels and shopping centres), individual devices are not being maintained, with the result that the internal springs have scale build up which inhibits the proper functioning of the device.
- a plumber reported that he has attended food markets, food processing facilities, healthcare and aged care sites where the owners service the containment devices at the boundary (because the water service provider requires them to do so) but only service around 50 per cent of the internal devices, even when the devices are leaky.

A decision to maintain the status quo in relation to the testing and maintaining of backflow prevention devices would undoubtedly avoid additional costs. However, it is arguable whether that should be the overriding factor in determining whether or not to broaden the scope of the plumbing laws to better control the risks associated with poorly maintained backflow prevention devices, particularly in buildings that house vulnerable people.

Proposal for consultation

A risk analysis conducted by the Department found that implementing requirements for facility owners/occupiers to carry out mandatory testing and subsequent maintenance (if necessary) of high and medium hazard backflow prevention devices would considerably reduce the risk of a backflow incident occurring. A copy of the risk analysis is attached at Appendix C.

It is therefore proposed to introduce duties in relation to specific types of high-risk buildings and situations to ensure that testable backflow prevention devices are maintained and tested in accordance with manufacturers' specifications and the schedule set out in Table 2.1 of Australian Standard AS 2845.3 *Field testing and maintenance of prevention devices*. This would require:

- inspection and testing to be carried out after installation, after maintenance/repair and at intervals of not more than 12 months (the testing must be carried out in accordance with the requirements of the Standard and the manufacturer's specifications); and
- the preparation of a test report which includes the type of test (i.e. annual, re-test or initial commissioning). The test report would be required to identify the type and serial number of the device, details of the owner/property, the inspection date and the result of the inspection.

As part of this proposal, property owners/mangers would also be required to keep records of the maintenance and testing programs they have put in place, and make those records available for inspection on request by a plumbing inspector.

The specific types of high-risk buildings to which this proposal would apply are:

- communal residential facilities;
- buildings that members of the public would normally use;
- buildings to which members of the public are permitted access; and
- buildings where employees are at risk (e.g. a manufacturing facilities, laboratories or abattoirs).

The above list captures those properties where the risk of harm is highest, but seeks to ensure that the reform does not impose an unnecessary degree of regulatory burden.

Impact analysis for backflow prevention devices

Although Marsden Jacob concluded that the benefits of this proposal may not sufficiently outweigh the additional costs it would impose, they recommended that further stakeholder consultation be undertaken to test their analysis and gather additional empirical evidence to assist in formulating a policy position on this issue. This CRIS seeks to gather such evidence from stakeholders.

Question for consultation

14. Would you support the introduction of a mandatory requirement that property owners/managers of high-risk buildings must test and maintain backflow prevention devices in accordance with AS 2845.3 and manufacturers' specifications? Please provide reasons for your view, together with any supporting evidence.

Temperature control devices

Under the plumbing legislation in WA, all new heated water installations and all replacement solar water heater installations used primarily for personal hygiene purposes in facilities and buildings for the aged, sick, children or the disabled must be fitted with a complying temperature control device that is adjusted to an outlet temperature not exceeding 45^{o}C.

Clause 1.9.2 of Australian Standard AS 3500.4.2015 requires that a thermostatic mixing valve (TMV) must be installed to regulate the heated water temperature.

An almost identical provision applies in relation to all other types of facility and building, albeit with a maximum temperature limit of 50^{o}C.

The purpose of these mandatory temperature controls is to reduce the risk of scalding, particularly when the water is heated by an uncontrolled heat source such as solar power.

A TMV is a valve that blends hot water with cold water to achieve a temperature that avoids scalding while still ensuring that stored heater water is kept at a sufficiently high temperature to protect against harmful bacteria such as legionella.

Given the importance of TMVs in protecting vulnerable people such as residents of nursing homes, aged care facilities and homes for the disabled, it is important that TMVs are properly maintained and regularly tested by appropriately qualified people.

Again, the plumbing legislation requires such work to be done by licensed plumbers but – as with backflow prevention devices – there is no requirement for owners or occupiers of premises to put in place an appropriate maintenance and testing program for TMVs installed on their premises.

There are reported cases in WA where injury has been caused by a failure in the operation of a TMV. The most significant incident occurred at a care facility in February 2015 and resulted in a quadriplegic person being seriously scalded. This incident occurred due to the failure of a TMV which had not been adequately serviced and maintained. The valve failed to close the heated water supply when there was a pressure loss on the cold water supply. The severity of the injury was exacerbated by the fact that the person's condition meant that he was unable to feel the very high temperature water whilst it was scalding him.

Given the obvious safety benefits associated with properly functioning TMVs, consideration is being given to whether to mandate the regular testing and maintenance of such devices in high-risk buildings in WA.

As with backflow prevention devices, a decision to maintain the status quo would avoid additional costs to the community and government. But again, it is arguable whether cost should be the determining factor where the safety of vulnerable members of the community is concerned. A risk analysis found that implementing requirements for owners/occupiers of high risk facilities to carry out mandatory testing and subsequent maintenance (if necessary) of TMVs would considerably reduce the risk of a scalding incident occurring. A copy of the risk analysis is attached at Appendix D.

It is therefore proposed to introduce legislation to require owners/managers of the following categories of high-risk facility to ensure that TMVs are kept in good condition and proper working order, in accordance with Australian Standard AS 4032.3 and manufacturers' specifications:

- aged-care residential accommodation (including nursing homes);
- health-care buildings;
- childcare centres, primary schools and secondary schools; and
- residential accommodation for the disabled.

It is also proposed that property owners/mangers be required to keep records of the maintenance and testing programs they have put in place and to make those records available for inspection on request by a plumbing inspector.

Impact analysis

In assessing the impact of this proposal, Marsden Jacob concluded that the benefits of introducing such requirements in relation to TMVs would be likely to outweigh the costs. It therefore recommended that a requirement for property owners/managers to put in place a maintenance and testing program for TMVs be implemented.

Questions for consultation

15. Do you support the proposal to require owners/occupiers of the above types of high-risk facility to put in place a maintenance and testing regime for TMVs, in accordance with manufacturers' specifications and Australian Standard AS 4032.3? Please provide reasons for your answer.
16. Are there any other plumbing safety devices besides backflow prevention devices and TMVs that you believe should be included in this proposal? If yes, please provide details.

4.2.7 Application of the PCA (Volume 3 of the National Construction Code)

Currently, the PCA covers the following scopes of work:

- Cold water services (Part B1 of the PCA)
- Heated water services (Part B2 of the PCA)
- Non-drinking water services (Part B3 of the PCA)
- Fire-fighting water services (Part B4 of the PCA)
- Sanitary plumbing systems (Part C1 of the PCA)
- Sanitary drainage systems (Part C2 of the PCA)
- Roof drainage systems (Part D1 of the PCA)
- Surface and subsurface drainage systems (Part D2 of the PCA)
- Heating, ventilation and air-conditioning systems (Part E of the PCA)
- On-site wastewater management systems (Part F1 of the PCA)
- On-site liquid trade waste systems (Part F2 of the PCA)

Of the above list, Parts B1, B2, C1 and C2 (water supply, sanitary and drainage plumbing) are called up in WA's plumbing laws. As such, the work referred to in each of those Parts must be performed by a licensed plumber who – in turn – must carry out the work in compliance with the performance requirements of the PCA.

As discussed in section 4.2.2 above, Part B3 (non-drinking water services) is proposed to be called up as part of the revisions to the scope of water supply plumbing work. This would mean that non-drinking water supply plumbing work would become licensed plumbing work in the same way as Parts B1 and B2.

Part F of the PCA (on-site wastewater managements systems) is currently regulated in WA via a combination of the plumbing laws, public health laws, waste management laws and the permit systems operated by sewerage service providers such as the Water Corporation. This is discussed further in section 4.2.7.2 below.

The remaining scopes of work in the PCA - fire-fighting (Part B4), stormwater (Part D) and heating, ventilation and air-conditioning (Part E) – are not called up in the plumbing laws in WA and are not therefore regulated as licensed plumbing work in this jurisdiction. In this regard, WA is consistent with the majority of Australian jurisdictions. As illustrated in the following table, only Victoria and Tasmania have adopted Parts B4 and D1 as regulated plumbing work. Part D2 has been adopted as plumbing work in Tasmania only; and Part E has been adopted as plumbing work in Victoria only.

PCA	**Adopted as regulated plumbing work**	**Not adopted as regulated plumbing work**
Part B4	VIC (with variations) TAS (exclude sprinkler fitting)	NSW, QLD, SA, NT, SA
Part D1	VIC (with variations) TAS (with variations)	NSW, QLD, SA, NT, SA
Part D2	TAS (with variations)	VIC, NSW, QLD, SA, NT, SA
Part E	VIC (with variations)	NSW, QLD, TAS, SA, NT, SA

It is also important to note that Parts B4, D and E of the PCA are, to a greater or lesser extent, also covered in the Building Code of Australia (BCA) which is called up in WA's *Building Act 2011*. This means that even though the work may not be licensed plumbing work in the same way as, say, drinking water supply work is, whoever is responsible for the work will nevertheless need to ensure that the appropriate technical standards in the National Construction Code are complied with.

A mapping exercise to identify the interaction between the PCA and the BCA in these areas indicates a degree of overlap and duplication between the two codes, particularly in regard to the standards for stormwater services (Part D of the PCA) and heating, ventilation and air-conditioning systems (Part E of the PCA). That being the case, it is not unreasonable to conclude that WA already applies the technical standards in Parts D and E of the PCA, albeit under the building work umbrella rather than as plumbing work that requires a plumbing licence. This is discussed in more detail in section 4.2.7.1 below.

Part B4

The situation in regard to Part B4 (fire-fighting water services) is less stark in that the mapping exercise indicates that while the fundamental aim of both the PCA and BCA is to ensure that appropriate standards are met to protect the safety and health of a building's occupants, they each focus on a different aspect of the process.

Specifically, the PCA applies to work carried out from the point at which the fire-fighting equipment connects to the water supply, whereas the BCA deals more with the triggers that determine whether or not a fire-fighting system is required and, if so, the type of system that must be installed. The different focus of each code also means that the PCA calls up some Australian Standards that are not referenced in the BCA.

As WA has not traditionally treated fire-fighting water services as plumbing work, such work is not required to be carried out by a person who holds a plumbing licence. Consequently, adoption of Part B4 of the PCA would mean that consideration would need to be given to whether a new licence class would need to be introduced under the plumbing legislation.

As this would represent a new layer of regulation, it is necessary to first identify whether the current absence of such a requirement is impacting on safety and health outcomes and, if so, whether the additional costs would be outweighed by the increase in benefits to the community.

To date, there is no clear evidence of any incidents in WA that can be attributed to the fact that Part B4 of the PCA does not apply in this jurisdiction. However, that is not to say that such evidence does not exist.

Accordingly, this CRIS seeks comment from stakeholders about whether there is a case for adopting Part B4 of the PCA as licensed work under the Plumbing Act.

Question for consultation

17. Do you believe that Part B4 of the PCA (fire-fighting water services) should be regulated as a branch of plumbing work in WA? If yes, please provide as much evidence as possible to support your view. This evidence should include specific examples of cases where issues have arisen because this type of work is not currently regulated as plumbing work.

4.2.7.1 Parts D and E of the PCA

The only jurisdiction to regulate the whole of Part D of the PCA (i.e. Part D1 and Part D2) is Tasmania[58]. Similarly, the only jurisdiction to regulate Part E of the PCA is Victoria.

In preparing for the release of the next edition of the NCC (NCC 2019), the ABCB has queried whether Parts D and E should remain in the PCA when only two jurisdictions apply them as regulated plumbing work. The reasoning behind the ABCB's thinking was that it is not logical to include in a national code scopes of work that are treated differently across jurisdictions.

[58] Victoria regulates Part D1 as plumbing work, but not Part D2. Tasmania regulates both D1 and D2 as plumbing work.

The ABCB's view was that a more logical approach would be for the provisions to be removed from the national code and relocated to the appendices as additions applicable in Tasmania and Victoria only (as applicable). Consistent with that conclusion, the public consultation draft of NCC 2019 published by the ABCB on 8 February 2018 proposes the deletion of Parts D and E of the PCA from 1 May 2019.[59]

In view of the ABCB proposal, along with the overlap between the PCA and BCA identified as part of the Department's mapping exercise and the fact that WA has never treated stormwater drainage services or heating, ventilation and air-conditioning work as regulated plumbing work, this CRIS does not contemplate amending the plumbing laws in this State to call up Parts D and E of the PCA. That said, should the ABCB ultimately decide not to proceed with the proposal to delete Parts D and E of the PCA in NCC 2019, the Department will review the situation.

4.2.7.2 Part F On-site wastewater management

Part F of the PCA consists of two sections – F1 and F2. Part F1 sets the technical standards for work comprising the design, construction, installation, replacement, repair or alteration of any part of an on-site wastewater management system. Part F2 of the PCA deals with the technical standards that apply to systems for the on-site treatment, conveyance and/or disposal of liquid trade waste.

Part F1 – Onsite wastewater management systems (OWMS)

An OWMS is a system installed within the boundary of a property to receive and treat wastewater generated on the premises and carry the resulting effluent to a drain or a re-use system. Such systems are used in locations that cannot be serviced by a reticulated sewerage system.

In WA, the only aspect of work involving an OWMS that currently falls within the scope of the plumbing laws is the installation of the drainage pipework from the point of discharge from the premises to the point of connection to the treatment system, such as a septic tank or an aerobic treatment unit. This type of work is classified as 'drainage plumbing work' in regulation 4 of the Plumbing Regulations and is work for which a plumbing licence is required.

All other aspects of work involving an OWMS, such as design, manufacture, installation/construction, operation and maintenance, is regulated via the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974 (the Health Regulations) administered by the Department of Health and local government authorities.

While there is no requirement in the Health Regulations that all work involving an OWMS must be carried out by licensed plumbers, there are strict rules around how the work must be performed and the technical standards that must be met. This is managed via a strictly-controlled process that requires approval to be obtained for the OWMS itself and for its installation or construction on site. Once the OWMS is installed, the owner of the premises to which it relates must obtain a permit to use the system. This permit is issued by the relevant local government authority following a mandatory inspection by an environmental health officer (EHO). The local government authority will not issue a permit to use an OWMS unless the EHO is satisfied that the OWMS has been properly installed and functions exactly as it should.

[59] The ABCB also proposes to delete Part F of the PCA on the same grounds. WA's position in regard to Part F is discussed in section 4.1.9.2 of this CRIS.

The technical standards that currently apply under the Health Regulations are largely based on Australian Standards *AS/NZS 1546 On-site Domestic Wastewater Treatment Units* and *AS/NZS 1547 On-site Domestic Wastewater Management*. Those same Australian Standards are also called up in Part F1 of the PCA.

As a consequence of the passing of the *Public Health Act 2016*, the Department of Health is reviewing the Health Regulations to determine the amendments that need to be made pursuant to the new Act. Their aim is to have those amendments in place by 2021.

The Department is currently in discussion with the Department of Health as part of that review. The discussions are focused on how Part F1 of the PCA can be incorporated into the regulatory process for OWMS in WA.

Linked to that discussion is the question of whether there is a case for broadening the scope of drainage plumbing work in the Plumbing Act to include the installation/construction of the apparatus for the on-site treatment of sewage. This would have the effect of requiring all such work to be carried out by a licensed plumber in accordance with the Plumbing Act and Plumbing Regulations.

Some of the benefits of making such work licensed plumbing work would be:

- the work is a continuation of the drainage plumbing system and therefore having it all done under the direction and control of one entity would minimise any grade or alignment conflicts;
- the work standard would be guaranteed for a six-year period under the Plumbing Regulations;
- the existing Local Government Authority (LGA) approval process could be simplified by linking it to the issuance of a certificate of compliance by a LPC; and
- EHOs would have more flexibility in regard to their inspection regimes as they could place reliance on the certificate of compliance process under the plumbing laws and thus potentially reduce the number of physical inspections they carry out.

Although this matter is currently being explored in more depth in a consultation paper released by the Department of Health, the Department is keen to receive comment from industry and other interested stakeholders on the specific question of whether work to install/construct apparatus for the on-site treatment of wastewater (such as septic tanks and aerobic treatment units) should become licensed plumbing work.

Question for consultation

18. Please tell us whether you would support an expansion to the scope of drainage plumbing work to include the installation/construction of apparatus for the on-site treatment of sewage, such as septic systems and aerobic treatment units. Please provide reasons for your answer.

Part F2 (On-site liquid trade waste systems)

In WA, liquid trade waste is currently regulated partly via the plumbing laws, partly via the waste management laws administered by the Department of Water and Environmental Regulation and partly via the permit systems operated by sewerage service providers such as the Water Corporation.

The plumbing laws apply to the extent that the drainage plumbing system connected to a trade waste arrestor is 'drainage plumbing work'. This means that all such work must be carried out by an appropriately licensed plumber in accordance with the technical standards called up in the PCA.

The question as to the sorts of liquid trade waste that can be discharged into the sewerage system, and how that is to be done, is the responsibility of the sewerage services providers and is not covered under the plumbing laws.

As the current arrangements for dealing with liquid trade waste in WA appear to be operating well and are not inconsistent with the technical requirements in Part F2 of the PCA, it is not intended to make any changes to the plumbing laws in relation to the management of on-site liquid trade waste systems at this point in time.

4.2.8 PROPOSAL EIGHT: Plumbing repairs by private homeowners and occupiers

ACIL Allen recommended that the Plumbing Regulations be amended to exempt specified basic plumbing repairs carried out by private people in their own homes or by non-plumbers on their behalf.

This would be consistent with other States and would align the legal position with the Board's non-prosecution policy for homeowners/occupiers in regard to such work. ACIL Allen discussed various ways in which the exemption could be achieved but did not come to a firm conclusion about which one was preferable.

As the following table demonstrates, WA and the Northern Territory are the only jurisdictions that do not have some level of exemption for basic plumbing work carried out by private homeowners/occupiers in their own homes or non-plumbers on their behalf.

	Scope of non-licensed work
NSW	The following plumbing work can be carried out by owners or occupiers of a dwelling, or a person authorised to carry out the work by the owner or occupier of the dwelling who does not receive payment or other consideration for carrying out the work: • repairing a tap or shower head in a dwelling (other than a repair of a thermostatic mixing valve, tempering valve or backflow prevention device); and • installing water-restricting or flow-regulating devices to tap end fittings (including shower heads) in a dwelling.

	Scope of non-licensed work
VIC	Plumbing work able to be carried out by any non-plumbers: • Replacement of 3 star shower heads; • The repair or replacement of tap washers and other minor tap repairs in a dwelling; and • Clearing of blockages in sanitary and drainage pipes using existing inspection openings and removable grates.
NT	No exemptions in the legislation. Historically, no action is taken when tap washers are replaced by home owners.
SA	Plumbing work able to be carried out by any non-plumbers: • the installation, alteration, repair, maintenance or disconnection of a cold water pipe not exceeding 25 mm in diameter except where the pipe is in or on a building; • the installation, alteration, repair, maintenance or disconnection of a non-testable backflow prevention device; • the replacement, alteration, repair, maintenance or disconnection of domestic tapware; and • the clearing of blockages in pipes not exceeding 50 mm in diameter (or associated traps) installed to convey wastewater to sanitary drains.
TAS	Plumbing work able to be carried out by an owner or a competent person contracted by the owner: • Maintenance, repairs or replacement of existing tapware; • Replacing or repairing a shower head or hose; • Maintenance and repairs to water closet cistern outlet and inlet valves; • Replacing a domestic water filter cartridge; • Removing/replacing ground level inspection openings on sanitary drains. • Unblocking toilets, showers or other plumbing fixtures with a handheld plunger.

	Scope of non-licensed work
ACT	Plumbing work able to be carried out by any non-plumbers: • removing a washer or something similar from a tap or valve, or repairing or fitting the washer or the similar thing, unless the removal, repair or fitting involves damage to part of— ▪ a water service; or ▪ a hot-water system; or ▪ an irrigation system; or ▪ a fire sprinkler system; • inspecting a sanitary drain, clearing a blockage or obstruction of the drain, or cleaning the drain, unless the inspecting, clearing or cleaning involves damage to, or removal of part of, the sanitary drain or is done for reward; or the operation of a grey-water diverter; and • inspecting sanitary plumbing, clearing a blockage or obstruction of the plumbing or cleaning the plumbing unless the inspecting, clearing or cleaning involves damage to, or removal of part of, the sanitary plumbing or is done for reward.
QLD	Plumbing work able to be carried out by any non-plumbers: • cleaning or maintaining ground level grates to traps on sanitary drains; • replacing caps to ground level inspection openings on sanitary drains; • maintaining an above or below ground irrigation system for the disposal of effluent from an on-site sewerage facility or greywater use facility; • installing or maintaining an irrigation or lawn watering system downstream from an isolating valve, tap or backflow prevention device on the supply pipe for the irrigation or lawn watering system; • replacing a jumper valve or washer in a tap; • changing a shower head; • replacing, in a water closet (WC) cistern, a drop valve washer, float valve washer or suction cup rubber; and • replacing a domestic water filter cartridge.

Proposal for consultation

The Department is seeking comment about whether the following types of work should be allowed to be carried out by private homeowners/occupiers or non-plumbers engaged by a private homeowner owner/occupier:

- Repairing or replacing a shower head;
- Repairing a tap or tap mixer valve;
- Replacing an inlet or outlet washer in a toilet cistern;
- Replacing a domestic water filter cartridge; and
- Clearing a blocked waste pipe by the use of a plunger, flexible hand rod or hand-held water hose only (that is, by non-mechanical and non-electrical means).

Impact analysis

Marsden Jacob concluded that the current legislation potentially imposes an unnecessary burden on homeowners by requiring them to hire a plumber for minor maintenance activities where both the skill level required and the risk to the community are low. Marsden Jacob also noted that to retain the legislation but have a policy of not enforcing it did not align with the principles of good regulation.

Marsden Jacob considered the main impacts of this change to be increased choice and lower costs for owners/occupiers and, potentially, less minor plumbing work for plumbers.

In discussions with industry stakeholders, Marsden Jacob was informed that there would be health and safety consequences for the community if the laws were to be relaxed as proposed. However, Marsden Jacob did not find sufficient evidence of health and safety incidents related to non-compliant work of the type under consideration to be able to assess those risks.

Similarly, Marsden Jacob found no evidence to suggest there would be significant public health risks in relation to the narrow scope of work that is contemplated.

Accordingly, this CRIS seeks input from stakeholders to assist the Government in formulating a position on this issue.

Questions for consultation

19. Do you support the proposal to allow private homeowners/occupiers, and non-plumbers engaged by private homeowners/occupiers, to carry out certain basic plumbing tasks in their own homes? Are there risks to consumer safety if this proposal is implemented? If yes, please explain what those risks are.
20. If you support the proposal, do you agree with the proposed scope of work to be covered by the exemption? If no, please say why and provide evidence to support your view.

4.2.9 Regulating modular plumbing installations (pods and modules)

In recent times, there has been an increase in the use of pre-fabricated bathroom ‘pods’ or ‘modules’ (and to a lesser extent, kitchen modules) in residential construction. In such cases, entire bathrooms or kitchens are manufactured off site – often overseas – and transported to site as complete modules to be connected in-situ by a local plumber. While this is a less costly and more efficient method of construction for builders and developers, it causes issues in relation to the compliance notification process under the plumbing laws.

The ABCB has been considering how best to respond to the issues posed by pre-fabricated plumbing installations and has recently clarified its policy around the WaterMark certification scheme insofar as it applies to ‘pods’ or ‘modules’.

As a result, ‘purpose–built bathroom modules’ are treated as a listed product on the WaterMark Schedule of Specifications and are authorised for use in a plumbing or drainage installation in Australia, subject to an evaluation to Technical Specification WMTS-050 by a WaterMark Conformity Assessment Body, and certification to WaterMark Level 1.

This means that all ‘pods’ or ‘modules’ that have received such certification can be constructed by people who are not themselves licensed plumbers. The only time a licensed plumber is required to be involved is when the WaterMark-certified module is installed and connected on site, similar to the installation of a WaterMark certified water heater.

However, the ABCB has come to a determination that ‘prefabricated bathroom installations’ assembled off site can also be accepted as ‘regulated work’ by the authority having jurisdiction, in accordance with the requirements for regulated work within that jurisdiction, and will not need to be WaterMark certified as a prefabricated module’.

In this scenario, a plumber in WA is required under the Plumbing Regulations to ensure that the work he or she carries out within a pod or module meets the technical standards of the PCA and to certify their work accordingly prior to or in conjunction with installation on site if they have carried out both.

These decisions do not take into account pods or modules constructed overseas or interstate, which are outside of the regulator’s jurisdiction. Also not taken into account are:

- prefabricated and pre-plumbed kitchen and laundry modules;
- other types of pre-fabricated and pre-plumbed units installed within buildings; and
- pre-fabricated and pre-plumbed transportable buildings.

There are many types of prefabricated and pre-plumbed units and many instances where they are constructed outside of the jurisdiction of the regulator. Currently in WA the LPC who connects to these units takes responsibility for ensuring that the plumbing within the unit complies with the PCA.

Possible ways of addressing the issues are:

- WaterMark certification for prefabricated and pre-plumbed units;
- Licensing of overseas or interstate suppliers of such products;
- A check and certification process of pre-plumbed units by LPCs; or
- A combination of the above.

Solutions may be assisted by expanding the definition of 'Purpose built bathroom modules' to include other types of pre-fabricated and pre-plumbed units, i.e. 'Purpose built pre-plumbed building units'

Representatives from the plumbing industry, together with the Board, have raised concerns about the general principle of allowing non-plumbers to fabricate plumbing installations, and about the application of the WaterMark certification scheme to complete bathrooms or kitchens rather than the individual components that make up such installations. They have also raised concerns around instances where the installing plumber carries the liability for the work done by non-plumbers involved in the manufacture of the 'pod' or module.

Plumbing regulators nationally are engaging in developing a consistent policy response to this emerging issue. To assist in developing that response, the Department is keen to receive comment from Western Australian stakeholders about:

1. The extent to which pre-fabricated bathroom and kitchen 'pods' are being used in the residential construction sector in WA;
2. What issues plumbers are experiencing with this emerging trend; and
3. What solutions stakeholders would like to see implemented by plumbing regulators.

4.3 Reform area three – The licensing regime

As outlined in section 3.2 of this CRIS, ACIL Allen did not recommend major changes to the current licensing arrangements for plumbing but did make a number of suggestions about how things might be made more efficient.

ACIL Allen also commented on the role of designers in the context of the introduction of the PCA, recommending that those who verify *Performance Solutio*ns should be authorised to do so.

While a number of ACIL Allen's recommendations about the licensing arrangements for plumbing have already been implemented, others remain to be addressed. This section of the CRIS discusses the various options open to the Government in relation to those outstanding recommendations.

Also discussed in this section are two issues that were not raised in the ACIL Allen final report but which the Department believes need to be addressed. Those are:

- the scope of work covered by a restricted plumbing permit issued to licensed electricians or gas permit holders under regulation 13A of the Plumbing Regulations; and
- the arrangements for transitioning from an apprentice plumber to a licensed tradesperson.

4.3.1 PROPOSAL NINE: Authorisation of designers and verifiers

Background

The primary technical standard for plumbing and plumbing work in WA is the PCA. The PCA sets the minimum technical standards – referred to as 'Performance Requirements' – that plumbers must meet when carrying out plumbing work.

Compliance with the Performance Requirements of the PCA can be achieved via:

(a) a solution which complies with the 'Deemed-to-Satisfy' provisions;

(b) a Performance Solution; or

(c) a combination of (a) and (b).

Broadly speaking, work that complies with an Australian Standard or another document that is referenced in the PCA will meet the Deemed-to-Satisfy provisions and thus achieve compliance with the PCA under (a) above.

Performance Solutions are intended to provide the plumbing industry with the flexibility to respond more quickly to changes in the industry and come up with innovative approaches to plumbing and drainage installations and projects that may not be catered for under the Deemed-to-Satisfy provisions.

Issues

ACIL Allen recommended the introduction of a licence for plumbing designers who verify Performance Solutions. That recommendation was on the basis that the person signing off on a Performance Solution needs to have appropriate qualifications and expertise in design.

However, it is important to note that although Performance Solutions are often more complex than installations designed in accordance with Deemed-to-Satisfy provisions, it is not necessarily the case that installations designed in accordance with the Deemed-to-Satisfy provisions are 'simple'.

Given this, the potential scope of work for a plumbing designer and/or verifier under consideration in this CRIS includes not only Performance Solutions, but also the design of plumbing installations in any complex building, regardless of whether a Performance Solution is included. This is discussed below.

Verification of a Performance Solution

Before a Performance Solution can be installed, its design must be assessed to ensure it will meet the necessary performance requirements set out in the PCA. The assessment method used to make that determination must be chosen from the four options set out in Part A of the PCA. Those options are:

(a) comparison with the Deemed-to-Satisfy Provisions (i.e. the Australian Standards referenced in the PCA);

(b) *verification methods* (which could include calculations and testing);

(c) *expert judgment*; or

(d) e*vidence of suitability* as set out in Part A2.2 of the PCA.

The term '*verification method*' is defined in the PCA as a test, inspection, calculation or other method that determines whether a performance solution complies with the relevant performance requirement(s).

'*Expert judgement'* means the judgement of a person who has the qualifications and experience to determine whether a plumbing or drainage solution complies with the Performance Requirements.

'*Evidence of suitability'* may be in the form of one or a combination of the following:

(a) A report issued by a '**recognised expert**' showing that the material, product, design, construction and installation has been submitted to the tests listed in the report, and which sets out the results of those tests and any other information that demonstrates its suitability for use in the plumbing or drainage installation.

(b) A certificate from a **professional engineer or other appropriately qualified person** which:

   a. certifies that a material, product, design, form of construction or installation complies with the requirements of the PCA; and

   b. sets out the basis on which certification is given and the extent to which relevant specifications, rules, codes of practice or other publications have been relied upon.

(c) Any other form of documentary evidence that correctly describes the properties and performance of the material, the form of construction and method of installation, and which adequately demonstrates its suitability for use in the plumbing or drainage installation in question.

Aside from the reference to professional engineers, the PCA does not specify who is deemed to have 'expert judgement' or who may be considered to be a 'recognised expert' or an 'appropriately qualified person' to carry out assessments of Performance Solutions. This is largely because the skills and experience required of the assessor will vary depending on the nature and complexity of the Performance Solution. Consequently, each jurisdiction must develop its own definitions.

Due to the way the Plumbing Act in WA is currently structured, the only person who can assess and verify a Performance Solution under the PCA is a LPC. While this ensures an appropriate level of competency in terms of the installation of the performance solution, it does mean that in cases where the solution has been designed by someone other than the installing plumber, there is no recourse under the plumbing laws for action to be taken against the designer should the design fail. In such cases, it is the installing plumber who takes on the responsibility and liability through the certificate of compliance that he or she must submit after installing the Performance Solution. As ACIL Allen pointed out in their review report, this can place an unfair burden on the installing plumber.

This issue has been addressed in differing ways by plumbing regulators in other parts of Australia. New South Wales and Victoria take the same approach as WA by leaving it to the installing plumber to ensure that appropriate steps have been taken to demonstrate that the Performance Solution will meet the performance requirements of the PCA.

In contrast, Queensland requires designers to hold a permit issued by the plumbing regulator. Similarly, Tasmania has a licence class for plumbing certifiers.

South Australia does not stipulate who may verify Performance Solutions but states that the verifier must be an expert who has the qualifications and expertise to verify a Performance Solution. That said, in South Australia the plumbing regulator does assess and verify every Performance Solution before it is installed.

Question for consultation

21. Do you think there should be regulations prescribing who can **verify** a Performance Solution? If yes, what are the qualifications or other requirements that would make a person suitable for verifying a Performance Solution?

Design of plumbing installations for complex buildings

Issues

Plumbing design services range from the development of complex engineering and hydraulic solutions for large commercial buildings such as apartment blocks and shopping centres, to the more routine types of plumbing installation that are found in single storey houses.

The current definitions of 'plumbing work' in the Plumbing Act and the Plumbing Regulations do not specifically refer to design work. However, as licensed plumbers must carry out plumbing work in accordance with the technical standards which themselves cover design, it is indirectly regulated via the technical compliance process that LPCs are required to follow.

The advent of the PCA and, with it, the introduction of the concept of outcomes-based Performance Solutions for the more complex types of plumbing project, means it is necessary to review the role of designers of plumbing installations and to consider including 'design' as a specific branch of plumbing work in the new legislative framework. This would have the effect of making the legislation much more transparent in relation to the regulation of plumbing design work.

If design work is included in the definition of plumbing work, consideration also needs to be given to the licensing requirements of those permitted to perform design work.

WA's experience to date

Since the introduction of the PCA in WA on 1 May 2015, a total of 22 notices of intention have been submitted in relation to performance solutions. This small number has enabled the Board's technical officers to take a detailed look at the plans and specifications for each notified project and to monitor the installation work as it progresses. While there have been minimal issues to date, plumbing inspectors have indicated that the work they are doing with contractors and designers to ensure their designs are in accordance with the PCA can be extensive. Further, the potential for licensed plumbing contractors to be responsible for plumbing installation failures resulting from the incorrect design by other persons is still apparent.

Deemed-to-Satisfy solutions are more widely used than performance solutions and are becoming more and more complex. The Board's plumbing inspectors are coming across an increasing number of cases where complex 'Deemed-to-Satisfy' plumbing installations have been designed by inexperienced persons. Subsequently, some designs have been found not to be in accordance with the prescribed standards by inspectors or the plumber whose job it is to carry out the installation. Examples include the following:

- Non-WaterMark certified filtration equipment specified and installed in the drinking water service on several major hospital projects.
- Non-drinking water service specified, provided and installed for a heated water service in a major apartment complex in Perth (in breach of the PCA).
- Pumped sanitary and drainage discharge systems designed and installed on many major projects where a low or no maintenance graded system could have been installed if a well thought out planning and design process had been adopted.

- Drinking water supply tanks designed and installed with a common wall to a non-drinking water supply tank in three large apartment projects in the CBD where a double partition wall with a spacing is required to be installed to eliminate any cross contamination possibility.
- Incorrectly designed sanitary stack systems in multi-storey apartment buildings potentially leading to loss of trap seals allowing vermin, insects and sewer gases into the building.

Given the incidence of problems such as those listed above where inefficient or non-compliant designs have been identified at the installation stage or, worse, following completion of the project, this CRIS canvasses whether any regulation pertaining to designers should cover not just designers of Performance Solutions but also designers of 'Deemed-to-Satisfy' installations on the more complex plumbing projects.

In this context, a "complex plumbing project" would be one relating to a building in classes 2 to 9 of the building classification system used in the NCC. This would exclude single dwellings, small communal buildings such as hostels and guesthouses, and non-habitable buildings and structures.

Options for regulating design and verification services for 'performance solutions' and 'complex buildings'

There are several options that could be considered for the regulation of plumbing designers and verifiers. These are discussed below.

Option one – Self-assessment

As the fundamental issue is to ensure that a design complies with the PCA, the simplest way to address the problem may be to provide in regulation that a person who designs and/or verifies a plumbing installation must ensure (prior to installation) that the solution will comply with the PCA. This would obviate the need for any regulation around who can be a plumbing designer or verifier and would simply focus on the required outcome (i.e. compliance with the PCA). In a practical sense, this replicates the current approach in WA but with the added benefit of ensuring that both the designer and the installing plumber have a shared responsibility for ensuring overall compliance with the PCA. This would also address ACIL Allen's recommendation that the responsibility for any failure relating to the design of an installation should rest with the designer.

Option two – Competent person

The second option adds a little more prescription to Option one by amending the Plumbing Regulations to add that the designer and verifier must be a 'competent person'. The term 'competent person' is used in the Occupational Safety and Health Regulations 1996 and is defined very broadly in those regulations as: *"in relation to the doing of anything, a person who has acquired through training, qualification or experience, or a combination of those things, the knowledge and skills required to do that thing competently."*

There is no reason why a similar construct, supported by guidance material, could not be used in the Plumbing Regulations.

This option imposes little in the way of regulatory burden but does recognise that designing and verifying plumbing installations is work that requires competency and expertise.

Option three – Authorisation

The third option increases the level of prescription still further by designating specific categories of person as being 'authorised' to design and verify plumbing installations. This could be achieved by listing the categories in the Plumbing Regulations. For example, the Plumbing Regulations could list the following as 'authorised persons' for the purposes of performing plumbing design and plumbing design verification work in WA:

a. Licensed plumbing contractors
b. Hydraulic consultants
c. Practicing engineers with a hydraulics specialisation
d. Practicing architects with a hydraulics specialisation
e. Any other person specifically authorised by the regulator

This is still a relatively 'light touch' approach in terms of regulatory burden but would provide clarity as to who is permitted to design and verify plumbing installations.

Option 4 – Licensing

The most costly and 'regulation-heavy' option is to limit plumbing design work and plumbing design verification work to people who have been licensed by the plumbing regulator to carry out such work.

Because each person would be assessed on an individual basis, this would ensure there is tight control around who is permitted to design and verify performance solutions and complex plumbing installations. However, it would impose costs on industry and government and it is arguable whether those costs would be outweighed by the benefits that would accrue from such tight regulatory control.

Conclusion

While it is difficult to identify sufficient reason to implement a licensing category specifically for designers of plumbing installations for complex buildings and verifiers of Performance Solutions, there does appear to be a case for some level of regulatory oversight in both cases. That being so, the Department is keen to receive comment from stakeholders on this topic.

Questions for consultation

22. Do you think there should be regulations prescribing who can design a plumbing installation in a complex building?
23. If you answered yes to question 21, should different levels of competency be required, based on the complexity of the project?
24. Are there any types of projects where a designer should **not** need to have particular competencies or qualifications?
25. Should a LPC be permitted to design a project at any level of complexity?
26. Of the four options presented above for the regulation of plumbing designers and verifiers, which do you prefer, and why?
27. Is there an alternative option you would like considered? If yes, please provide details.

4.3.2 PROPOSAL TEN: Should a class of 'business licence' be introduced?

As discussed in Section 3.2.2 above, ACIL Allen recommended extending the licensing scheme to include a class of plumbing licence for companies and partnerships. They saw no reason why a plumbing business could not be operated by a non-plumber (so long as the plumbing work itself is carried out by a licensed plumber) and argued that the current arrangements were a barrier to entry into the plumbing industry. They therefore recommended that a business licence model akin to that which was proposed under the National Occupational Licensing Scheme should be introduced.

ACIL Allen was not specific in identifying the benefits that might accrue from a business licence model, saying only that it would remove what they regarded as an existing barrier to entry into the plumbing industry.

Impact analysis

In assessing the impact of introducing a business licence category, Marsden Jacob noted that although the current practice in the Plumbing Regulations of limiting plumbing licences just to natural persons is different to that which applies in building and electrical work in WA, it does align with the arrangements for gasfitters. They also noted that WA's current 'natural person' approach is the same as in Victoria, but out of step with New South Wales and South Australia.

The modelling used by Marsden Jacob in assessing the impact of a new business licence category assumed that only large or medium-sized businesses would be likely to take up the business licence option. On that basis, they calculated that around 15% of the number of plumbing contractor licences currently on issue would convert to a business licence. Their estimate as to the cost of implementing the new type of licence was $2.46 million, or $289 per entity per annum.

Marsden Jacob acknowledged that the potential beneficiaries of the change would be consumers, the broader industry and business licence holders (to the extent that the business licence would be a preferable arrangement for them). However, they had difficulty in seeing how those benefits would be realised. In large part, that was due to a lack of clarity around how the responsibilities and liabilities associated with running a plumbing business and performing plumbing work might change under this reform.

The uncertainty around the benefits associated with the introduction of a business licence meant that Marsden Jacob was unable to determine whether the corresponding costs would be outweighed. On that basis they did not recommend a reform to introduce a business licence.

In the period since Marsden Jacob undertook its cost benefit analysis, the Government has announced a review of business licensing in WA. This review is being conducted by the Economic Regulation Authority (ERA). In view of that, it has been decided to defer further consideration of a business licence for plumbing, pending the outcome of the ERA review.

4.3.3 PROPOSAL ELEVEN: Remove business training as a licensing prerequisite

ACIL Allen recommended that applicants for a plumbing contractor's licence should no longer be required to undergo business training. Their view was that business skills are not a relevant consideration in the context of safeguarding public health and thus should not be a condition for obtaining a plumbing licence.

Impact analysis

In conducting the cost benefit analysis for this recommendation, Marsden Jacob noted that business training is not specifically mandated in the Plumbing Regulations. Rather, it is contained in a Board policy determined in accordance with the Board's discretion under clause 2 of Schedule 3 of the Plumbing Regulations to specify the training requirements for licence applications.

Marsden Jacob also noted that in requiring applicants to undertake business training, WA is no different to any of the other jurisdictions, all of whom require some level of business training.

For the purposes of conducting the cost benefit analysis for this particular reform, Marsden Jacob assessed the following two options:

- Option 1 - maintain the status quo (i.e. maintain the current drafting of the Plumbing Regulations whereby the Board sets the policy for the training course).
- Option 2 - constrain the Board's discretion so as to align the training requirements with the objects of the Plumbing Act, namely the protection of public health.

The results of Marsden Jacob's assessment indicated that a net benefit would be achieved from the removal of the requirement to undergo business training. However, the results involved relatively small amounts.

Marsden Jacob also said it was unclear whether the three business units currently mandated by the Board do in fact result in a better service to consumers.

Marsden Jacob therefore recommended that the current mandatory requirement for business training be removed. However, they added that there was no reason why the Board could not retain the business course units as optional, non-mandatory contributors to certification.

Question for consultation

28. Do you agree that the requirement to undergo business training should be removed as a criterion for obtaining a plumbing contractor's licence? If not, why not?

4.3.4 PROPOSAL TWELVE: Insurance requirements for LPCs

ACIL Allen noted that, unlike Victoria, WA does not require licensed plumbing contractors to carry indemnity insurance. They viewed mandatory insurance as a valuable consumer protection measure and recommended that it be introduced under WA's plumbing laws.

Impact analysis

In their report, ACIL Allen made references to both public liability insurance and professional indemnity insurance but it was not entirely clear whether they were advocating for both types of insurance to be mandatory, or just one or the other.

Marsden Jacob therefore considered two possible options for assessment:

- Option one – maintain the status quo.
- Option two – introduce a requirement for both public liability insurance and professional indemnity insurance as a licence condition.

In relation to public liability insurance, Marsden Jacob concluded that the introduction of a mandatory requirement would have only a limited impact, as that form of insurance is already held by almost all plumbers. They estimated the net cost of making it compulsory to be $1.25 million (net present value) over a 20-year period.

In contrast, they found that a requirement to hold professional indemnity insurance would impose significant additional costs to industry. The net cost of making it compulsory was estimated to be $3.24 million (net present value) over a 20-year period. However, they pointed out that the exact scale of the costs would depend on the detail of the requirement, for example the level of insurance, the excess and any limitations on the policy.

From the analysis Marsden Jacob conducted, they were able to quantify the costs to the plumbing industry of introducing mandatory insurance but could not easily identify the corresponding benefits. As a result, their overall conclusion was that making insurance compulsory might be perceived to be adding red tape, as the requirement adds to the cost of running a business but brings limited identifiable benefits.

Marsden Jacob therefore recommended that this reform not be implemented. However, they commented that if this change is pursued, the Department should investigate an approach that adopts a scaling mechanism, or thresholds above which insurances must be held, to ensure that smaller businesses are not unduly burdened by insurance premiums for higher levels of cover.

Question for consultation

29. Do you support the proposal not to require LPCs to carry public liability insurance and professional indemnity insurance as a condition of their licence? If not, please tell us why you think mandatory insurance should be introduced for LPCs.

4.3.5 PROPOSAL THIRTEEN: Scope of work under a RPP

On 7 October 2005, the Plumbing Regulations were amended to allow licensed electricians and gasfitters to apply for a RPP to be able to carry out like-for-like changeovers of water heaters. A reciprocal arrangement for licensed plumbers was implemented in the Electricity (Licensing) Regulations 1991.

In 2007, the Board resolved to close the RPP scheme to new entrants with effect from 1 July 2007. That decision was reversed in January 2015 at the direction of the then Minister for Commerce on the grounds that it was unreasonable to expect a consumer to have to engage both a licensed plumber and a licensed electrician to do a job that could be done safely by one or the other.

At the time of developing the amendments to the Plumbing Regulations to reinstate the scheme, the Board raised concerns about the scope of work permitted to be carried out under a RPP. Specifically, the Board was concerned about whether it was appropriate for non-plumbers to be doing changeovers of storage water heaters when the work would involve dealing with tempering valves. The Board's preference was for the scope of work covered by a RPP to be restricted to instantaneous water heater replacements only, as these are generally temperature limited at the water heater outlet.

In light of the Board's concerns it was agreed that the Department would carry out an audit of restricted plumbing permit holders to check the quality of the work they were performing. The audit was undertaken in late 2015 and involved inspecting 34 water heater replacements carried out by nine randomly selected restricted permit holders. Two issues were identified as a consequence of the audit.

Issue One – Use of flexible connectors

Currently, the Plumbing Regulations do not allow a restricted plumbing permit holder to carry out a changeover if the use of a flexible connector is required.

It was identified that the prohibition on the use of flexible connectors by restricted permit holders is restrictive and unnecessary in the case of instantaneous water heaters where changes in technology and manufacturing practices ensure that fit-for-purpose flexible connectors are available. For example, some instantaneous gas water heaters are provided with flexible connectors from the manufacturer.

Issue Two – Replacement of isolation valves

Currently, the Plumbing Regulations do not allow a restricted plumbing permit holder to carry out a changeover of a water heater if a change to the existing pipes is required. The audit revealed that some permit holders had replaced isolation valves as part of a changeover. These valves were found to have been replaced either because they were incorrect (not full flow for instantaneous water heaters) or because the isolation valve was not in working order. In the majority of cases where the isolation valves had been replaced or needed to be replaced, the pipework needed to be re-configured, which is currently not permitted by a restricted plumbing permit holder under the Plumbing Regulations.

As both Issue One and Issue Two significantly affect the usefulness of the RPP and undermine the purpose of the reciprocal arrangement with the Electrical Licensing Board, it is appropriate that they be addressed.

Options for consultation

There are five ways in which the issues identified by the audit could be addressed. These are described below. All five options involve amending the Plumbing Regulations to enable the RPP scheme to operate more effectively and in line with the original policy intent. Option One involves the least amount of change; Option Five involves the greatest amount of change.

Option one

Amend the Plumbing Regulations to allow a restricted plumbing permit holder in the course of replacing a water heater, to install an approved flexible hose connector in circumstances where the plumbing standards allow.

Option two

Amend the plumbing regulations as per option 1 and replace a water heater isolation valve.

Option three

Amend the Plumbing Regulations as per Option 2, and replace a minimal amount of pipework.

Option four

Amend the Plumbing Regulations as per Option 3, and alter a relief valve overflow pipe to meet the required standards.

Option five

Amend the Plumbing Regulations as per Option 4, and replace a tempering valve.

Questions for consultation

30. Do you agree that the scope of work permitted under a restricted plumbing permit should be amended? If no, please tell us why not.
31. If you answered yes, please tell us which of the options above you would prefer, and why.

4.3.6 PROPOSAL FOURTEEN: Transition from apprentice to tradesperson

Section 3.2.5 of this CRIS highlighted an issue with the way the transition from plumbing apprentice to licensed tradesperson is dealt with in the Plumbing Regulations. The issue arises as a consequence of the way the term ‘apprentice’ is currently defined and means that there is a gap between when an apprentice completes his or her training contract and when he or she applies for and receives a tradesperson’s licence. If he or she carries out any plumbing work during that gap, they are effectively doing unlicensed work and are thereby committing an offence.

The Board has recognised the anomaly and currently operates a policy of not prosecuting graduate plumbers in such circumstances, provided that they apply for their tradesperson's licence within 14 days of receiving their Certificate III in Plumbing qualification. However, this is not a satisfactory long-term solution and a regulatory fix is required.

Proposal for consultation

The simplest way to resolve the issue is to amend the Plumbing Regulations to provide that an apprentice who has successfully completed his or her training contract may carry out plumbing work (under the direction and control of a licensed plumbing contractor or a licensed tradesperson operating under the direction and control of a licensed plumbing contractor) until either:

(a) the graduate plumber gains his or her tradesperson's licence; or

(b) a period of (say) 2 months expires from the time the training contract was successfully completed.

This would allow graduating plumbers to work legally from the day they graduate. It would be expected that during the 'grace period' specified in (b), the graduate plumber would submit an application for a tradesperson's licence. If he or she fails to do that, any plumbing work carried out after the end of the 'grace period' would be unlicensed plumbing work for which he or she may be prosecuted.

Impact analysis

As this proposed change is administrative in nature and seeks to address a technical flaw in the current regulatory arrangements it is not expected to have any adverse impacts.

Question for consultation

32. Do you agree that a 'grace period' of two months is appropriate? If no, please say why and, if possible, suggest an alternative timeframe for consideration.

4.4 Reform area four – The compliance regime

ACIL Allen concluded that while the compliance regime for plumbing in WA needed to be tightened and made more visible, it did not necessarily need wholesale change.

While most of ACIL Allen's recommendations in relation to the compliance regime have already been implemented, one remains outstanding. This relates to the advertising of plumbing services by non-plumbers (see section 4.4.1 below).

It is also proposed to review the disciplinary, penalty, prosecution, and compliance notification provisions in the Plumbing Act and Regulations. These proposals are discussed below.

4.4.1 PROPOSAL FIFTEEN: Advertising plumbing services

Section 3.3 of this CRIS discussed ACIL Allen's recommendation that the regulator should be permitted to act on advertising by non-licensed contractors by making it illegal for them to advertise or otherwise offer to provide plumbing services.

Options for consultation

For the reasons that were outlined in section 3.3 of this CRIS, while there are certainly cases where such advertising leads to the carrying out of unlicensed work, the solution proposed by ACIL Allen would have adverse impacts on those companies who operate perfectly legally.

The introduction of a type of business licence for plumbing as discussed in section 3.2.1 may offer a means of implementing ACIL Allen's suggestion without any adverse impacts. This is because the requirement to display the licence number on any advertising could be imposed on such business licences in the same way as it currently is for 'natural person' LPCs.

An alternative measure could be to require businesses that are not owned and operated by a LPC but who advertise services that include plumbing (such as kitchen and bathroom renovation companies) to keep records of all plumbing work carried out on behalf of the business, together with the name and licence number of the plumber they engaged to carry out that work. This record would be required to be made available for inspection by a plumbing inspector on request.

This alternative option would address the problem identified by ACIL Allen and enable the regulator to better target its compliance activities in relation to unlicensed plumbing work. It would also enable sanctions to be imposed much more efficiently than at present as there would be less need for the plumbing inspector to have to follow a chain of evidence to identify whether or not the plumbing work was done by a licensed person. Comment is therefore sought on this option as an alternative to the one recommended by ACIL Allen.

Questions for consultation

33. Do you consider it appropriate for unlicensed persons or companies to be prohibited from advertising plumbing services? Please provide reasons for your view.
34. Do you support a requirement that non-plumbing companies must keep records of any plumbing work carried out by the company? Please provide reasons for your view.

4.4.2 PROPOSAL SIXTEEN: Expanding the list of disciplinary matters

Regulation 27 of the Plumbing Regulations lists the matters about which disciplinary complaints may be made. Regulations 28 to 33 set out the actions the Board may take on receipt of such a complaint; and regulation 34 lists the powers of the SAT should the Board decide a matter is serious enough to warrant the SAT's involvement.

As detailed in section 1.4 of this CRIS, in April 2016 amendments were made to the Plumbing Regulations to implement ACIL Allen's recommendations relating to the list of matters that should be included under regulation 27.

This CRIS seeks comment on a further two proposals for reform. Both proposals relate to the supervisory responsibilities placed on LPCs and licensed tradespersons who oversee the work of others.

Problem to be addressed

Regulations 13, 13AA and 13AB of the Plumbing Regulations require holders of a tradesperson's licence to not do plumbing work unless under the general direction and control of a LPC. Similarly, holders of a provisional tradesperson's licence are not permitted to carry out plumbing work unless supervised by a LPC or a licensed tradesperson who is operating under the general direction and control of a LPC. Regulation 27(h) makes it a disciplinary offence for a LPC to fail to provide general direction and control as required.

However, the plumbing regulations are largely silent on what general direction and control is, making it difficult for the regulator to impose any sanctions on the LPC should he or she fail to exercise that direction and control to an adequate standard.

Based on evidence gathered during compliance and enforcement activities, plumbing inspectors have expressed the view that this is a gap that needs closing so that action can be taken against LPCs who do not carry out those functions adequately. It is therefore proposed to make amendments to the Plumbing Regulations to:

a) provide greater clarity on the requirement for a LPC to exercise general direction and control; and
b) introduce a modified penalty provision for situations where it is found that a LPC has failed to exercise adequate supervision, direction or control in cases where it was appropriate for him or her to do so.

These changes would be accompanied by guidelines setting out the factors that would be taken into account by the regulator when assessing whether supervision, direction or control has been adequately exercised in any particular case. The amount of the penalty would be commensurate with the penalty for failing to lodge a Certificate of Compliance for major plumbing work (currently a maximum fine of $5000 or modified penalty of $1000 – but see section 4.4.3 below).

Impact analysis

As this proposal constitutes an administrative matter, a full regulatory impact assessment has not been carried out. Stakeholder comment on the proposal is nevertheless welcome.

4.4.3 PROPOSAL SEVENTEEN: Increasing the statutory penalty amounts

Section 59K of the Act allows regulations to be made to create offences and provide for the imposition of a statutory penalty consisting of a fine not exceeding $5,000 for those offences.

In addition to the statutory penalty, section 59K of the Act allows for an infringement notice scheme (with associated penalties known as 'modified penalties') to be established via the Plumbing Regulations. Under section 5 of the *Criminal Procedure Act 2004*, the maximum amount that can be imposed by way of a modified penalty is 20% of the maximum statutory penalty. As the maximum statutory penalty in the Plumbing Act is currently $5,000, the maximum that can be imposed as a modified penalty at present is $1,000.

Problem to be addressed

The size of the maximum penalty in the Act has not changed since the commencement of the current regulatory framework in mid-2000. Consequently, it has not kept pace with the growth of the Western Australian economy and, arguably, is considerably less of a deterrent today than it was in 2000. It is also out of step with other comparable legislation as can been seen from the table below.

Legislation	First offence	Second offence	Third or subsequent offence
Gas Standards Act 1972	$50,000	$50,000	$50,000
Electricity Act 1945	$50,000	$50,000	$50,000
Building Services (Registration) Act 2011[*]	$25,000	$25,000	$25,000
Building Act 2011	$50,000	$75,000	$100,000 (plus 12 months' imprisonment)

[*] In the Building Services (Registration) Act 2011, there are different levels of penalty for different types of offence. They range from $5,000 to $25,000. As the maximum penalty for unregistered work is $25,000, this is the figure that has been used in the above table.

Proposal for consultation

It is proposed to amend the maximum penalty amount in the Plumbing Act so that it is commensurate with that which applies to gas permit holders under the *Gas Standards Act 1972*. As shown in the above table, that figure is currently set at $50,000.

Impact analysis

As this proposal relates to an administrative matter, a full regulatory impact assessment has not been carried out. Stakeholder comment on the proposal is nevertheless welcome.

4.4.4 PROPOSAL EIGHTEEN: Timeframe for prosecution and infringement action

The Plumbing Act is currently silent in regard to the timeframe within which a prosecution for an offence may be commenced. Accordingly, the provision in section 21 of the *Criminal Procedure Act 2004* applies. That section requires that a prosecution must be commenced within 12 months after the date on which the offence was allegedly committed, unless the respondent consents to it being commenced at a later time.

The timeframe for issuing an infringement notice for a prescribed offence is also limited to 12 months after the date on which the offence was allegedly committed.

Problem to be addressed

The time taken to investigate a complaint and determine whether prosecution or infringement is warranted, coupled with the fact that the Plumbing Regulations allow plumbing inspectors to issue rectification notices to LPCs for sub-standard plumbing work carried out at any time in the previous six years, means that a one-year timeframe for commencing prosecution proceedings or issuing an infringement notice is often inadequate. It is also inconsistent with other similar legislation in WA. For example, section 133 of the *Building Act 2011* provides for prosecution proceedings to be commenced within three or six years of an alleged offence, depending on the nature of the offence. In the *Building Services (Registration) Act 2011* (section 101) and the *Occupational Safety and Health Act 1984* (section 52) the timeframe for the commencement of prosecution action is three years. In the *Electricity Act 1945* (section 53) and the *Gas Standards Act 1972* (section 14) the timeframe is two years.

Proposal for consultation

It is therefore proposed to amend the Plumbing Act to specify a prosecution timeframe of two years, commencing from the date the offence was allegedly committed. This would align the provision in the Plumbing Act with that in both the *Electricity Act 1945* and the *Gas Standards Act 1972.* It is also proposed to amend the Plumbing Act to specify a time period of two years to issue an infringement notice, commencing from the date the offence was allegedly committed.

Impact analysis

As this proposal relates to an administrative matter, a full regulatory impact assessment has not been carried out. Stakeholder comment on the proposal is nevertheless welcome.

4.4.5 PROPOSAL NINETEEN: Compliance notification for *minor plumbing work*

Notification arrangements

As previously discussed, plumbing regulation in WA (as in other Australian jurisdictions) is based on a system of notification and self-certification.

The notification process requires LPCs to submit notices of intention prior to performing 'major plumbing work'. This provides the regulator with information about the type and location of plumbing work so that it can perform its compliance and enforcement role effectively.

LPCs must also submit certificates of compliance on completion of 'major plumbing work', as well as a monthly 'multi-entry certificate' outlining all 'minor plumbing work' performed during the previous month. A multi-entry certificate can record up to 25 individual jobs and must be submitted within five working days after the end of each calendar month. A LPC who lodges a multi-entry certificate must keep their copy of the certificate at his or her principal place of business for six years.

Pro forma multi-entry certificates must be purchased from the Board. These can be purchased individually for $17 each, or a booklet of 12 can be purchased for $192.

The system under which licensed plumbers notify the Board of plumbing work has not materially changed since its inception in 2004. However, there have been a number of changes to how the Board administers its functions. These have included:

a) machinery of government changes, with administrative support now being provided by the Department;

b) increased use of LPC audits in which a selection of the work notified by a plumber is inspected, with a corresponding reduction in the number of random inspections; and

c) a proposal to introduce electronic lodgement of plumbing notices in the near future.

Those changes have led to a review of the current notification system to determine whether improvements can be made by simplifying the arrangements. The conclusion reached was that while it remains crucial that plumbers continue to notify the regulator about 'major plumbing work', efficiencies could be gained by removing the requirement to notify the regulator about 'minor plumbing work'.

Consultation paper

A consultation paper titled, *Reducing the Administrative Burden on Plumbers* was published by the Building Commission in March 2016. The paper set out a proposal to remove the requirement that multi-entry certificates must be submitted to the regulator. The paper argued that while plumbing inspectors regularly use the information in notices of intention for 'major plumbing work', multi-entry certificates were much less useful. This is because there is a much lower risk that sub-standard minor plumbing work will result in health or safety risks to consumers. For this reason, plumbing inspectors focus on major plumbing work in determining when an inspection should be undertaken. The consultation paper also noted that the proposed implementation of an electronic system for compliance notification provided an opportunity for changes to be made.

The conclusion reached in the paper was that the requirement for plumbers to keep a record of minor plumbing work is a useful tool that assists plumbing inspectors when complaints about plumbing work are made or when undertaking audits of LPCs. However, there is little obvious benefit in requiring this information to be submitted to the Board at regular intervals. Consequently, the time costs for LPCs to submit multi-entry certificates on a monthly basis, as well as Board administration and system costs, are difficult to justify.

Even if a relatively short period of five minutes is assumed for the time taken for LPCs to purchase multi-entry certificates, fill them in and send them back to the Board, this equates to 5,360 working hours (or 670 working days) lost annually to administration. This is in addition to the costs the Department incurs in processing and storing multi-entry certificates.

The revenue generated from sales of multi-entry certificates (around $300,000 in 2016/17 figures) is intended to cover compliance activities of the Board. However, the amount available for compliance activities is greatly reduced when the processing and storage costs are taken into account.

In order to maintain the benefits of recording minor plumbing work while reducing the costs involved in processing certificates, the consultation paper proposed that the Plumbing Regulations be amended to remove the requirement for LPCs to lodge multi-entry certificates. This would mean that LPCs would only have to record the minor plumbing work they perform, ensure that a record of this work is maintained at their principal place of business for six years, and make it available for inspection by a plumbing inspector upon request. Arguably, this is no different to the current requirement that LPCs must keep a copy of all multi-entry certificates.

A further benefit of this approach is that LPCs would have some flexibility in how the information is recorded. For instance, while the type of information to be recorded may be prescribed, for example, the address where the work was performed and the type of plumbing work undertaken, this information would no longer need to be recorded in the form of a multi-entry certificate. LPCs could instead choose to record the information electronically such as on a spreadsheet or in other ways that align with their business processes.

Public comment

Three responses were received in reply to the discussion paper; all were in support of the proposal to remove the requirement for licensed plumbing contractors to lodge multi-entry certificates.

The response from the MPGA summed this up as follows:

"The MPGA acknowledges that the administration of these certificates is time consuming and labour intensive however they are valuable to the industry as they deter non-plumbers from conducting minor plumbing works and reinforce the general compliance regime……. A satisfactory outcome may be to continue to legislate for the compulsory completion of these certificates in an accepted format to be filed at the contractor's business address so that they can be checked and audited during a compliance audit. There would be no need to forward the completed certificates to the Plumbers' Licensing Board. The MPGA believes that it would be detrimental to the industry if the recording of minor work is removed completely."

Proposal for change

Following the consultation undertaken in 2016, it is intended to make amendments to the Plumbing Regulations to no longer require the submission of multi-entry certificates. The requirement to keep a record of all minor plumbing work will, however, be retained.

This CRIS does not specifically seek further comment on this issue. However, if any stakeholders wish to do so, all comments provided will be taken into account as part of the development of the DRIS outlining the Government's final policy position on reforms to the Plumbing Act and Plumbing Regulations.

4.4.6 PROPOSAL TWENTY: Scope of 'minor plumbing work'

Following on from Proposal Nineteen, public comment is sought on three proposals to amend the scope of work contained in the definition of 'minor plumbing work'.

(a) Remove "the maintenance or repair of an existing water heater" from the definition of minor plumbing work

The definition of 'minor plumbing work' in regulation 3 of the Plumbing Regulations includes "the **maintenance or repair** of an existing water heater". However, under the definition of plumbing work in regulation 4, the maintenance or repair of a water heater is not plumbing work. For this reason, it should not be included in the definition for minor plumbing work.

Question for consultation

35. Do you agree that work to maintain or repair a water heater should be excluded from the scope of the plumbing laws? If no, please tell us why.

(b) Remove, "the connection of a garden reticulation system to a water supply system" from the definition of 'minor plumbing work'

The definition of 'minor plumbing work' in regulation 3 of the Plumbing Regulations includes "the **connection of a garden reticulation system** to a water supply system". Consistent with Proposal 6 relating to garden reticulation work, it is proposed to remove this type of work from the definition of 'minor plumbing work' in cases where it is downstream of a backflow prevention device.

Question for consultation

36. Do you agree that work to connect a garden reticulation system downstream of a backflow prevention device should be excluded from the scope of the plumbing laws? If no, please say why.

(c) Clarify that the replacement of a backflow prevention device is 'minor plumbing work' in the case of a non-testable device, but 'major plumbing work' for testable devices

Currently, the definition of 'minor plumbing work' in regulation 3 of the Plumbing Regulations excludes the installation or replacement of a backflow prevention device. As a result, all such work is classified as 'major plumbing work' for which a notice of intention and certificate of compliance must be submitted. This is an appropriate requirement in the case of **testable** backflow prevention devices (which must be used in all high and medium hazard situations), but is considered overly burdensome in the case of non-testable backflow prevention devices (which are used in low-risk situations.)

It is therefore proposed to amend the definition of 'minor plumbing work' such that:

- the installation or replacement of a testable backflow prevention device is classed as 'major plumbing work' for which a notice of intention and certificate of compliance is required; and
- the replacement of a non-testable backflow prevention device is classed as 'minor plumbing work'.

Impact analysis

The changes detailed above would reduce the administrative burden for plumbers. This, in turn, would reduce costs both for plumbers and the regulator.

Questions for consultation

37. Do you agree that the installation or replacement of a testable backflow prevention device should be classed as 'major plumbing work'? If no, please tell us why.

38. Do you agree that the replacement of a non-testable backflow prevention device should be classed as 'minor plumbing work'? If no, please tell us why.

4.5 Reform area five – The plumbing regulator

As outlined in section 3.4 above, ACIL Allen evaluated the institutional and decision-making arrangements for plumbing regulation in WA and concluded that efficiencies could be gained from restructuring the roles of licensing administrator and technical regulator, both of which are currently held by the Board.

While ACIL Allen did not make any specific proposals for change, they did outline some general principles. Based on those principles, a range of possible models were identified, and Marsden Jacob was asked to assess the relative impacts of each one. The options ranged from maintaining the status quo, right the way through to a radical overhaul that would see plumbing regulation being moved away from an established government department and into the control of a stand-alone body reporting directly to a Minister.

In the period since Marsden Jacob carried out its assessment, the Government has implemented a number of 'Machinery of Government' changes to enhance efficiency in the public sector. As a consequence of those changes, a revised structure for the administration of WA's plumbing and gas legislation is now in place.

Under the new structure, the compliance functions of the Building Commission and EnergySafety divisions of the former Department of Commerce have merged to form a combined 'Building and Energy' Division (Building and Energy). This provides the opportunity to create a better synergy between the plumbing and gas regulator roles and achieve greater efficiencies for industry participants.

In addition, the Government has requested a review of the more than 300 boards and committees that currently operate across the public sector. This forms part of the second round of Machinery of Government reforms announced by the Government in 2017. The aim of the review is to ensure optimal structures are in place to support the public sector in achieving clarity of purpose, focus on priorities and efficient service delivery.

These developments mean that some of the options considered by Marsden Jacob are no longer viable.

Reform options for consultation

ACIL Allen identified four 'decision makers' in relation to the regulation of plumbing:

a) the licensing authority (who sets the licensing categories and criteria);
b) the licensing administrator (who assesses licence applications against the criteria);
c) the technical standards authority (who determines the technical rules for plumbing); and
d) the technical regulator (who monitors and enforces compliance with the technical rules).

Currently, the functions listed at b) and d) above are carried out by the Board. Items a) and d) are Ministerial functions.

Basis for assessment of the options

Marsden Jacob adopted a principles-based approach to their impact analysis for each of the options under consideration. This involved assessing each option against a range of governance criteria and using a 'traffic light' system to highlight areas of relative strength (●), potential improvement (●), and relative weakness (●).

The governance criteria were drawn from published best practice governance principles and covered the following:

- clarity of role and purpose;
- authority and decision-making;
- accountability;
- efficiency;
- transparency; and
- durability.

The associated costs of each option were not considered. Rather, the assessment was of whether one or more of the options should be further considered in greater detail with a view to implementation on the basis that the principles of the approach are both valid and sound, based on the assessment criteria. This is explained in detail in section 3.3.2 of Marsden Jacob's report at Appendix B.

Option one – Maintain the status quo

The current regulatory framework allocates the role of 'licensing authority' to the relevant Minister by requiring the licensing criteria to be set out in the Plumbing Regulations. The role of 'licensing administrator' is held by the Board, with support from Building and Energy.

In essence, the 'technical standards authority' is the ABCB in that the technical rules contained in the Plumbing Regulations are based around the PCA.

The 'technical regulator' is the Board, although in practice this role is delegated from the Board to Building and Energy, whose staff determine the operational aspects of technical regulation (i.e. the number of inspections or audits to be undertaken and the types of practices and installations that the inspections will target.)

Policy advice and development in relation to plumbing regulation is the responsibility of Building and Energy, who have the primary duty of assisting the Minister in the administration of the plumbing laws in WA. The Board does have scope to provide advice to the Minister on the matters for which it is responsible. However, it must tender that advice via the Department, who may add any comment as it sees fit.

Impact analysis

Using the principles-based approach, Marsden Jacob found that the current governance model did not score well against the six governance criteria. In particular, Marsden Jacob identified a potential lack of clarity in relation to compliance activities because the staff assigned to such activities are employees of the Department and not formally assigned to the Board. The current role and reporting structure for the Board were also found to be unclear, leading to issues around the 'authority and decision-making' criterion.

Option two – A plumbing technical regulator and a plumbing technical registration board supported by an office of the plumbing technical regulator

In February 2015, an industry group comprising the Master Plumbers and Gasfitters Association of WA, the Institute of Plumbing Australia Inc. and the Association of Hydraulic Services Consultants of Australia (WA Chapter) submitted a proposal to the Building Commission setting out their views as to the optimum model for regulating plumbing in WA.

In their proposal, the proponents advocated for a model consisting of an autonomous statutory body (the Plumbing Technical Regulator) that would be appointed by, and report directly to, the Minister and have "responsibility for the ongoing safety of plumbing installations beyond the initial installation".

The Plumbing Technical Regulator would be headed by a person who is a professional engineer with appropriate management qualifications, and would be supported by a technical compliance body (the Office of the Plumbing Technical Regulator) which could be single-trade or multi-trade (for example, plumbing, gasfitting and electrical).

The Plumbing Technical Regulator would be required to prepare an Annual Report for the Minister who must present it to both houses of the Western Australian Parliament. The main functions of the Plumbing Technical Regulator would be to develop and publish technical standards, conduct audits of plumbers, carry out inspections of plumbing work, conduct investigations and prosecutions, and generally monitor the plumbing industry.

The licensing administrator in this model would be a board (the Plumbing Technical Registration Board). The Board would also have a governance role and be supported in that role by two advisory committees – a Licensing and Training Advisory Committee and a Regulation and Compliance Advisory Committee. The role of Chairperson on the Board would be occupied by the person who heads the Plumbing Technical Regulator body. The remainder of the Board would comprise a deputy chairperson (appointed by the Minister on the recommendation of the Board), 2 executive directors (one for licensing and training and one for regulation and compliance), and 6 non-executive directors appointed by the Minister (1 each from the MPGA, the Plumbing Trades Employees Union, and the Association of Hydraulics Services Consultants Australia, 1 representing consumers and 2 licensed plumbing contractors).

Impact analysis

Of the range of options discussed in this CRIS, this option proposes the greatest amount of change and is the only one that envisages a stand-alone authority for the regulation of plumbing in WA.

In their assessment of this option, Marsden Jacob identified potential strengths in the areas of authority and decision making; accountability; and transparency. However, they found potential weaknesses in the areas of clarity of role and purpose and in the ability of the model to remain relevant and accommodate changes in the economic, industrial and political environments. Where this option scored least favourably was in the area of efficiency. This is because the proposed model would be a relatively expensive way to achieve the desired outcomes.

Option three – Plumbers Licensing Board as the licensing administrator; Building Commissioner / Director of Energy Safety as the technical regulator

Under this model, the Board would take on a more streamlined role by retaining its function as the licensing administrator (i.e. assessing and issuing licences and permits; and determining conduct and disciplinary issues). The Building Commissioner/Director of Energy Safety would become the technical regulator. This arrangement is very similar to the way the electrical industry in WA is currently is regulated.

Impact analysis

Using Marsden Jacob's assessment criteria, Option 3 is relatively strong in all areas except for 'transparency', where it is felt that stakeholders may not fully understand the procedural and operational aspects of separating the licensing and technical compliance functions across two entities.

Option four – Building Commissioner/Director of Energy Safety as the licensing administrator and the technical regulator, supported by an industry advisory group

Under this option, the Building Commissioner/Director of Energy Safety would have the function of issuing licences, based on advice from an industry advisory group. This arrangement is very similar to the way the gas industry in WA is currently regulated. It is also consistent with the strategic review of statutory Boards and Committees currently underway across government.

Impact analysis

Using the Marsden Jacob analysis tool, this option scores well under all six criteria, particularly in relation to efficiency, durability, authority and decision-making. It would also resolve the transparency issue that was identified in Option 3.

Comparison with other jurisdictions

There are various different organisational structures for regulating plumbing in Australia.

Victoria has a plumbing regulator aligned with the building regulator - the Victorian Building Authority (VBA). The VBA regulates plumbing and building under the same legislation and is responsible for the full range of regulatory functions from licensing to technical compliance.

In New South Wales, the Department of Fair Trading is responsible for plumbers licensing, as well as other occupational licences. The Department of Fair Trading is also the technical regulator; however, it generally delegates its responsibility to the relevant water service providers where that provider is Sydney Water or Hunter Water; or to the local council in other circumstances.

In Queensland, the responsible government agency is the Queensland Building and Construction Commission (the QBCC), who is responsible for plumbers licensing, compliance and enforcement, and disciplinary matters. In addition to plumbers, the QBCC is responsible for other trade occupations including builders, building and hydraulic design and gasfitters, as well as trade contractor licences for a number of occupations not licensed in WA, including bricklaying, concreting and roof tiling. There is a strong local government component to Queensland's regulatory framework for plumbing, with plumbing inspectors based within local government rather than the QBCC.

In Tasmania, the Department of Justice issues plumbing licences. It is the responsibility of the local government authority to inspect plumbing work and issue rectification notices.

In the Northern Territory, the Plumbers and Drainers Licensing Board is responsible for issuing licences. However, the Building Advisory Services Branch within the Department of Lands Planning and the Environment is the technical regulator of plumbing.

In the Australian Capital Territory, plumbing licences are issued by the Department of Environment and Planning. This Department is also responsible for auditing plumbing work.

In South Australia, the Attorney-General's department is responsible for the licensing of plumbers, while the Office of the Technical Regulator is responsible for technical matters. For both licensing and technical regulation, a horizontal alignment with gas fitting and electrical work has been adopted in South Australia.

Currently, WA and the Northern Territory are the only jurisdictions in Australia where a board is involved in the regulation of plumbing work.

4.5.1 PROPOSAL TWENTY-ONE: Revised structure for the plumbing regulator

Based on the analysis undertaken in relation to the four options discussed above, Option 4 would appear to represent the optimum model for the regulation of plumbing in WA. This is followed by Option 3.

Question for consultation

39. Which of the four options above would you support? Please provide reasons for your view.

APPENDIX A

ACIL Allen Recommendations

Chapter Two: Regulatory Definition of Plumbing

1. Definition of plumbing should be broad to allow future flexibility.
2. Amend definition of plumbing work to make clearer, e.g. where reference to meter assembly, potable water creates uncertainty.
3. Ensure new definition captures greywater, rainwater, non-potable recycled water, etc.

Chapter Three: Statement of Objectives

4. Appropriate objective is: 'to protect the long term interests and health of Western Australians with respect to the safety of the water supply and wastewater removal system by ensuring that plumbing work is performed in accordance with technical requirements appropriate for available technologies by sufficiently skilled persons'.

Chapter Four: Licensing Regime

5. For the purposes of licensing 'carve out' those branches of plumbing that are not currently subject to the regulatory regime but would be brought within it by the changed definition.
6. Make provisions for further changes to be made in the future if need be.
7. Include a contractor level licence.
8. Drop requirement that contractors undergo business training.
9. Require contractors to carry public liability and professional indemnity insurance.
10. Remove 'subjective' fit and proper test and replace with a list of factors that would disqualify a person such as convicted of an offence against plumbing regulations. Similar to national licensing proposal, factors should be limited to those necessary to achieve the objective of plumbing regulation.
11. 'Carve out' urban irrigation, limited plumbing work in remote areas and plumbing in a person's own home. Provide flexibility for other 'carve outs' to be made in the future.
12. In relation to migrant plumbers in particular, make possible to provide for licences of different lengths with various conditions or limitations.
13. Set conditions that the licensing authority must follow in determining the scope of plumbing work requiring a licence.

Chapter Five: Compliance Regime

14. Make it illegal for unlicensed persons to advertise for plumbing work.
15. Extend penalties to which an infringement notices can be issued to include commissioning and doing unlicensed plumbing work.
16. Enable disciplinary matters to be dealt with summarily.
17. Allow disciplinary actions to be resolved by enforceable undertaking.
18. Remove r.27(b) which makes 'the licensee or permit holder no longer a fit and proper person to hold the licence or permit' a disciplinary matter.
19. Amend r.27(f) to add committing an offence of dishonesty to the lists of grounds for disciplinary action.
20. Delete r.28 that implies the PLB can only take action about a disciplinary matter unless it first receives a complaint.
21. Clarify r.29 to make it clear that the relevant decision maker can take action in SAT if it considers it appropriate to do so regardless of how it reached that view.
22. Broaden r.66 to allow any person to be designated as a plumbing inspector.
23. Alter regulations to remove the distinction between authorisation to issue infringement notices and designation as a plumbing inspector – preserve separation between a person who can issue an infringement notice and a person who can vary or withdraw it.
24. Regulations should allow the technical regulator to require information to be provided to supports its compliance activities.
25. Increased use of 'soft' compliance.
26. Compliance regime to be administered by a technical regulator.
27. Technical regulator to develop compliance objectives and priorities – updated annually and published in a similar form to the Director of Energy Safety's annual business plan.

Chapter Six: Key Decision Makers

28. The minister to be responsible for determining the minimum standards to be met.
29. The minister to be responsible for determining regulatory definition of trade.
30. The minister to determine the regulatory definition of plumbing.
31. Licensing criteria to be determined by Minister by Ministerial Order or delegated to a licensing authority/technical regulator.
32. Department or technical regulator to have responsibility for administering licensing.

Chapter Seven: The Technical Regulator

33. Technical regulator should be multi-trade – legislation may still be kept separate.
34. Improve reporting by and to technical regulator.
35. Technical regulator should be a statutory office holder or group thereof.
36. Members should be appointed for a fixed term.
37. Members of technical regulator chosen using a skills matrix.
38. Number of members not to be fixed.
39. Technical regulator should be independent of government of the day and the plumbing industry.
    a. Chairperson to continue to be a person from outside the industry.
    b. Deputy chair to act in chairperson's absence.
40. If technical regulator is a single person then may be appropriate they have a plumbing background.
41. Abandon existing model of referring to individual appointees nominated by individual groups.
42. Develop detailed statistics regarding the full range of compliance related information. Report publicly.
43. Publish a regular publication that includes statistics relating to amount of plumbing work done, number of inspections, etc.
44. Even if a multi-trade regulator report on a 'trade by trade' basis.

Chapter Eight: Who Should Pay for Plumbing Regulation

45. Develop similar model to Energy*Safety*:
    a. Business plan developed each year setting out planned activities and budget.
    b. Budget for activities translated to a required levy amount.
    c. Minister considers plan and when approved, levies are set.
46. Levies to be applied to water services providers.

Chapter Nine: Plumbing Code of Australia

47. WA treats the question of adopting the PCA independently of the licensing regime.
48. Person signing off on an alternative solution should have appropriate expertise in design – usually found with engineers and hydraulic designers.
49. Licensing authority should determine the particular expertise necessary to determine whether alternative solutions are appropriate, or licence people with that expertise.
50. Additional category of licence is introduced named 'plumbing designer'.
51. If a system fails due to the design responsibility should fall on the designer.

APPENDIX C – Backflow Matrix

Type of device	Hazard	Risk	Standard Control Measures	Likelihood of device failure	Likelihood of backflow event	Consequence of F4	Risk Rating	Control Type	Control Description	Likelihood of device failure	Likelihood of backflow event	New Consequence	Residual Risk Rating
Device for high hazard protection	Failure of high hazard backflow protection device installed for individual or zone protection	Risk of death to persons caused by contamination of the drinking water supply	Manufacturers specifications and Australian standards for device testing and maintenance (not enforceable)	Almost Certain	Possible	Catastrophic	Extreme	As low as reasonably possible	Mandatory annual testing and servicing of backflow prevention devices	Unlikely	Unlikely	Minor	Low
Device for medium hazard protection	Failure of medium hazard backflow protection device installed for individual or zone protection	Risk of ill health to persons caused by contamination of the drinking water supply	Manufacturers specifications and Australian standards for device testing and maintenance (not enforceable)	Almost Certain	Possible	Major	Extreme	As low as reasonably possible	Mandatory annual testing and servicing of backflow prevention devices	Unlikely	Unlikely	Minor	Low
Device for low hazard protection	Failure of low hazard backflow protection device installed for individual or zone protection	Risk of contamination of the water supply so as to cause a nuisance	Manufacturers specifications and Australian standards for device testing and maintenance (not enforecable)	Likely	Unlikely	Minor	Low	As low as reasonably possible	Mandatory annual testing and servicing of backflow prevention devices	Rare	Rare	Insignificant	Low

APPENDIX D – Thermostatic Mixing Valve Matrix

Type of device	Type of building or facility	Hazard	Risk	Standard Control Measures	Likelihood of device failure	Likelihood of scalding	Consequence of F3	Risk Rating	Control Type	Control Description	Likelihood of device failure	Likelihood of scalding event	New Consequence RR	Residual Risk Rating
Thermostatic mixing valve	Healthcare building or facility for disabilty care	Failure of thermostatic mixing valve	Risk of scalding injury	Manufacturers specifications and Australian standards for device testing and maintenance (not enforceable)	Almost Certain	Likely	Major	Extreme	As low as reasonably possible	Mandatory annual testing and servicing of thermostatic mixing valves	Unlikely	Rare	Minor	Low
Thermostatic mixing valve	Aged care facility or nursing home	Failure of thermostatic mixing valve	Risk of scalding injury	Manufacturers specifications and Australian standards for device testing and maintenance (not enforceable)	Almost Certain	Likely	Major	Extreme	As low as reasonably possible	Mandatory annual testing and servicing of thermostatic mixing valves	Unlikely	Rare	Minor	Low
Thermostatic mixing valve	Early childhood centre	Failure of thermostatic mixing valve	Risk of scalding injury	Manufacturers specifications and Australian standards for device testing and maintenance (not enforecable)	Almost Certain	Possible	Moderate	High	As low as reasonably possible or elimination of heated water provision	Mandatory annual testing and servicing of thermostatic mixing valves	Rare	Rare	Insignificant	Low
Thermostatic mixing valve	Primary and secondary schools	Failure of thermostatic mixing valve	Risk of scalding injury	Manufacturers specifications and Australian standards for device testing and maintenance (not enforceable)	Almost Certain	Possible	Moderate	High	As low as reasonably possible or elimination of heated water provision	Mandatory annual testing and servicing of thermostatic mixing valves	Rare	Rare	Insignificant	Low

APPENDIX E – Risk Matrix

	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

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