

The Allen Consulting Group

Regulation Impact Statement for a National Construction Code

Final Decision RIS

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Executive summary

This Regulation Impact Statement (RIS) provides an assessment of the proposal to develop a National Construction Code (NCC), consolidating building and plumbing standards into one code.

A business case for a NCC was developed in May 2008 (ACG 2008). This study tested the proposal of bringing all on-site construction requirements (building, plumbing, electrical and telecommunications) into the one code. The study recommended that a NCC should be implemented, with the greatest benefits derived from combining building and plumbing codes. This was the recommended first stage of implementation of the NCC. An implementation plan for the NCC was developed by Allen Consulting Group, and provided for agreement by COAG.

This RIS provides an assessment of the proposal for a NCC combining building and plumbing technical standards, the most likely model being a consolidation of the Building Code of Australia (BCA) and the Plumbing Code of Australia (PCA) (as a starting point). While this consolidated code has not as yet been developed, this RIS tests the most likely composition of the first version of the consolidated code.

The RIS follows the COAG (2007) guide for best practice regulation, by first identifying the problem, considering feasible policy options and assessing the impact of options for change.

Identified problems with the current regulatory arrangements

Building and plumbing are currently regulated through separate legislative and administrative arrangements. Building is regulated by State and Territory governments, with the BCA as the primary code referenced in all State and Territory building Acts or regulations.

State and Territory governments also regulate plumbing, however, not all use the PCA as the primary code. Unlike building, plumbing regulators have not agreed (through an IGA) to the adoption of a national code.

While regulated separately, building and plumbing regulation are inherently linked, with both setting requirements for on-site construction of buildings. These regulations should, therefore require consistent outcomes and work towards achieving consistent objectives.

In practice, analysis for this RIS found that there are several areas of overlap and some inconsistent requirements between building and plumbing codes (particularly for non-residential construction). Overlap of codes, in itself, is not necessarily a problem; some overlap is likely to be necessary in many contexts (as builders and plumbers each work to produce a finished product that requires both construction and plumbing installation). Overlapping codes, however, do present a problem where:

- there are inconsistencies between required outcomes from codes; and
- there is no established practice for managing inconsistencies as they occur (that is, inconsistencies may be managed well in some cases but poorly in others, thereby increasing the risk of poor outcomes).

Inconsistencies between on-site technical performance requirements can create confusion, distort on-site practices (therefore increasing costs), and, in some cases, can lead to work being re-done to ensure compliance with all codes. These issues are most significant in the non-residential sector, where there is more extensive use of performance-based solutions, and less similarity between projects.

In addition to the problems of overlapping and inconsistent regulation, the current regulatory approach to building and plumbing:

- includes a mixture of performance-based and prescriptive approaches, and variations in processes for setting regulation (particularly in relation to the use of impact analysis);
- is a complex system with which to manage future challenges, as separate codes must be updated and be consistent with each other (such as the current challenges of addressing sustainability policy objectives in both building and plumbing regulation); and
- is supported by a range of different administrative systems, with each State and Territory adopting their own approach to administering building and plumbing regulation. This variation in administration imposes unnecessary costs on businesses that operate across multiple jurisdictions.

The proposal for a NCC

The proposal for a NCC tested in this RIS involves bringing together current building and plumbing codes into one code, under one governance model. This RIS considered two different approaches to this consolidation.

Sub-Option 1

This would involve the addition of the PCA to the BCA as a separate volume, making minor changes to the two individual codes but with the view to addressing issues of consistency and overlap in subsequent versions of the NCC.

Sub-Option 2

Sub-Option 2 involve a more substantial consolidation that aims to merge the two codes including identifying and addressing areas of inconsistency and overlap prior to publishing the first version of the NCC. The time required to implement this sub-option (in terms of time taken by government to develop the code itself) is expected to be longer than for Sub-Option 1.

Expected costs of a NCC

The costs of a NCC will primarily be transition costs for industry and government. These costs for industry (which includes builders, plumbers, building surveyors and architects) are time costs for individuals to understand their obligations under a NCC (to the extent to which they differ from the current arrangements).

Costs for government will be incurred through:

- resources required from the Commonwealth, State and Territories to develop the code;

- resources required from State and Territory governments to make the necessary legislative and administrative changes to manage a NCC. These will vary considerably across jurisdictions, with New South Wales and South Australia likely to incur the highest transition costs due to the structure of their current legislative and administrative arrangements;
- costs of conducting communication and education activities to assist industry in adjusting to the NCC (such as producing advisory documents, holding seminars, etc).

The expected costs of the NCC are set in the table below. As shown in the table, the expected total cost to industry and government of the introduction of a NCC is \$39.6m. The majority of these costs are time costs for industry in upgrading to the NCC. These estimates are higher than those in the Consultation RIS, reflecting:

- a request by stakeholders that the estimated wage rate used to estimate industry cost be increased;
- the addition of engineers to the set of professionals impacted by the NCC;
- the addition of costs for plumbers to purchase the NCC, based on the assumption that governments will carry-over the current funding model for the BCA to a NCC.

Table ES.1

ESTIMATED COSTS OF A NCC — IMPLEMENTATION SUB-OPTION 1

| Cost category | Estimate (\$) |
|---|---|
| Industry transition costs to NCC | \$28 285 000 |
| Costs of purchase of NCC by plumbers | \$6 760 000 |
| Costs of development of the NCC (government) (Sub-Option 1) | \$1 750 000 |
| Costs of legislative and administrative changes (State and Territory governments) | \$1 000 000 |
| Costs of communications (State and Territory governments) | \$1 800 000 |
| Costs of technical change | Expected to be minimal, no estimate able to be provided by government or industry |
| TOTAL | \$39 595 000 |

The costs of Sub-option 2 will be greater than Sub-option 1, with 2-3 times the costs to government in developing the code, and the potential for higher transition costs for industry (though the degree of this cost increase is uncertain). At a minimum, Sub-option 2 would cost an additional \$2 million in development costs (bringing the total cost to \$41.6 million).

Expected benefits of a NCC

The proposal for a NCC is seeking to improve the current regulatory framework for building and plumbing. The potential benefits of the proposal, therefore, will be the extent to which it improves on the current regulatory arrangements (as described in Chapter 1 of this RIS), and where these improvements deliver benefits to stakeholders. Industry and government stakeholders indicated that there are expected benefits from a NCC in the following areas.

Improved consistency between building and plumbing regulations

A majority of industry stakeholders in consultations agreed that the NCC would be beneficial for industry by improving the consistency of practice between trades. Such benefits were considered to be most relevant for the non-residential sector, with potential for only small gains in the residential sector (due to low mobility of the sector across jurisdictions and greater use of deemed-to-satisfy provisions rather than performance-based solutions in construction practice).

As the ABCB Chairman reported in his submission to the IGA review:

A model along the lines of the NCC would bring greater consistency and scrutiny to the "whole of building" process. It would overcome duplication where this now exists and reduce compliance costs. It would also bring Australia in to line with best international practice in the regulation of buildings (ABCB Chair submission, p.23).

In this context, the benefit for industry of a NCC is in improved efficiency and lower costs of construction (through reduced delays which may have been due to errors or changes needed as a result of different approaches by practitioners on-site). Industry stakeholders did not consider that the potential for efficiency gains was very large, but perhaps in the order of 2-3 per cent for the non-residential sector.

Improved framework for regulation of plumbing on a national basis

The NCC will deliver benefits through a better framework for regulation of the plumbing industry, provided through an IGA for plumbing and a framework to develop and maintain a national performance-based standard. The experience of the BCA in this context was that moving to performance-based regulation alone reduced costs for large scale building projects by between 1 and 5 per cent. While there are some performance-based regulations in plumbing regulations already, bringing consistency to this approach, and bringing it in line with BCA framework, should provide further benefits (Productivity Commission 2004).

Improved regulatory framework to respond to future policy challenges

A key benefit of a NCC, identified by government stakeholders, is that it provides a regulatory framework to respond to future issues in a holistic way (that is, considering both building and plumbing aspects through the one code, rather than through multiple codes). Where separate codes are maintained, if government wishes to progress policy (such as sustainability measures) which impact on both building and plumbing practice it must work across multiple codes through different governance arrangements.

Improved regulatory conditions for innovation at the national level

A small number of stakeholders considered that the construction sector would benefit from a NCC through improved conditions for innovation. Such innovation will assist in addressing future policy changes, including climate change.

Opportunity for administrative reform

The NCC provides an opportunity for State and Territory governments to consider both the structure of their administration of building and plumbing regulation within their own jurisdiction, and the consistency of administration across jurisdictions. The *actual* benefits achieved as a result of a NCC will depend on the ‘appetite’ of governments for this reform. The business case for the NCC recommended that COAG:

use the National Construction Code as an opportunity to pursue further reform in variations across State, Territory and Local Governments in both technical standards and administration (ACG 2008).

There is greater potential for the new IGA to affect greater reform of administrative systems than the NCC itself. It is important to note, however, that the NCC will not necessarily reduce cross-border inconsistencies within the plumbing and building codes. Other factors, such as the flexibility of the NCC model to react to change and the willingness of the jurisdictions to limit variations, will also play key roles.

Estimating benefits of a NCC

The above types of benefits identified for the NCC are each important for both the efficiency and productivity of the construction sector, and the efficiency of regulatory and administration for building and plumbing.

In consultations for this RIS, while a majority of stakeholders agreed that a NCC would deliver benefits to industry and the community, none were able to make an estimate of the potential scale of these benefits. This is primarily because the types of benefits from a NCC are not readily estimated in the same way that costs are. One method of assessing the potential for a net benefit from a proposal is to determine under what circumstances that benefits would cover costs— that is, what is the breakeven point where sufficient benefit would be achieved?

A break-even analysis identifies the minimum quantum of benefits needed for a regulatory proposal to provide a net positive outcome. A break-even analysis is attractive because it does not directly seek to value benefits, but tests the reasonableness of potential levels of benefit, compared with costs. This approach establishes the minimum benefits required to at least cover total costs. Where the break-even target can be exceeded, the option provides a net benefit to the community. Break-even analysis sets a level of benefit required, meaning an assessment can be made on the likelihood of this target being achieved.

It is important to note in this analysis that the break-even target is *not*:

- the expect total benefit of the scheme, *or*
- the target benefit for government to be satisfied that the scheme is a ‘success’.

What the break-even does is set a threshold specifically for the cost benefit analysis to test the reasonableness of the costs imposed against potential benefits.

In the case of a NCC, the key potential benefits are efficiency gains, which are not readily captured through a standard cost-benefit analysis without a large margin of error on estimates. A break-even analysis can present the required efficiency gain needed to meet the costs of implementing a NCC.

Focusing on the non-residential sector, where stakeholders indicate efficiency gains from a NCC can be achieved, only a very small efficiency gain of 0.14 per cent would be required to achieve a net benefit from introducing a NCC.¹ This level would be significantly lower if the residential sector were included. Further, given that many of the costs of the NCC are fixed, up-front costs, and benefits through efficiency gains are likely to be realised over a number of years, the actual break-even point is lower still, indicating that the costs of the proposal are very small compared with the potential gains for the construction sector and governments (in terms of the efficiency of the regulation and administration of the sector).

Recommended approach

This RIS provides an assessment of the proposal for a National Construction Code, and the costs and benefits of the introduction of a consolidated code based on the BCA and PCA.

The comparison of potential costs and benefits shows that the NCC only needs to achieve relatively small efficiency gains to achieve a net benefit — indicating that the range of benefits for industry and government from a NCC are likely to be greater than the costs of the new code. Importantly, the NCC has a strong potential to improve the quality of regulation and administration for the construction sector, and to improve the capacity of industry and government to respond to future policy challenges. On this basis, the recommended approach is to proceed with a NCC, given the expected net benefit of this approach compared with the current regulatory approach (the status quo).

The full extent of benefits achieved from the NCC proposal will depend on the extent to which it is a driver for broader reform of regulation of building and plumbing, particularly in relation to achieving greater consistency in administrative frameworks and reducing variations in performance requirements across all levels of government. This will ultimately depend on the future actions of governments, which is not within the scope of this RIS to predict.

Recommended implementation option

This RIS assesses two sub-options for implementing the NCC (see Chapter 3). The key difference between these sub-options is the degree to which the *initial* consolidation process of bringing together the BCA and plumbing codes addresses all potential overlaps, areas for streamlining and inconsistencies. Sub-Option 1 involves a minimal consolidation, while Sub-Option 2 involves a longer implementation period, with a greater degree of consolidation prior to the release of the first version of the NCC.

¹ Based on a cost of \$39.6 million for a NCC and a total value of non-residential construction of \$27.9 billion – ABS (2008b) estimates.

While Sub-Option 1 is expected, in the first phase, to involve relatively minor consolidation of codes, it is anticipated that the process of annual review of the NCC will address remaining issues over time (similar to the process used to develop the BCA itself, where the first code was an amalgam of all State and Territory building Acts and regulations, but over time it was streamlined, with overlaps, duplications and inconsistencies reduced).

These options are assessed as implementation options as each has the same end-point in terms of bring together administration and governance structures for building and plumbing codes, consolidating processes for reviewing codes, and improving consistency across State and Territories for plumbing regulations (as at the moment not all jurisdictions refer to the PCA). What sub-option 1 would *not* do is address in the first stage all the potential overlaps between building and plumbing technical standards. This process would be imbedded in annual reviews of the code, which are currently conducted for the BCA by the ABCB (with the same approach to be undertaken for a NCC).

Key impacts on the cost and benefits of a NCC are:

- On the costs side, the key difference between the sub-options would be the costs associated with the development of the code itself. Sub-Option 2 would be more costly in the implementation phase, though these costs may be incurred under Sub-Option 1 where a staged consolidation is conducted through the annual review process (where each annual review addresses aspects of the consolidation between building and plumbing codes).
- On the benefits side, it could be argued that Sub-Option 2 will be more effective in addressing the key problems identified in this RIS, particularly those that relate to inconsistencies between codes. That said, a NCC implemented under Sub-Option 1, with annual updates to address inconsistencies over time will also achieve these benefits, albeit at a slower pace.

In comments on the Consultation RIS, government administrators support Sub-Option 1, noting that it is a lower cost option, and would lead to a more manageable first version of the NCC which will be easier for practitioners to use, and also potential cheaper if the volume could be sold separately. Under this option, the benefits of bringing together governance, review processes and administration of the code itself will still be realised, though the outward appearance of the code will remain as separate volumes (similar to the current BCA where the housing volume is separate from other volumes).

On balance, the impact analysis found little difference between these two implementation sub-options. The decision on implementation therefore can be made on the basis of a judgement of the most practicable way forward, which at this stage appears to be Sub-Option 1, on the basis that there is a commitment by governments to continue with the revision and consolidation of the NCC during annual review tasks. Given the progress made by the ABCB through such a process with the BCA, and the familiarity of this process with industry, this option is the lowest cost option to achieve the potential benefits of a NCC.

Chapter 1

The nature and extent of the problem

Best practice regulation aims to address failures in market outcomes at minimum cost to consumers and industry. In order to make a case for government intervention, a RIS must first establish the problem that the proposed regulations are seeking to address. This is necessary to ensure that options considered (whether regulatory or not) can directly address the problem, and establish an objective framework within which the relative performance of options can be compared. The RIS should clearly identify the fundamental problems that need to be addressed.

In this regard, COAG best practice regulation guidelines (COAG 2007) require a RIS to:

- present evidence on the magnitude (scale and scope) of the problem
- document relevant existing regulation at all levels of government, and demonstrate that it is not adequately addressing the problem
- identify the relevant risks and explain why it may be appropriate for government to act to reduce them
- present a clear case for considering that additional government action may be warranted, taking into account existing regulation and any risk issues.

This chapter considers the extent to which the current regulatory framework for on-site construction is achieving the intended outcomes (the objectives of regulation) at the minimum cost to business and consumers. That is, whether the current arrangements are the most effective and efficient way to regulate on-site construction practice. The chapter assesses:

- the rationale for government intervention in construction of buildings
- how building construction (specifically building and plumbing practice) is currently regulated in Australia
- the identified problems with the current arrangements for building and plumbing regulations, with a particular focus on the interaction between building and plumbing.

1.1 The rationale for government intervention

Construction of commercial, residential and public buildings has long been regulated in Australia. There is an established rationale for such regulation, on the basis that:

- consumers of buildings often do not have all the necessary information or knowledge to assess the safety and quality of a building they purchase — especially for residential property which is typically an infrequent purchase
- important aspects of the safety of a building — including structural soundness, protection against fire and the safety of materials, are difficult to observe once a building is completed

- there are split incentives in the building process — where those making the decisions about building construction do not reap the rewards nor bear the costs of these decisions (energy efficiency being a good example). Split incentives can limit investment in quality or innovation (Productivity Commission 2004).

The Productivity Commission, in its 2004 review of building regulation, noted that regulation alone is not the sole potential tool to address these problems. For instance, consumers can purchase professional advice and/or purchase insurance to lower their risks of purchasing an unsafe or low quality building. It is uncertain, however, the degree to which consumers would invest in such assurances voluntarily. Some consumers may consider that it is the role of government to ensure a minimum level of safety and quality in buildings, and therefore may not wish to leave such a role to the private sector solely. Further, the transfer of ownership of buildings over time means that consumers are not always in a position to understand potential risks, and therefore may not act to address these risks sufficiently.

The mere presence of information asymmetries or externalities does not automatically justify government intervention. Market failures are an everyday event; buyers are rarely as informed as sellers, and most transactions have consequences for third parties. For example, the Wallis Inquiry noted that:

There is nothing unusual about asymmetry of information available to a supplier and a consumer. Many products or services are complex, difficult to compare, have considerable importance for the well-being of their customers or are provided over a period of time. (Financial System Inquiry 1996, p.97)

Furthermore, in the context of consideration of professional regulation, the Productivity Commission has noted that:

The need for government regulatory intervention does not immediately follow from the identification of information deficiencies: information deficiencies are pervasive yet most markets continue to function reasonably efficiently. ... it is not generally efficient to eliminate all negative externalities or promote infinitely large quantities of positive externalities. In many cases, externalities do not create significant problems (Productivity Commission 2000, p. 64).

Assessing the need for government regulation requires the identification of the potential harm that could result from a decision based on incomplete information or a decision that has negative consequences for third parties.

In broad terms, government intervention can be justified where the potential harm is significant (for example, where the nature of the risks posed by a particular transaction would have serious consequences). In assessing the significance of the harm,² there must be consideration not only of the potential consequences, but also:

- whether or not the impacts are reversible
- whether the risk is involuntary or voluntary
- the likelihood of that harmful outcome occurring.

² The significance of the harm can refer to significant harm to a few people or moderate harm to a large number of people.

In the case of building construction, the key issue is risk of harm occurring to building occupants from unsafe buildings. Further, occupants may not willingly taking on these risks, because they have insufficient knowledge or information to understand the safety of the building they are occupying.

1.2 The current regulatory framework for building and plumbing

Regulation of on-site building and plumbing is a critical component in the regulation of the construction industries. Legislation and regulations, set minimum performance requirements that builders and plumbers must meet. Other components of the regulatory framework (not assessed in this RIS) are building certification, occupational licensing and the national training and qualifications framework.

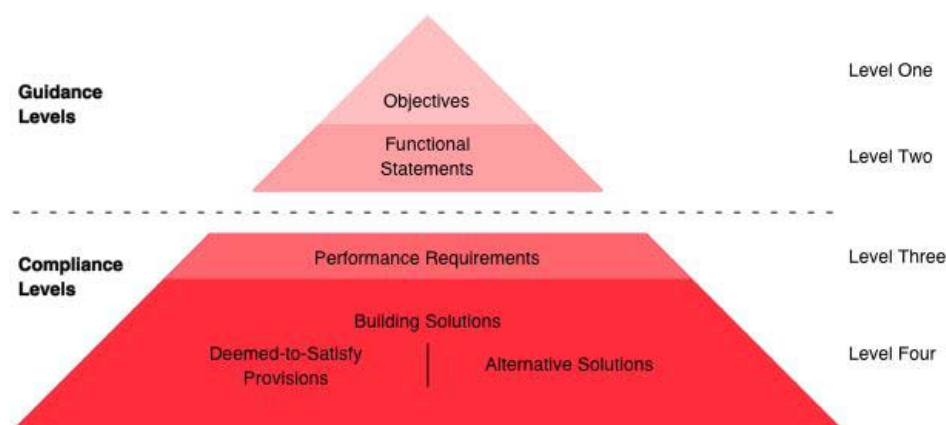
Regulation of building

Regulation of building in Australia is principally the responsibility of State and Territory governments. Each jurisdiction legislates building (that is, the requirements for the safe construction of a building) through the Building Code of Australia (BCA), referenced by State and Territory legislation. State and Territory legislation may, however, vary or add to the BCA. Local governments also regulate building through planning by-laws and (in some states) through enforcement activities.

The BCA categorises buildings across 10 classes (ranging from single dwellings to non-habitable structures) and covers such matters as ‘structure, fire resistance, access and egress, services and equipment, and energy efficiency, as well as certain aspects of health and amenity’ (ABCB 2008b). It is a ‘performance-based’ code with a four-level hierarchy (see Figure 1.1). The first two levels are guidance levels, outlining why particular matters are regulated, and how a building could be expected to satisfy these objectives. Levels Three and Four are compliance levels, describing:

- minimum levels of performance (rather than specific) that must be met by building materials, components, design factors and construction methods
- means of achieving these performance requirements — either prescriptively (through existing ‘deemed-to-satisfy provisions’) or innovatively (through an ‘alternative solution’ that can be demonstrated to meet the performance requirements of the BCA).

Figure 1.1

BCA FRAMEWORK

The Australian Building Codes Board (ABCB) produces and maintains the BCA. The Board consists of representatives from industry, the Australian Government, all State and Territory Governments and Local Government (a total of 15).

The BCA has no legal force of its own. It is brought into operation by enabling regulatory legislation in each State and Territory. State and Territory Governments retain the right to make variations to the BCA and/or introduce requirements above and beyond the BCA in their jurisdictions (see Appendix A for a diagrammatic representation of the building regulatory framework).

The current BCA framework is the result of more than 20 years effort to develop a national approach to building regulation. In consultations for this RIS, both government and industry stakeholders acknowledged the progress that has been made, and the value to the building industry of the BCA (compared with the previous system of State and Territory codes). This value is derived both from having one code adopted in each State and Territory (albeit with some variations), and the BCA being a performance-based regulatory approach, which provides greater flexibility for designers and builders (particularly for non-residential buildings).

Regulation of plumbing

In Australia, the regulation of plumbing, as with building, is the responsibility of State and Territory governments. Each jurisdiction has legislation that requires plumbing professionals to install and maintain plumbing infrastructure to meet particular performance requirements. The objective of this regulation is to ensure public safety (through maintaining the safety of potable water and ensuring safe management of sewage and waste water).

The key technical standard for plumbing is AS/NZS 3500 *Plumbing and Draining* (Parts 1-4 2003, and Part 5 2000). This standard underpins all regulated plumbing codes in Australia. AS/NZ 3500 is, however, a prescriptive standard, not a performance-based approach. In 2004 the National Plumbing Regulators Forum (NPRF) worked with the ABCB to develop a Plumbing Code of Australia (PCA) — a performance-based plumbing code similar to the BCA.

The PCA covers the ‘design, construction, installation, replacement, repair, alteration and maintenance of plumbing and drainage installations throughout Australia’ and the ‘requirements for the use of material and products in plumbing and drainage installations’ (NPRF 2004).

The structure of the PCA is consistent with that of the BCA. Specifically, it consists of two guidance levels (Objectives and Functional Statements) and two compliance levels (Performance Requirements and Solutions). As a performance-based code, the Solutions level of the PCA both provides deemed-to-satisfy provisions and allows for alternative solutions. The key standard referenced by the PCA is AS/NZS 3500.

The NPRF produces and maintains the PCA. Unlike the ABCB, the NPRF was not established by an IGA and has no executive powers. Rather, it is a cooperative arrangement between the plumbing regulators of the States and Territories (and New Zealand). The NPRF does not have sufficient resources to review and amend the PCA to the same degree as the ABCB does in their support of the BCA. There is no formal IGA supporting the implementation of the PCA, and therefore no formal commitment from jurisdictions to use the PCA as the primary code for plumbing (unlike the BCA).

Five jurisdictions currently call up the PCA (see Table 1.1), though most of these do not reference the full PCA, but specific parts. The extent to which certain parts of the PCA are referenced by jurisdictions relates to their own regulatory framework. Some parts of the PCA cover aspects of plumbing which are not regulated for in some jurisdictions. Therefore, not all parts of the PCA are required for all jurisdictions, leading to the current approach of specifying particular parts of the PCA to reference.

The remaining three jurisdictions (New South Wales, Northern Territory and Western Australia) reference AS/NZS 3500 at least in part and with modifications (see Appendix A for more detail about the various plumbing regulatory frameworks). AS/NZS 3500, thus, provides a degree of commonality in plumbing regulation across the jurisdictions – despite the mixed adoption of the PCA.

Table 1.1

ADOPTION OF THE PLUMBING CODE OF AUSTRALIA BY PLUMBING REGULATORS

| Jurisdiction | Adopted the PCA? |
|--------------|---|
| ACT | Yes , Parts A, B, C and G. |
| Qld | Yes , Parts A, B, C and G. The <i>Queensland Plumbing and Wastewater Code</i> prevails over the PCA in cases of inconsistency. |
| SA | Yes , Parts A, B, C, F2 and G. |
| Tas | Yes , the <i>Tasmanian Plumbing Code</i> references and varies the PCA. |
| Vic | Yes , Parts A, B, C, D (with restrictions), E and G. |
| NSW | No . The various agencies responsible for plumbing regulation in the State call up the <i>New South Wales Code of Practice for Plumbing and Draining</i> . This document adopts 'AS 3500:2003 and amendments and Part 5 2000'. |
| NT | No . The Territory's <i>Building Regulations</i> call up AS 3500 'published by the Standards Association of Australia as amended from time to time.' |
| WA | No . The State's regulations call up AS 3500:2003 Parts 1, 2 and 4. |

Note: This table specifies the use of the PCA by regulators responsible for regulation of plumbing practices. The PCA may be used by reference by health regulators in regulating on-site waste water management.

Source: Allen Consulting Group research of relevant legislation and regulation, supported by stakeholder consultations.

In 2007, the House of Representatives Standing Committee on Environment and Heritage inquired into the regulation of plumbing product quality in Australia, examining in particular:

- the appropriateness and effectiveness of the current plumbing product quality regulatory arrangements
- scale of environmental benefits from controlling plumbing product quality
- trade implications of controlling plumbing product quality
- potential improvements to the plumbing quality regulatory system
- the appropriate level of government to administer plumbing product quality regulation, that is, the states (as is now) or the Commonwealth.

The report from this inquiry, *Managing the Flow*, recommended that:

- the National Plumbing Regulators Forum, take a lead role in exploring, in consultation with government and industry stakeholders, options to improve the audit and enforcement profile for ensuring plumbing product quality in Australia ...
- COAG explore options for constituting a national coordinating body that can take responsibility for improving the coordination and cohesion of regulatory arrangements for controlling plumbing product quality in Australia, including the mandatory schemes, relevant standards and their application across jurisdictions.

The Australian Government's response to *Managing the Flow* and its recommendations has been prepared, but was not released at the time of drafting this RIS.

1.3 Identified problems with current arrangements

Separate building and plumbing codes overlap and are inconsistent in some aspects

Plumbing and building are not mutually exclusive activities. As the Productivity Commission noted in 2004, '[o]n-site plumbing is an integral part of the building and construction process and most plumbing is carried out in a building context'. It is therefore not surprising that the plumbing and building codes apply technical requirements to a number of similar aspects of building construction. These include: stormwater; roof guttering; disability access; and the installation of rainwater tanks, sprinkler fittings, and flexible fittings.

Overlap of technical requirements in itself is not necessarily a problem, and is likely to be necessary in many contexts (as builders and plumbers each work to produce a finished product that requires both construction and plumbing installation). Overlapping codes, however, do present a problem where they lead to inconsistent regulatory requirements.

The Productivity Commission (2007) Research Report on performance benchmarking of business regulation, drawing on the work of the 2006 Regulation Taskforce, identifies inconsistent regulatory requirements as a source of unnecessary regulatory burden – the latter being defined as 'the extent to which the compliance costs of regulation exceed what is necessary to achieve the policy objectives underlying the regulation.'

Inconsistent regulatory requirements between building and plumbing can increase costs for industry by:

- generating uncertainty over precedence (i.e. which code applies) and responsibility (i.e. which trade and regulator is accountable for certifying that a work item meets relevant standards)
- changes in on-site practices, as builders and plumbers devise solutions to meet different technical standards
- in some cases, leading to work being re-done to ensure compliance with all codes.

Consultations for this RIS tested with stakeholders the extent to which inconsistencies between the BCA and PCA (or AS/NZ 3500) are a problem. Stakeholders reported that such inconsistencies are a problem, but not an extensive one. Stakeholders also reported that uncertainty caused by areas of overlap is more likely to occur in the non-residential sector, where there is a greater reliance on performance-based solutions and, in turn, greater interpretation of the boundaries between building, plumbing and design. Some examples of inconsistencies between the codes include:

- the BCA and PCA reference different Australian Standards relating to fire hydrants and fire hose reels
- the BCA only requires disability access in specific circumstances, whereas the PCA requires all taps to comply with disability standards

- the codes duplicate requirements in areas, such as stormwater and drainage systems, heating ventilation and air conditioning and some heated water energy efficiency requirements.

Consultations for this RIS also attempted to quantify the costs associated with the inconsistencies between the BCA and PCA (or AS/NZ 3500), through a data request sent out to government and industry stakeholders. Responses indicate that, while inconsistencies exist, industry is not able to quantify their impact.

Areas of overlap between the BCA and PCA (or AS/NZS 3500) can also be problematic if they lead to the duplication of compliance and administration. This primarily involves building and plumbing regulators certifying the same aspect of a construction site. It can also involve the development of policy and technical standards.

Duplication of compliance and administration can increase costs for government (as they are replicating the expenditure of resources administering the same aspect of on-site construction) and compliance costs for industry (as they need to navigate two administrative systems for the same aspect of on-site construction). Consultations for this RIS attempted to quantify the costs associated with the duplication of regulator effort, though no industry estimates are available.

A further practical problem with current regulatory arrangements for on-site construction is the cross-border inconsistencies *within* the building and plumbing codes. These are not numerous – given the efforts of the ABCB to reduce variations to the BCA, and the universal adoption of AS 3500. Nonetheless, inconsistencies within the plumbing and building codes can impose costs on practitioners — particularly if they operate across multiple jurisdictions (for example, see Table 1.2).

Table 1.2

BCA CROSS-BORDER VARIATIONS AND OPERATIONAL DIFFICULTIES

| Question | | % |
|--|-----|----|
| 'Does your organization operate or ever conduct work in more than one state?' | Yes | 32 |
| | No | 68 |
| For those that said yes to the previous question: 'Does the existence of variations in the BCA between States and Territories make it more difficult for your organization to operate across the borders than would otherwise be the case?' | Yes | 49 |
| | No | 47 |

Source: Di Marzio Research 2008, 'A research report on Building Code of Australia subscribers', for the Australian Building Codes Board, October, South Melbourne, p.14.

There is a mixture of regulatory approaches in on-site construction

There are currently significant differences in the management of building and plumbing codes in terms of:

- how they developed, reviewed and updated
- the style, or approach, used in codes.

As noted earlier, building regulation is currently more progressed than plumbing standards in relation to the degree of national uniformity and the use of a performance-based regulatory approach. The development and amendment of plumbing standards also does not currently adopt an impact analysis (or cost-benefit analysis) to the same degree as the BCA. New South Wales, Western Australia and the Northern Territory each use prescriptive regulation for plumbing rather than performance-based regulations.

In consultations for this RIS, stakeholders consistently made this comparison between building and plumbing, noting:

- plumbing has achieved lower rates of adoption of the PCA, with greater inter-jurisdiction variations on plumbing than building; and
- the NPRF does not have the resources of the ABCB to support impact analysis, development and maintenance of measurable performance-based standards.

These issues have implications both for effectiveness of plumbing regulation and how it interacts with the BCA. In particular, where a performance-based approach in the BCA may be used, benefits from this flexibility may be limited where the relevant plumbing standard does not also allow for a performance-based solution.

The current framework is not appropriate to manage future challenges

The construction industry is facing a number of challenges that are likely to impact on traditional practice. Two of the most important and pressing of these are:

- Sustainability — severe water restrictions in many jurisdictions have brought new regulations around sustainability of water resources, and improved household water efficiency. Key areas of overlap between plumbing and building regulation (rain water tanks, roof plumbing, storm water etc) now have a growing importance.
- Disability access — how the built environment can better facilitate the movement of people with disability.

Government may determine, through policy decisions, that building codes should reflect particular community objectives (such as sustainability or disability access). Under the current regulatory framework, reflecting these new policy objectives in standards requires changes across multiple codes and legislation. In consultations for this RIS, stakeholders noted that sustainability issues in particular were not being managed consistently across building and plumbing standards. This was an area where stakeholders noted a common building and plumbing code would allow a more consistent policy approach to sustainable building design and water efficiency.

Administration varies across States and Territories

A key, though often overlooked, aspect of regulating on-site construction is administration — that is, the range of tools used by jurisdictions to achieve compliance with the requirements of on-site technical standards ‘and the enforcement mechanisms used in cases of non-compliance’ (Productivity Commission 2004). Administrative systems can thus involve licensing and registration schemes, approval and inspection regimes, and training programmes. The States and Territories have responsibility for administering plumbing and building regulation in Australia.

In contrast to the progress that has been made in developing a nationally adopted building code, Australia does not have a consistent administrative system for applying these standards. The extent of coordination of administration currently varies considerably across States and Territories, with some jurisdictions (Queensland, Tasmania, Australian Capital Territory and the Northern Territory) currently having a combined agency and Ministerial responsibility for building and plumbing standards, while Victoria’s Building and Plumbing Commissions are closely linked (and soon to be co-located). The most complex administrative system is in New South Wales, where building and plumbing regulation are housed in separate agencies, and where plumbing regulation is administered through five water utilities and local councils. NSW is currently undertaking a review of the institutional and technical arrangements for regulating plumbing and drainage which may change the way plumbing is regulated in the State. The outcomes of the review may impact on any future transition to a NCC.

Variations in administrative arrangements impose costs to industry (and ultimately consumers) where there is a need to understand and operate within different administrative requirements. These differences include practices for development applications, building applications, appeals, certification and insurance. An Allen Consulting Group study conducted in 2002 estimated that harmonisation of building administration alone could result in savings to the community of between \$214 million and \$402 million per year across the economy. These savings would likely be realised by:

- government, in the form of reduced costs associated with the approval, development and ongoing regulation of buildings
- industry, in the form of lower compliance costs, greater economies scale and increased certainty
- consumers, in the form of reduced building times, greater certainty, and improved quality and safety of buildings.

Chapter 2

Objective of government action

Prior to assessing options to address the identified problems, it is important to establish the objectives of government action. This objective should be independent of any individual solution, and be sufficiently broad to allow consideration of a range of alternative solutions.

This RIS involves assessing a proposal to amend an existing regulatory framework. As such, the intent of government action is to improve the effectiveness of the current regulatory framework in achieving its objectives. The common objective of both building and plumbing regulation is to ensure the sustainability, health, safety and amenity of buildings by establishing minimum standards for construction and redevelopment or refurbishment of buildings.³ This objective is currently addressed through regulation of standards of practice (in combination with other regulation, such as occupational licensing).

For this RIS, the objective of government action is therefore to improve the effectiveness and efficiency of the current approach ensuring standards of practice.

³ The objective of the Australian Building Codes Board is to 'establish building codes and standards that are the minimum necessary to achieve relevant health, safety, amenity and sustainability objectives efficiently' (ABCB 2006)

Chapter 3

Options that may achieve the government objective

As part of the RIS process, it is necessary to describe and consider the different options that can be used to achieve the stated objective. COAG guidelines for best practice regulation require that options considered represent the spectrum of regulatory approaches — including regulatory, co-regulation and non-regulatory approaches.

3.4 The base case — maintain current approach

Cost-benefit analysis seeks to estimate the incremental or induced impacts to stakeholders that can be directly attributed to the proposed options. In order to do so, it is necessary to have some idea of what would have happened if none of these options were exercised — effectively, if the current approach were maintained. In this assessment, the current approach includes not only a continuation of actions (that is, extrapolating the past into the future) but also reported future policies that can reasonably be expected to have an impact on the problems identified in chapter 2.

For this RIS, the base case approach would involve maintaining separate codes for building and plumbing. The current administrative frameworks would be maintained, though may be influenced by other reforms such as a national licensing framework.

3.5 Proposal for a National Construction covering building and plumbing

The main option being assessed in this RIS is the consolidation of current building and plumbing into a National Construction Code. The details of this proposal, including the specific technical performance requirements within a NCC, have yet to be finalised, and therefore cannot be tested in this RIS. At this stage, the NCC model most strongly supported by stakeholders is one that:

- brings together building and plumbing performance requirements from the BCA and PCA as a first step, with areas of overlap and duplication reduced over a transition period
- is developed in a performance-based style consistent with the current BCA
- is supported by an IGA similar to that currently used for the BCA, which should reflect the inclusion of plumbing performance requirements.

A majority of industry stakeholders support a model which includes a plumbing code as a third volume of the new NCC, allowing plumbers to easily identify those standards which pertain directly to them (as is the case currently with the separation of housing provisions in the BCA Volume 2).

Another suggested approach for formatting a NCC was to have a 'Section K' in the NCC for plumbing. This would help to integrate building and plumbing codes by using common definitions and references to Australian Standards. Under this suggestion, each NCC section could be sold separately, so that specialist trades/professions would not have to purchase the entire code.

There are several elements of this model that are addressed in the Report of the IGA review, which was provided to government in March 2009. These include the governance model, the funding model and commitments in the IGA (for example, in relation to variation reduction and harmonisation of administrative systems). This RIS reflects the findings and conclusions of the Report, where appropriate.

Consistent with the NCC Implementation Plan, this RIS is considering two implementation sub-options.

Sub-Option 1

This would involve the addition of the PCA to the BCA as a separate volume, making little if any changes to the two individual codes but with the view to addressing issues of consistency and overlap in subsequent versions of the NCC.

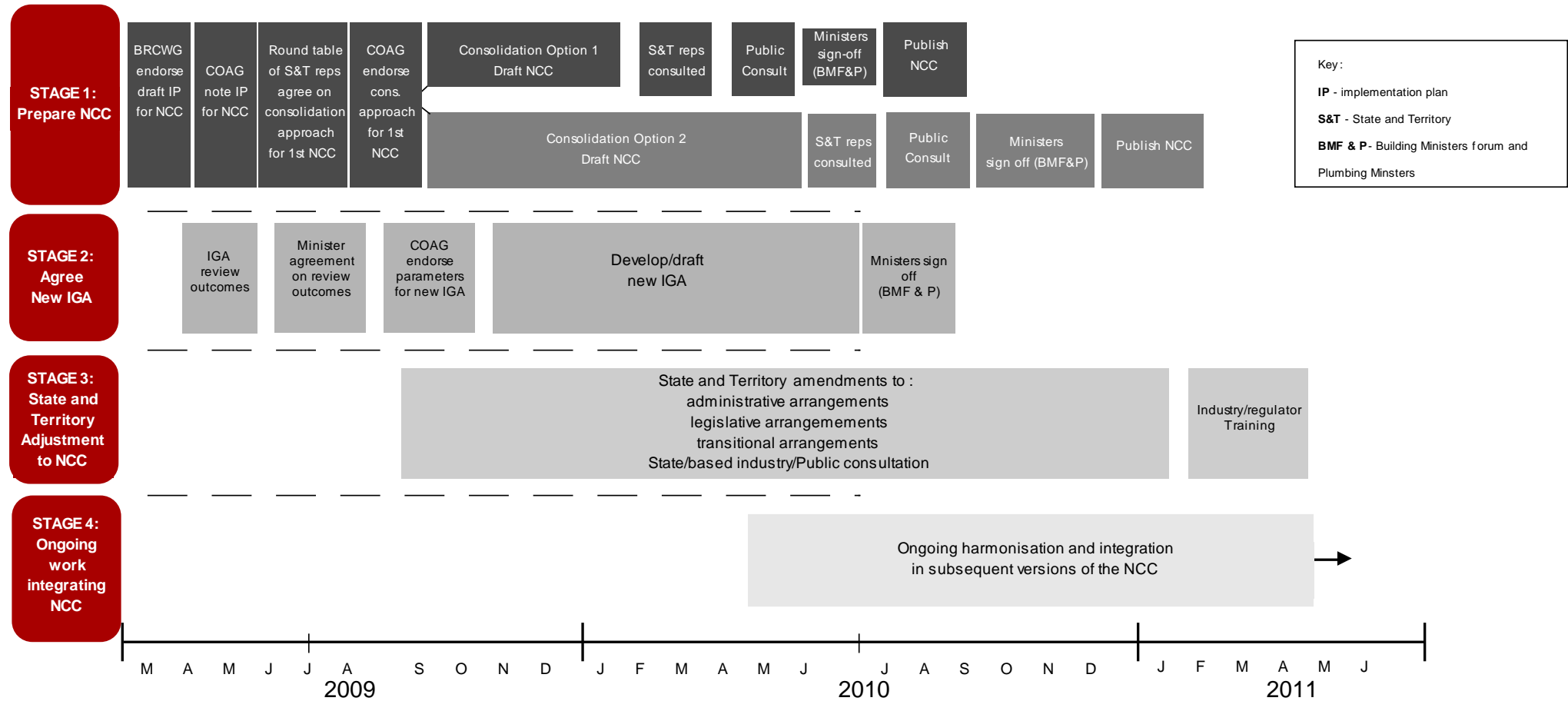
Sub-Option 2

This would involve a more substantial consolidation that aims to merge the two codes including identifying and addressing areas of inconsistency and overlap prior to publishing the first version of the NCC. The time required to implement this sub-option (in terms of time taken by government to develop the code itself) is expected to be longer than for Sub-Option 1 (as shown in the implementation timeline).

Figure 3.1 provides a proposed timeline for implementing the NCC, including the different requirements for sub-options 1 and 2.

Figure 3.2

NCC IMPLEMENTATION STAGES AND SUB-OPTIONS



3.6 Other potential policy options

This RIS also considered other quasi-regulatory and non-regulatory options. These options, however, are not considered to be sufficiently feasible to assess further.

A co-regulatory, or quasi-regulatory approach is where government and industry work together to develop guidelines or a code of practice to clearly set out the inter-relationship between building and plumbing codes. This option was not considered feasible because it was incompatible with the current regulatory model, particularly for building regulation, which already includes strong industry involvement in standard setting. Such an approach may also exacerbate the identified problems by adding an additional layer of complication to the system, rather than improving efficiency.

To address the identified problems, non-regulatory options may be information or education campaigners or programs which inform builders and plumbers about how to work with multiple codes, what to do in cases where there are inconsistencies and how to work with performance based regulation. Industry associations report that they already provide such education for their members, informing them of the BCA and educating them on working with regulations more broadly. A barrier to further use of information tools in this context is that they rely on voluntary take-up. Information tools also have no influence on the underlying regulatory requirements, meaning that they are limited in their ability to address inefficiencies in regulation.

These options are limited in their effectiveness because they are not able to address the underlying problems in the current regulatory approach. The following assessment therefore considers two options — maintain the current regulatory framework or implement a NCC.

Chapter 4

Impact analysis

4.7 Introduction

The impact analysis in a RIS should assess all potential costs and benefits of options for change, and provide a basis for the recommended approach. Costs and benefits assessed should include both quantifiable and non-quantifiable impacts.

This RIS identifies the types of costs and benefits derived from a NCC, and in some instances provide estimates of these costs. This analysis is focused on the proposal of a NCC as a consolidation of the BCA and PCA — effectively the first consolidated version of the NCC, planned for release in 2010. Revisions to the NCC beyond 2010 will be the subject of future RIS analysis.

4.8 Industry compliance costs

Building and plumbing practitioners and businesses already incur costs to comply with current codes and regulations. Assessing the compliance costs on business of a NCC therefore needs to identify the *additional* costs of compliance imposed due to the introduction of NCC — compared with maintaining the current arrangements (separate building and plumbing codes).

The OBPR Business Cost Calculator identifies eight types of costs to business from government intervention (such as new regulation):

- *Notification*: costs of reporting transactions before or after the event
- *Education*: maintaining awareness of regulations and regulatory changes
- *Permission*: applying for and obtaining permission
- *Purchases*: materials and equipment required for compliance
- *Record keeping*: keeping statutory documents up-to-date
- *Enforcement*: such as facilitation of audits and inspections
- *Publication and documentation*: such as displays and labels
- *Procedural*: required compliance activities such as fire drills and safety inspections.

Consultations with stakeholders suggest that there are three potential types of compliance costs of a NCC:

- transition costs for practitioners — builders, plumbers, designers, architects and engineers;
- costs of technical change, where a NCC sets technical performance requirements that differ from the current arrangements (either from the BCA, PCA or other plumbing code adopted in a particular State or Territory); and
- costs of purchasing a NCC — builders, plumbers, designers, architects and engineers.

Costs to professions of updating of regulatory settings

At a minimum, the introduction of a NCC would impose adjustment costs on industry. Those professionals and trades-people who use either the BCA or current plumbing codes will incur time costs of getting up-to-date with the new code. These costs will be incurred through individuals reviewing the code themselves, or attending a seminar or training session on the NCC.

These costs are not expected to differ between Sub-Option 1 and Sub-Option 2 for implementation of a NCC, though the timeframe of when costs may be incurred will differ (being later for Sub-Option 2). This assumption is based on the need for industry to incur a one-off cost to adapt to the new model, with future costs of changes to the code similar to those already incurred through the current revision processes of the BCA and plumbing regulation. In this sense, whichever implementation approach is adopted, there will be an initial 'step change' cost for practitioners to adapt to operating under a NCC.

Estimating practitioners potentially impacted by transition to a NCC

Estimating transition costs for industry in moving to a NCC requires data on the number of practitioners who may incur these costs. Analysis for this RIS found a range of potential data sources on individuals by occupation, though the variation of estimates is broad.

ABS Labour Force data is the primary data source for the estimates in this RIS, which was chosen because it provides a reasonably consistent estimate approach across States and Territories. Using ABS classifications, 'builders' have been classified as individuals working under five different occupational classifications. Plumber data is drawn from the ABS plumber classification.

In comments on a Draft RIS, the ACT and Queensland have provided alternative estimates of practitioners in their jurisdiction based on licence data (for Queensland the adjustment was made to the plumbing estimate only). There was a further suggestion that data collected for the national licensing initiative be used in this analysis. This option was explored, with the National Licensing Scheme RIS providing some estimate for builders and plumbers and gasfitters (as a combined category). The RIS notes, however, that these numbers are considered to be 'minimum number of licences held as data is difficult to confirm and not all State and Territory figures have been provided', and are therefore not considered to be sufficient robust to over-ride the ABS estimates.

Using licence data is also potentially problematic because licensing arrangements differ across jurisdictions, and some occupations which are not licensed may still need to be included in estimates for this RIS (for instance, bricklayers are not licensed in all jurisdictions). Further, updated data from the ACT and Queensland based on licence data does not provide a good indication of whether the ABS numbers are consistently higher or lower than licence data (as ACT numbers were revised up and Queensland numbers were revised down).

Taking these methodological issues into account, estimates for numbers of employed are provided in Table 4.1. These estimates are primarily based on the ABS, with some data that has been directly provided by jurisdictions. These data were further tested through release of the Consultation RIS, with no revisions to the numbers provided stakeholders in submissions. One submission did suggest including numbers of engineers in these estimates, which has been added in the table below for this Decision RIS, based on an estimate provided by Engineers Australia of the total number of engineers that would likely need to use a NCC in their work.

Table 4.1 provides State and Territory break down for each occupation, though it should be noted that there is currently no publicly available data on the jurisdictional breakdown for building surveyors and engineers (the estimate from Engineers Australia). For both of these occupations the ratio of builders has been used, though this is an estimate which should be used as an indicative breakdown only.

Table 4.3

NUMBERS OF EMPLOYED, BY OCCUPATION AND STATE (000s)

| Occupation | NSW | VIC | QLD | SA | WA | TAS | NT | ACT | TOTAL |
|--------------------|------|------|------|------|-----|-----|------|------|--------------|
| Builders | 70.7 | 54.6 | 52.7 | 13.8 | 18 | 5.1 | 2.5 | 2.4 | 219.8 |
| Plumbers | 20.1 | 21.4 | 14.6 | 2.2 | 9.5 | 1.8 | 0.9 | 1.6 | 72.1 |
| Building Surveyors | 1 | 0.7 | 0.7 | 0.2 | 0.3 | 0.1 | 0.03 | 0.05 | 3.1 |
| Architects | 6.9 | 5.2 | 3.1 | 0.8 | 1.1 | 0.1 | 0.1 | 0.3 | 17.6 |
| Engineers | 19.9 | 15.4 | 14.8 | 3.9 | 5.0 | 1.4 | 0.7 | 0.6 | 62.0 |

Source: ABS (2008c); ACT Submission; Architects Board of South Australia (2008); Qld Submission; Engineers Australia (personal communication)

Notes: The number of building surveyors is based on a national estimate of 3 000 (supplied by the Australian Institute of Building Surveyors), divided across the States and Territories using the ratio for builders, as well as estimates provided by the ACT. The *Builders* group is the sum of Construction Managers, Bricklayers and Stonemasons, Carpenters and Joiners and Roof Tilers. Architects estimate comes from the Australian Council of the Built Environment Design Professions Ltd (2008) and figures from the Architects Board of South Australia. The Engineers estimate was provided by Engineers Australia.

Estimating time costs for industry to update knowledge on new regulatory arrangements

The introduction of a NCC would impose costs on professionals and trades-people by requiring them to invest time in understanding the new code. Estimates of time costs should be based on the opportunity cost of the time invested in training, which has a productive value. For employees, this cost is essentially the average wage, as this is the cost of replacing that worker with another for the time required for training. Even for sole traders, a wage rate may be appropriate where the cost of time away is to hire someone to replace them for that period. In reality, most self-employed person will take on training in out of hours time, particularly where the requirements are small (a few hours for instance).

Table 4.2 outlines estimated transition costs for industry. These estimates provide an indication of the likely costs by occupation and jurisdiction.

The transition costs are likely to vary across jurisdictions, particularly for plumbers (given the variation in plumbing regulation under current arrangements).

Table 4.4

ESTIMATED COST TO INDUSTRY OF TRANSITION TO A NCC (\$'000)

| | Builders | Plumbers | Building Surveyors | Architects | Engineers | TOTAL per jurisdiction |
|--------------|--------------------|-------------------|---------------------------|-------------------|-------------------|-------------------------------|
| NSW | \$4,038.38 | \$2,870.28 | \$108.87 | \$753.48 | \$2,166.58 | \$9,937.60 |
| VIC | \$3,118.75 | \$1,222.37 | \$84.08 | \$567.84 | \$1,673.20 | \$6,666.25 |
| QLD | \$3,010.22 | \$837.49 | \$81.14 | \$338.52 | \$1,614.98 | \$5,882.35 |
| WA | \$788.26 | \$125.66 | \$21.29 | \$85.29 | \$422.90 | \$1,443.40 |
| SA | \$1,028.16 | \$1,356.60 | \$27.74 | \$120.12 | \$551.61 | \$3,084.22 |
| TAS | \$291.31 | \$102.82 | \$7.86 | \$10.92 | \$156.29 | \$569.20 |
| NT | \$142.80 | \$128.52 | \$3.82 | \$10.92 | \$76.61 | \$362.67 |
| ACT | \$137.03 | \$90.08 | \$4.91 | \$34.51 | \$73.52 | \$340.05 |
| TOTAL | \$12,554.92 | \$6,733.82 | \$339.72 | \$1,921.59 | \$6,735.68 | \$28,285.73 |

Source: Allen Consulting Group estimates based on occupational data in Table 4.1 and wages costs as set out in this report. Totals may not sum due to rounding.

Estimates in Table 4.2 are based on the following assumptions:

- builders, building surveyors, architects and engineers across Australia will require two hours to bring themselves up-to-date on the NCC;
- plumbers in jurisdictions that already have a performance-based plumbing code (ACT, Qld, SA, Tasmania and Victoria) will only require two hours to adjust to the NCC, while plumbers in the remaining jurisdictions (NSW, NT and WA) will require five hours;
- the cost estimates do not assume that all professionals or trades-people will incur these costs — it is assumed that 60 per cent of builders and plumbers and 100 percent for building surveyors, architects and designers, and 80 per cent of engineers will incur costs of transition to a NCC (see Box 4.1); and
- the cost of labour is based on an average hourly rate for each occupation, including on-costs:
 - Buildings and plumbers — \$47.60 per hour,
 - Architects, designers and surveyors — \$54.60 per hour,
 - Engineers — \$67.9 per hour.⁴

In consultations for this RIS, submissions noted that the assumption in the Consultation RIS of average hour wage used was too low for the occupations in question. These estimates have been revised, though are still based on ABS estimates. They now also include on-costs reflecting costs of superannuation, workers compensation and other costs for employees associated with employing staff.

⁴ Wages estimates based on ABS 6360.0 (August 2008). The ratio of on-costs is of 1.75 is applied to ABS estimates.

Box 4.1

INDUSTRY ENGAGEMENT WITH THE BCA AND PCA

Our estimate that 60 per cent of builders will incur transition costs in moving to a NCC is based on the following assumptions:

- according to a survey conducted by Master Building Australia (MBA) of its membership, 78 per cent of respondents had access to the BCA
- a proportion of those builders that have access to the BCA would not necessarily use the code (at least beyond a superficial interaction) due to the nature of their on-site responsibilities. For example, they may be skilled labourers (such as bricklayers) who are familiar with the standards relevant to their trade, but rely on a contractor or construction manager to ensure compliance with the BCA.

While we do not have similar data to that of the MBA survey for surveyors and architects, we assume that a greater proportion of these professions are likely to use the BCA, given the centrality of the code to the performance of their respective duties. Hence, we estimate that 100 per cent of building surveyors and architects are likely to incur transition costs.

We do not have access to data about what proportion of plumbers have access and/or use the PCA. Accordingly, we have assumed that a similar proportion of plumbers as builders will incur transition costs – that is, 60 per cent.

Industry written comments on the Consultation RIS were supportive of this estimate.

Source: Master Builders Australia (2004)

It is important to note that the BCA is currently updated on an annual basis and that mechanisms already exist to help building practitioners keep themselves up to date with these changes. It is therefore likely that these estimates are an *upper bound* of potential costs incurred. Transition costs for the NCC could be lower if the process of adjusting to the NCC can be conducted through existing updating and education processes in place for the BCA (in the case of builders).

Costs of purchasing a NCC

The ABCB currently sells copies of the BCA, with prices varying depending on format (hardcopy, DVD-ROM, or online), levels of access (in the case of online versions), and number of volumes purchased. The PCA is currently sold through SAI Global in two formats (see Table 4.3).

Table 4.5

CURRENT BCA AND PCA PURCHASING OPTIONS AND PRICES

| Item | Format | Price |
|--|--|---------|
| <i>BCA 2008, Volume One (Class 2 to Class 9 Buildings) & Volume Two (Class 1 & Class 10 Buildings)</i> | Hardcopy, online and DVD-ROM | \$495 |
| | Hardcopy and online | \$265 |
| | DVD-ROM | \$265 |
| | DVD-ROM – additional user-license | \$150 |
| | Online – additional user-license | \$150 |
| | Online – 30 consecutive days of access | \$40 |
| | Online – occasional access (a total of 12 days over 12 months) | \$40 |
| <i>BCA 2008, Housing Provisions (Volume Two – Class 1 & Class 10 Buildings)</i> | Hardcopy | \$150 |
| | DVD-ROM | \$150 |
| <i>PCA 2004</i> | Hardcopy | \$93.50 |
| | PDF | \$84.15 |

Source: ABCB (2008a); SAI Global (2009).

Note: Practitioners can only buy online access to the BCA if they already have a hardcopy of the code.

The extent to which a NCC will impose additional purchasing costs on building and plumbing practitioners will depend how governments choose to fund the NCC under the new IGA. One approach would be to carryover the current funding model of the ABCB. An alternative approach would be for a NCC to be made freely available online, with hardcopy versions charged on a cost-recovery basis. The shortfall in funding would be made up by a proportional increase in contributions from all governments.

Advice provided by governments in the development of the Decision RIS indicated that this matter is still under consideration. However, for the purposes of this Decision RIS the current funding model will be maintained. Under this assumption, the NCC would impose additional purchasing costs on plumbers, compared with the current arrangements. This is because plumbers will be moving from a regulatory environment where they either:

- are not required to buy the PCA, because the PCA was not used in their jurisdiction; or
- are required to buy the PCA, but not regular updates (the PCA has not been updated since its introduction in 2004).

If a NCC were introduced, plumbers would need to keep abreast with an annually-updated NCC, which means purchasing the code (though, we should note that there is no legal requirement to own a copy of the code). Under the current funding model, we estimate the additional purchasing costs for plumbers to be \$6.49 million each time the NCC is updated, based on the following assumptions:

- there are 72 100 plumbers across Australia (see Table 4.1);

- only 60 per cent of plumbers will incur the costs of purchasing a NCC (we have assumed that a similar proportion of plumbers will incur purchasing costs as will incur transition costs – see Box 4.1 above); and
- a hard-copy or DVD-ROM of the relevant plumbing elements of a NCC will cost the same as Volume Two of the BCA (\$150)

Practitioners who usually purchase the BCA would also have to purchase the NCC, but this is not an addition cost to them as they should regularly upgrade to new versions of the BCA. The purchase of an NCC would therefore take the place of an annual update of the BCA.

Potential costs to industry of technical changes

Another area where there may be costs from a NCC is where it leads to changes to technical practice, which require adjustment by industry. Such changes may occur if a deemed-to-satisfy solution is changed. For example in plumbing some jurisdictions do not use performance based regulation, so where the NCC brings performance-based regulation in for the first time there may be costs due to the NCC referencing deemed-to-satisfy solutions that are different from the current code. That said, the performance-based framework is designed to provide flexibility for industry, and the deemed-to-satisfy solutions are not prescribed (and therefore shouldn't be treated as required practice).

In consultations for this RIS, stakeholders were asked:

- whether bringing the BCA and PCA into a single code would lead to significant changes to technical practice for builders and plumbers; and
- to provide an indication of potential costs from such changes.

The general view from stakeholders is that technical changes under the NCC would be minimal and the underlying technical practice which is used to comply with the BCA and PCA/AS 3500 will remain the same, or very similar. A number of possible technical changes were identified (see Box 4.2), but their impact is not likely to be significant.

Box 4.2

EXAMPLES OF POSSIBLE TECHNICAL CHANGES

'A specific example of a technical change includes the requirement in the Plumbing Regulations 2008 to conduct air testing of sanitary drains at properties not provided with non-drinking water. This change to an Australian Standard has been included in the Plumbing Regulations to conserve water in consideration of Victoria's water shortage.' (Victorian Plumbing Industry Commission, 2008)

'A proposal to consolidate the BCA and PCA would require changes in technical building standards in WA. Building standards adopted through building legislation do not currently include technical plumbing requirements. WA has not yet adopted the PCA and calls up the relevant Australian Standard directly.' (Western Australian Department of Housing and Works, 2008).

Source: Stakeholder submissions.

Furthermore, no stakeholders were able to provide data on potential costs of technical changes, with the majority indicating that there should not be any significant change in industry practice.

4.9 Costs to government

There are three types of costs that governments will incur through the introduction of a NCC:

- implementation costs, which is essentially the cost of developing the NCC itself;
- costs of changes to legislation and administration; and
- communications costs, which are costs associated with assisting industry to adjust to the new code.

These are discussed in turn below.

Costs of developing and implementing the NCC and governance model

Development of the NCC

In the first instance, the Commonwealth, State and Territory Governments will incur costs of developing a NCC. According to the NCC Implementation Plan, the development of a NCC will involve:

- an initial roundtable of representatives of building and plumbing regulators from the Commonwealth, State and Territory governments to agree on the structure and regulatory approach of the NCC
- the convening of a small group of building and plumbing technical experts to consolidate the BCA and PCA/AS 3500 – based on the guidance provided by the initial roundtable meeting
- stakeholder consultation on the consolidated code
- subjecting the draft NCC to a Regulatory Impact Assessment
- Ministerial endorsement of the NCC.

Key expenses associated with this process include:

- the time of government personnel to attend meetings and committees (it is not known at this stage how many personnel will be required, or for how long)
- airfares, accommodation and living expenses for government personnel to attend meetings/committees
- costs of seconding technical experts if not government employees (e.g. salaries, airfares, accommodation and living expenses)
- stakeholder consultation costs – this is likely to involve printing and distributing copies of the draft NCC, establishing a website, and organising forums in all capital cities and key regional areas
- undertaking a RIS of the technical changes in the NCC.

The overall cost associated with developing a NCC will vary depending on which implementation sub-option is chosen. Sub-Option 1 aims to combine the BCA and PCA with little if any changes to the individual codes. Sub-Option 2 would involve a more substantial consolidation of the building and plumbing codes. The latter sub-option would thus likely impose greater administrative costs in developing a NCC than the former. These costs would primarily be:

- extra time and associated expenses for the small group of technical experts to consolidate the BCA and PCA
- time and associated expenses for possible additional meetings of the regulator roundtable.

The costs of development of a NCC under Sub-Option 1 are estimated at \$1.75m. Government has advised that the *implementation* cost of developing a NCC under Sub-Option 2 would be approximately twice this amount, driven by the increase time costs and expenses for government agencies to undertake the consolidation of technical elements of the BCA and plumbing codes prior to release of the first NCC.

A submission from Standards Australia to the Consultation RIS suggests that they should be involved in the process of consolidating codes, which they consider will also require revision of specific Australian Standards. Revision of Australian Standards is not a cost that was raised by any other stakeholder in consultations. Standards Australia report that they would expect governments to providing funding for these revisions, though no estimates of these costs were provided. The full extent of these costs will be determined once governments agree the involvement of Standards Australia in the NCC process, and to what extent they would require revisions to specific Australian Standards. The cost of this aspect will be in addition to those estimates in this RIS.

Some comments on the Consultation RIS noted that it had not specified costs to the NPRF of developing the NCC. The NPRF is a body comprising members of each jurisdiction, if governments decided that the NPRF will be a body which conducted a proportion of the work involved in developing a NCC, the costs to NPRF will be in line with those outlined above (that is, these are not additional costs to the NPRF, as the costs of development are already assumed in the impact analysis).

Establishment of NCC governance arrangements

The introduction of a NCC would require a new IGA, and provides an opportunity for governments to consider changes to the current governance model for the BCA. Advice from government for this RIS suggests that there will be minimal changes to the governance approach, with plumbing regulators brought in under the current ABCB model (with appropriate Board representation and committee membership). On the basis of this decision, there will be a small cost to plumbing regulators, though minimal costs to government overall of moving to this model.

Administrative and legislative adjustment costs for State and Territory governments

Legislative changes

The implementation of the NCC will require legislative change across State and Territory governments. At a minimum, all jurisdictions will have to amend building Acts and regulations to reference the NCC, rather than the BCA. The adoption of the NCC in plumbing Acts and regulations will likely require a more extensive lexical modification. This would involve referencing the relevant volumes of the NCC and removing all other technical on-site technical requirements covered by the NCC (assuming that all State and Territory plumbing variations will be listed in an appendix to the national code).

For some jurisdictions, depending on their chosen implementation strategy, further legislative costs could include:

- reviewing existing Acts, regulations and planning policies to uncover the best approach to implementing the NCC
- transferring responsibility for building and plumbing to a single agency
- transferring responsibility for building and plumbing to a single Minister.

Given the current administrative structures in New South Wales and South Australia, these states are likely to incur greater legislative costs relative to the other States and Territories.

Administrative changes

For those State and Territory governments which have entrusted responsibility for building and plumbing regulation in a single agency (such as the Australian Capital Territory, the Northern Territory, Queensland and Tasmania) the administrative costs in implementing the NCC are likely to be minimal.

The costs for Western Australia are also likely to be minimal, given that the State is already going through the process of reforming its *Building Act* and consolidating responsibility for plumbing and building regulation into a single agency.

For the remaining jurisdictions (New South Wales and South Australia), the administrative costs will be dependent on how they choose to proceed with implementing the NCC. Specifically, both jurisdictions are likely to incur greater administrative costs if they choose to consolidate the current bodies responsible for building and plumbing regulation into a single agency. New South Wales is also likely to incur greater costs if it chooses to consolidate responsibility for plumbing regulation into a single agency.

The Report of the IGA review recommends the development of an implementation plan by 2012 to progress the harmonisation of NCC administrative systems. This would define the goal of harmonisation, identify priorities, and establish commitments and timeframes for the States and Territories. It would not be appropriate to attribute the costs associated with developing and executing this implementation plan to the NCC, as its key drivers are the findings and conclusion of the IGA review.

The cost estimate in this RIS estimate administrative and legislative costs at:

- \$100,000 for small jurisdictions or those with minimal required changes (ACT, Northern Territory, Tasmania, Western Australia);
- \$150,000 for larger jurisdictions, or those with more significant changes (New South Wales, Victoria, South Australia, Queensland).

Communication and training

The Commonwealth, State and Territory governments will need to:

- provide training for their own staff and other relevant government personnel (such as those in local government) about the NCC; and
- communicate the introduction of the NCC and its implications to industry associations and practitioners more generally.

Communication and training costs are likely to be greater for those jurisdictions that are unfamiliar with a performance-based approach to plumbing regulation (New South Wales, the Northern Territory and Western Australia).

Building Codes Queensland estimate that its one-off training and communication costs will be \$250 000. The Tasmanian Department of Justice estimated a total of \$300,000 for combined administrative, legislative and communications costs. On this basis the cost estimate in this RIS estimate communications costs at:

- \$200,000 for small jurisdictions or those with minimal required changes (ACT, Northern Territory, Tasmania, Western Australia); and
- \$250,000 for larger jurisdictions, or those with more significant changes (New South Wales, Victoria, South Australia, Queensland).

Ongoing costs

There are two primary types of ongoing costs associated with a NCC. The first of these is the cost of administering building and plumbing regulation in the States and Territories. This ongoing cost is unlikely to increase, as existing administrative systems would not necessarily need to be changed as a result of implementing a NCC. It is possible that the States and Territories may incur additional costs if they choose to harmonise their administrative systems (in line with the recommendation of the Report of the IGA review). It would not be appropriate, however, to attribute these costs to the NCC, as the new IGA is likely to play a greater role in facilitating the goal of harmonisation.

The second type of ongoing cost is that of maintaining and updating a NCC. At present, the ABCB and NPRF incur costs in administering the BCA and PCA, respectively. Moving to a NCC is likely to increase this type of ongoing cost relative to current expenditure as:

- the NPRF (due to structural and financial constraints) does not review the PCA annually
- the plumbing components of a NCC, in contrast, are likely to be subject to such levels of regulatory appraisal.

However, when tested with stakeholders, this likely increase in the ongoing cost of maintaining and updating a NCC was generally thought to be similar to the current costs of maintaining building and plumbing frameworks separately.

A final point is that, if governments agree to the recommended funding model in the Report of the IGA review (which relies less on sales of the Code), their annual contribution to the NCC model would increase from what they currently contribute to the ABCB and (if relevant) the NPRF. This increase, however, should not be attributed to the NCC, as the primary driver of the recommended funding model is the findings and conclusion of the Report of the IGA review.

4.10 Comparison of costs and benefits

A summary of the types and scale of potential costs and benefits from a NCC is set out in Table 4.4.

Table 4.6

ESTIMATED COSTS OF A NCC

| Cost category | Estimate (\$) |
|---|---|
| Industry transition costs to NCC | \$28 285 000 |
| Costs of purchase of NCC by plumbers | \$6 760 000 |
| Costs of development of the NCC (government) (Sub-Option 1) | \$1 750 000 |
| Costs of legislative and administrative changes (State and Territory governments) | \$1 000 000 |
| Costs of communications (State and Territory governments) | \$1 800 000 |
| Costs of technical change | Expected to be minimal, no estimate able to be provided by government or industry |
| TOTAL | \$39 595 000 |

4.11 Benefits

The proposal for a NCC is seeking to improve the current regulatory framework for building and plumbing. The potential benefits of the proposal, therefore, will be the extent to which it improves on the current regulatory arrangements (as described in Chapter 1 of this RIS), and where these improvements deliver benefits to stakeholders. In consultations for this review, stakeholder input was sought on the potential type of scale of benefits of a NCC, including:

- efficiency gains to governments through consolidation of administration for building and plumbing;
- reduced costs to firms operating at a national level (through more consistent regulation);
- efficiency gains on-site in operating from one code; and
- economies of scale in building products.

The response from industry and government stakeholders indicated that there are expected benefits from a NCC in the following areas.

Improved consistency between building and plumbing practice

A majority of industry stakeholders in consultations agreed that the NCC would be beneficial for industry by improving the consistency of practice between trades. Such benefits were considered to be most relevant for the non-residential sector, with potential for only small gains in the residential sector (due to low mobility of the sector across jurisdictions and greater use of deemed-to-satisfy provisions rather than performance-based solutions in construction practice).

As the ABCB Chairman reported in his submission to the IGA review:

A model along the lines of the NCC would bring greater consistency and scrutiny to the "whole of building" process. It would overcome duplication where this now exists and reduce compliance costs. It would also bring Australia in to line with best international practice in the regulation of buildings (ABCB Chair submission, p.23).

In this context, the benefit for industry of a NCC is in improved efficiency and lower costs of construction (through reduced delays which may have been due to errors or changes needed as a result of different approaches by practitioners on-site). Industry stakeholders did not consider that the potential for efficiency gains was very large, but perhaps in the order of 2-3 per cent for the non-residential sector.

Improved framework for regulation of plumbing on a national basis

The NCC will deliver benefits through a better framework for regulation of the plumbing industry, provided through an IGA for plumbing and a framework to develop and maintain a national performance-based standard. The experience of the BCA in this context was that moving to performance-based regulation alone reduced costs for large scale building projects by between 1 and 5 per cent. While there are some performance-based regulations in plumbing regulations already, bringing consistency to this approach, and bringing it in line with BCA framework, should provide further benefits (Productivity Commission 2004).

Improved regulatory framework to respond to future policy challenges

A key benefit of a NCC, identified by government stakeholders, is that it provides a regulatory framework to respond to future issues in a holistic way (that is, considering both building and plumbing aspects through the one code, rather than through multiple codes). Where separate codes are maintained, if government wishes to progress policy (such as sustainability measures) which impact on both building and plumbing practice it must work across multiple codes through different governance arrangements.

Improved regulatory conditions for innovation at the national level

A small number of stakeholders considered that the construction sector would benefit from a NCC through improved conditions for innovation. Such innovation will assist in addressing future policy changes, including climate change.

Opportunity for administrative reform

The NCC provides an opportunity for State and Territory governments to consider both the structure of their administration of building and plumbing regulation within their own jurisdiction, and the consistency of administration across jurisdictions. The *actual* benefits achieved as a result of a NCC will depend on the 'appetite' of governments for this reform. The business case for the NCC recommended that COAG:

use the National Construction Code as an opportunity to pursue further reform in variations across State, Territory and Local Governments in both technical standards and administration (ACG 2008).

There is greater potential for the new IGA to affect greater reform of administrative systems than the NCC itself. It is important to note, however, that the NCC will not necessarily reduce cross-border inconsistencies within the plumbing and building codes. Other factors, such as the flexibility of the NCC model to react to change and the willingness of the jurisdictions to limit variations, will also play key roles.

Estimating benefits of a NCC

The above types of benefits identified for the NCC are each important for both the efficiency and productivity of the construction sector, and the efficiency of regulatory and administration for building and plumbing.

In consultations for this RIS, while a majority of stakeholders agreed that a NCC would deliver benefits to industry and the community, none were able to make an estimate of the potential scale of these benefits. This is primarily because the types of benefits from a NCC are not readily estimated in the same way that costs are. One method of assessing the potential for a net benefit from a proposal is to determine under what circumstances that benefits would cover costs— that is, what is the breakeven point where sufficient benefit would be achieved?

A break-even analysis identifies the minimum quantum of benefits needed for a regulatory proposal to provide a net positive outcome. A break-even analysis is attractive because it does not directly seek to value benefits, but tests the reasonableness of potential levels of benefit, compared with costs. This approach establishes the minimum benefits required to at least cover total costs. Where the break-even target can be exceeded, the option provides a net benefit to the community. Break-even analysis sets a level of benefit required, meaning an assessment can be made on the likelihood of this target being achieved.

It is important to note in this analysis that the break-even target is *not*:

- the expect total benefit of the scheme, *or*
- the target benefit for government to be satisfied that the scheme is a ‘success’.

What the break-even does is set a threshold specifically for the cost benefit analysis to test the reasonableness of the costs imposed against potential benefits.

In the case of a NCC, the key potential benefits are efficiency gains, which are not readily captured through a standard cost-benefit analysis without a large margin of error on estimates. A break-even analysis can present the required efficiency gain needed to meet the costs of implementing a NCC.

Focusing on the non-residential sector, where stakeholders indicate efficiency gains from a NCC can be achieved, only a very small efficiency gain of 0.14 per cent would be required to achieve a net benefit from introducing a NCC.⁵ This level would be significantly lower if the residential sector were included. The Consultation RIS tested with stakeholders this concept of a minimum efficiency gain required for industry. There were no direct comments raised on the reasonableness of the target, or of the use of this measure as an indicator of benefit. Indeed, given that many of the costs of the NCC are fixed, up-front costs, and efficiency gains are likely to be realised over a number of years, the actual break-even point is lower still, indicating that the costs of the proposal are very small compared with the potential gains for the construction sector and governments (in terms of the efficiency of the regulation and administration of the sector).

4.12 Comparison of implementation sub-options

This RIS includes two sub-options for implementing the NCC (see Chapter 3). The key difference between these sub-options is the degree to which the *initial* consolidation process of bringing together the BCA and plumbing codes addresses all potential overlaps, areas for streamlining and inconsistencies. Sub-Option 1 involves a minimal consolidation, while Sub-Option 2 involves a longer implementation period, with a greater degree of consolidation prior to the release of the first version of the NCC.

While Sub-Option 1 is expected, in the first phase, to involve relatively minor consolidation of codes, it is anticipated that the process of annual review of the NCC will address remaining issues over time (similar to the process used to develop the BCA itself, where the first code was an amalgam of all State and Territory building Acts and regulations, but over time it was streamlined, with overlaps, duplications and inconsistencies reduced).

On the costs side, the key difference between the sub-options would be the costs associated with the development of the code itself. Sub-Option 2 would be more costly in the implementation phase, though these costs may be incurred under Sub-Option 1 where a staged consolidation is conducted through the annual review process (where each annual review addresses aspects of the consolidation between building and plumbing codes).

On the benefits side, it could be argued that Sub-Option 2 will be more effective in addressing the key problems identified in this RIS, particularly those that relate to inconsistencies between codes. That said, a NCC implemented under Sub-Option 1, with annual updates to address inconsistencies over time will also achieve these benefits, albeit at a slower pace.

In comments on the Consultation RIS, government comments support Sub-Option 1, noting that is a lower cost option, and would lead to a more manageable first version of the NCC which will be easier for practitioners to use, and potential cheaper also if the volume could be sold separately. Under this option, the benefits of bringing together governance, review processes and administration of the code itself will still be realised, though the outward appearance of the will remain as separate volumes.

⁵ Based on a cost of \$39.6 million for a NCC and a total value of non-residential construction of \$27.9 billion – ABS (2008b) estimates.

On balance, the impact analysis found little difference between these two sub-options. The decision on implementation therefore can be made on the basis of a judgement of the most practicable way forward, which at this stage appears to be Sub-Option 1, with the proviso that further issues of consistency between codes will be addressed in the annual reviews of a NCC.

Chapter 5

Compliance with National Competition Policy Principles

The *Competition Policy Agreements* establishes requirements for all new legislation adopted by jurisdictions that are party to the agreements. The guiding principle of the *Competition Policy Agreements* is set out in Clause 5(1). This states that:

legislation (including Acts, enactments, Ordinances or regulations) should not restrict competition unless it can be demonstrated that:

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and
- (b) the objectives of the legislation can only be achieved by restricting competition.

Clause 5(5) provides a specific obligation on parties to the agreement regarding newly proposed legislation:

Each Party will require proposals for new legislation that restricts competition to be accompanied by evidence that the legislation is consistent with the principle set out in subclause (1).

Consequently, Regulatory Impact Statements must demonstrate that the proposed regulatory instrument is consistent with these National Competition Policy obligations.

An analysis of the proposed NCC suggests that the establishment of the NCC will not restrict competition among suppliers (i.e. builders, plumbers, building surveyors, and designers/architects). This is evident in three key respects.

First, the NCC is unlikely to affect the number and range of suppliers. The NCC does not grant exclusive rights, establish a license or affect public procurement procedures. The national code will impose transition costs on suppliers (see Section 4.2 above); but these are not significant and should apply equally to all suppliers – at least within jurisdictions. The NCC, above anything else, should improve labour mobility within the construction industry by helping to harmonise plumbing and building codes (and possibly even administrative arrangements).

Second, the NCC is unlikely to change the ability of suppliers to compete. It will not affect pricing or marketing within the industry and, as discussed above, its associated costs will apply to all suppliers. The NCC may affect regulatory settings in certain jurisdictions – particularly those that have not already adopted the PCA. It is unlikely, however, that the NCC will significantly alter technical practice – given that the BCA and AS 3500 are likely to form the basis of the NCC’s technical requirements.

Third, the NCC is unlikely to alter suppliers’ incentives to compete vigorously. It will not: (1) create a self-regulatory or co-regulatory regime; (2) impact on customer mobility; (3) require the publishing of pricing information; and (4) exempt any activity from general competition law.

Chapter 6

Conclusion and recommended option

This RIS provides an assessment of the proposal for a National Construction Code, and the costs and benefits of the introduction of a consolidated code based on the BCA and PCA.

The comparison of potential costs and benefits in the previous chapter shows that the NCC only needs to achieve relatively small efficiency gains to achieve a net benefit — indicating that the range of benefits for industry and government from a NCC are likely to be greater than the costs of the new code. Importantly, the NCC has a strong potential to improve the quality of regulation and administration for the construction sector, and to improve the capacity of industry and government to respond to future policy challenges.

The full extent of benefits achieved from the NCC proposal will depend on the extent to which it is a driver for broader reform of regulation of building and plumbing, particularly in relation to achieving greater consistency in administrative frameworks and reducing variations in performance requirements across all levels of government. This will ultimately depend on the future actions of governments, which is not within the scope of this RIS to predict.

Implementation sub-options

This RIS assesses two sub-options for implementing the NCC (see Chapter 3). The key difference between these sub-options is the degree to which the *initial* consolidation process of bringing together the BCA and plumbing codes addresses all potential overlaps, areas for streamlining and inconsistencies. Sub-Option 1 involves a minimal consolidation, while Sub-Option 2 involves a longer implementation period, with a greater degree of consolidation prior to the release of the first version of the NCC.

While Sub-Option 1 is expected, in the first phase, to involve relatively minor consolidation of codes, it is anticipated that the process of annual review of the NCC will address remaining issues over time (similar to the process used to develop the BCA itself, where the first code was an amalgam of all State and Territory building Acts and regulations, but over time it was streamlined, with overlaps, duplications and inconsistencies reduced).

These options are assessed as implementation options as each has the same end-point in terms of bring together administration and governance structures for building and plumbing codes, consolidating processes for reviewing codes, and improving consistency across State and Territories for plumbing regulations (as at the moment not all jurisdictions refer to the PCA). What sub-option 1 would *not* do is address in the first stage all the potential overlaps between building and plumbing technical standards. This process would be imbedded in annual reviews of the code, which are currently conducted for the BCA by the ABCB (with the same approach to be undertaken for a NCC).

Key impacts on the cost and benefits of a NCC are:

- On the costs side, the key difference between the sub-options would be the costs associated with the development of the code itself. Sub-Option 2 would be more costly in the implementation phase, though these costs may be incurred under Sub-Option 1 where a staged consolidation is conducted through the annual review process (where each annual review addresses aspects of the consolidation between building and plumbing codes).
- On the benefits side, it could be argued that Sub-Option 2 will be more effective in addressing the key problems identified in this RIS, particularly those that relate to inconsistencies between codes. That said, a NCC implemented under Sub-Option 1, with annual updates to address inconsistencies over time will also achieve these benefits, albeit at a slower pace.

In comments on the Consultation RIS, government administrators support Sub-Option 1, noting that it is a lower cost option, and would lead to a more manageable first version of the NCC which will be easier for practitioners to use, and also potential cheaper if the volume could be sold separately. Under this option, the benefits of bringing together governance, review processes and administration of the code itself will still be realised, though the outward appearance of the code will remain as separate volumes (similar to the current BCA where the housing volume is separate from other volumes).

On balance, the impact analysis found little difference between these two implementation sub-options. The decision on implementation therefore can be made on the basis of a judgement of the most practicable way forward, which at this stage appears to be Sub-Option 1, on the basis that there is a commitment by governments to continue with the revision and consolidation of the NCC during annual review tasks. Given the progress made by the ABCB through such a process with the BCA, and the familiarity of this process with industry, this option is the lowest cost option to achieve the potential benefits of a NCC.

Chapter 7

Consultation

Consultation for this RIS has been conducted in two stages:

- *Stage 1:* interviews with stakeholders to test their views on the concept of a NCC, and their expectations of the costs and benefits of an NCC, accompanied by an information request on costs and benefits. Appendix B lists the people and organisations with which we consulted, as well as the submissions we have received to date. Appendix D comprises the information requests that we sent to stakeholders as part of our consultations.
- *Stage 2:* Following approval from COAG, the Consultation RIS was released publicly, with stakeholders involved in Stage 1 invited to provide written comments on the Consultation RIS, by 23 June 2009.

In addition to these stages, which were open to all stakeholders, government stakeholders also had the opportunity to comment on draft versions of the Consultation RIS, prior to its sign-off by COAG.

This RIS reflects stakeholder views both in relation to the stated problems with the current arrangements, and the expected cost and benefits of a NCC. Comments on the Consultation RIS were accepted from stakeholders in writing, with 11 comments being sent to the Allen Consulting Group with comments on the Consultation RIS by 2 July 2009 (a list of submissions is provided in Appendix B).

This RIS was revised on the basis of the comments received on the written submissions. The key areas where stakeholders sought revisions were:

- Estimation of time costs for industry — several stakeholders requested that the wage used to calculate the time costs not be the average hourly wages, but instead be an occupational specific estimate of wages (on the basis that the occupations in question had higher average wages than the economy-wide average). This change is reflected in this Decision RIS.
- Addition of engineers to professions impacted by a NCC — one stakeholder noted that engineers should be included in the list of occupations that would need to update their knowledge should a NCC be introduced. Estimates for engineers have been included in this Decision RIS.
- Government costs — these estimates have been revised on the basis of new data provided by government agencies in their comments on the Consultation RIS. In this RIS the discussion on government costs has been expanded to reflect the costs to government at different stages of implementation.
- Decisions on new governance and costing models to be included — government stakeholders requested that the RIS reflect decisions made on the governance and costing model for the next IGA. These changes have been made to the RIS, reflecting a status quo position for both governance and the funding model.

Chapter 8

Implementation and review

8.13 Implementation

The NCC Implementation Plan outlines four stages for implementing the NCC.

Stage 1: Development of the NCC

This stage would involve:

- agreement from governments on the structure of the NCC and the approach to consolidating building and plumbing codes, through a roundtable of Commonwealth, State and Territory government representatives
- an initial consolidation of technical standards, to be conducted by a small group of technical experts
- consultation on the consolidated code with State and Territory government representatives, followed by full public consultation
- endorsement of the NCC by relevant Ministers (the Building Ministers Forum [BMF] and Ministers responsible for plumbing, where not on the BMF)
- publication of the new NCC.

As Figure 8.1 illustrates, the proposed timing of this stage is dependent on which implementation sub-option the Commonwealth, State and Territory governments choose to pursue.

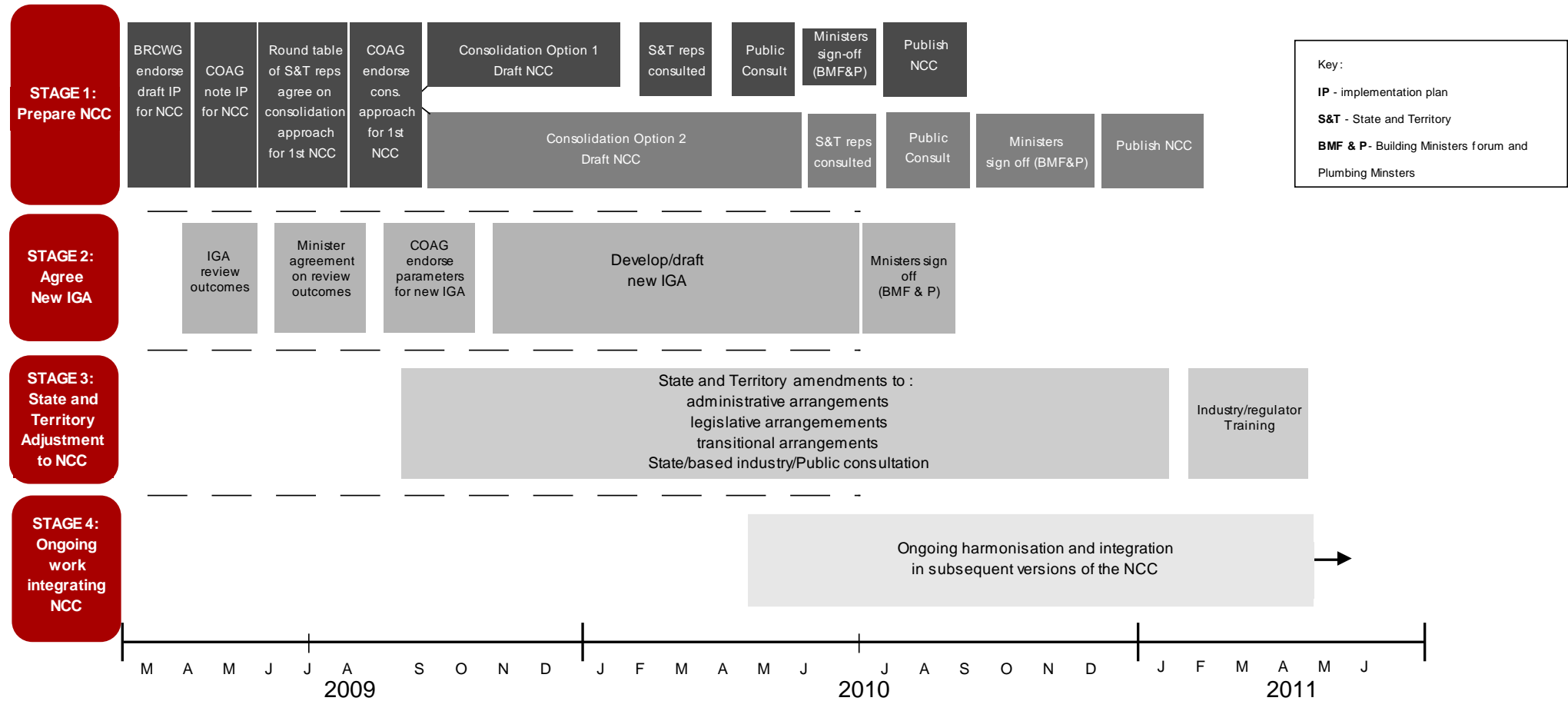
Stage 2: Agreeing a new Intergovernmental Agreement for the NCC

This stage would involve:

- government consideration of recommendations from current IGA review (by March 2009)
- relevant Ministers agree implementation and broad parameters for new IGA (by May 2009)
- development and agreement of NCC IGA and NCC implementation, including Ministerial sign-off (by June 2010).

Figure 8.3

NCC IMPLEMENTATION STAGES AND SUB-OPTIONS



Stage 3: State and Territory implementation of the NCC

Once the NCC and NCC IGA are agreed, they will need to be implemented by State and Territory Governments through their administration and legislative arrangements. The mechanics of this stage will vary across the jurisdictions, but should include the following elements:

- review and amendment of legislation (Acts and regulations) to reference the NCC (mid-2010 to early-2011)
- review and possibly modify administrative arrangements to reflect the NCC and NCC IGA and other reform objectives (in conjunction with legislative review)
- review and implement communication/training mechanisms and processes (ongoing).

Stage 4: Ongoing integration and harmonisation

Further refinement of the NCC will be required in subsequent years to streamline the document, as was the case in the development of the BCA. This could be conducted through a periodic review process, as is currently the case with the BCA. How this process should work, including the frequency of review of the NCC, will be considered in the IGA review report.

Aside from refinement of the NCC itself, integration of the code into State and Territory legislation, with minimal variation, is likely to be an on-going process. As was the case with the adoption of the BCA, there will need to be a process of reviewing variations to the NCC and setting timeframes to address them (most likely in relation to plumbing). Commitments to variation reduction will also be an issue covered in the IGA review report.

8.14 Review

Assuming that the NCC will be administered under a similar regulatory arrangement to the current Intergovernmental Agreement for the BCA, it will be subject to:

- annual reviews – primarily related to the quality and scope of technical standards
- five-yearly reviews – primarily related to governance arrangements, as well as questions about the appropriateness and effectiveness of the code.

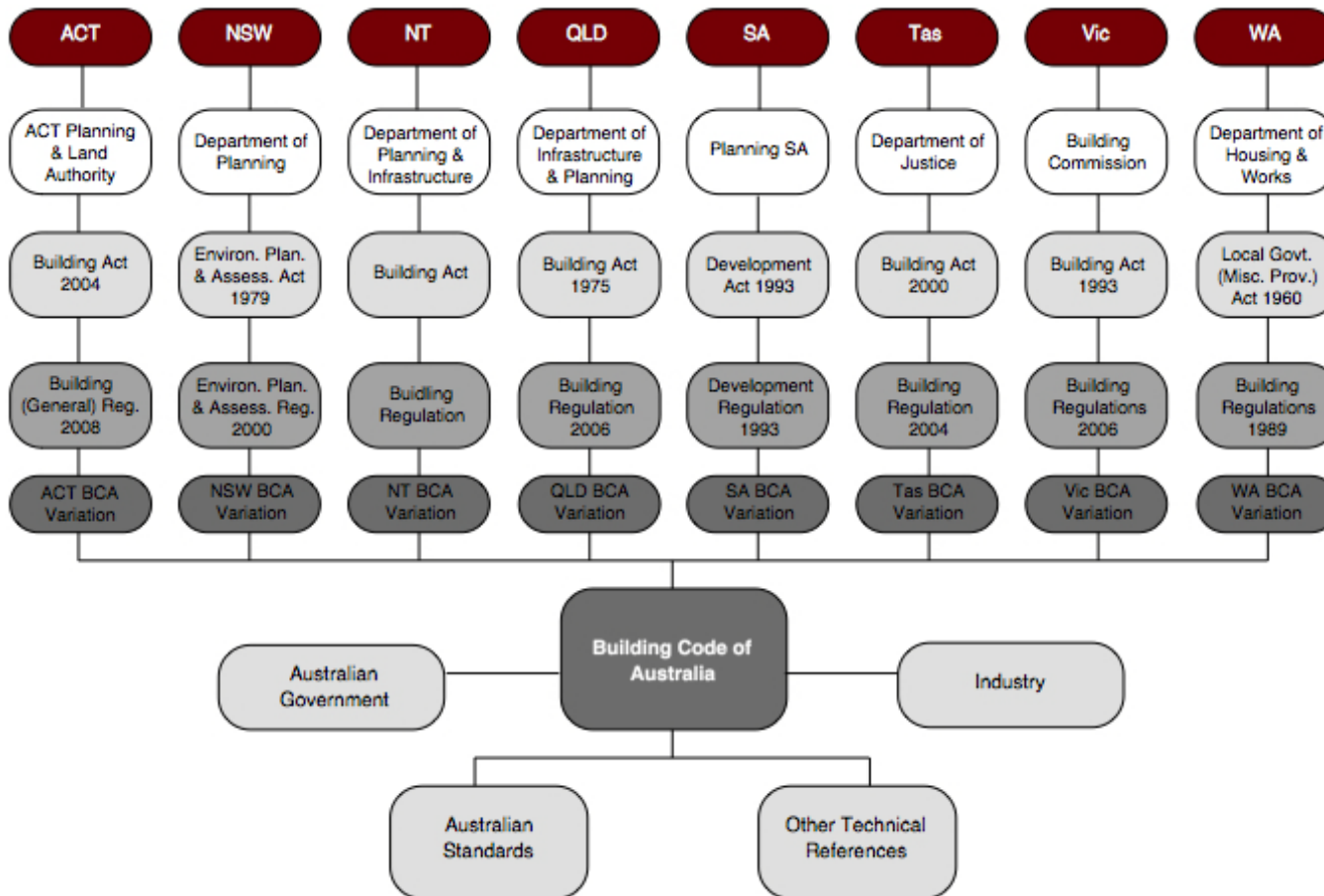
Appendix A

Regulatory frameworks

The following tables provide a mapping of current administrative arrangements or building and plumbing in Australia.

Figure A.1

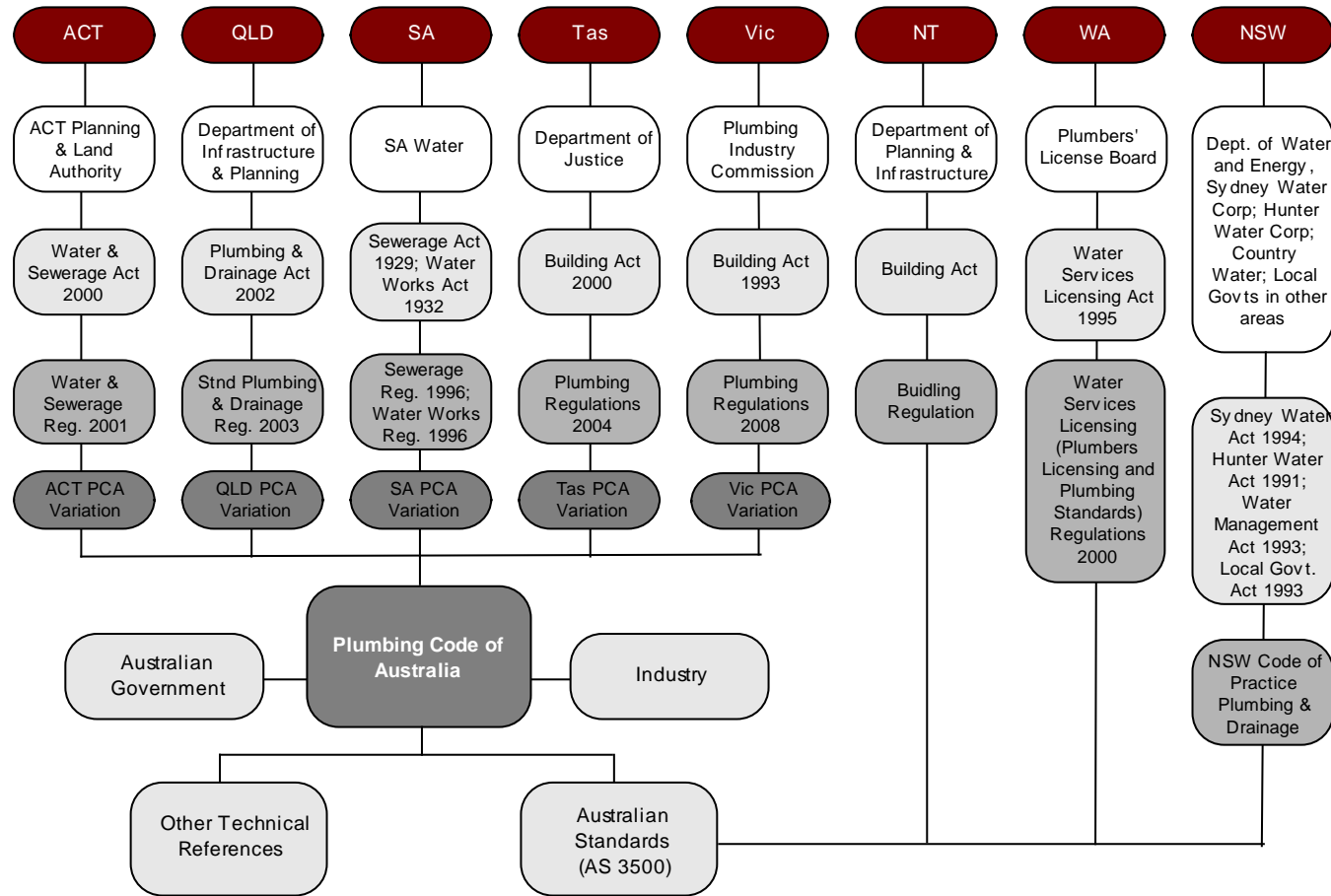
AUSTRALIA'S BUILDING REGULATORY FRAMEWORK



Source: Allen Consulting Group

Figure A.2

AUSTRALIA'S PLUMBING REGULATORY FRAMEWORK



Source: Allen Consulting Group

Appendix B

Stakeholder Input

B.1 List of Interviewees

Table B.1

CONSULTATIONS CONDUCTED

| | Name | Position | Organisation |
|-----|------------------|---|--|
| | Brian Ashe | Manager | Australian Building Codes Board |
| | Darren Atkinson | Project Manager | Australian Building Codes Board |
| | Trent Bourne | Manager | Australian Building Codes Board |
| | Kim Burton | | Australian Building Codes Board |
| | Ivan Donaldson | General Manager | Australian Building Codes Board |
| | Jerry Howard | | Master Builders Association ACT |
| | Steve Hudson | | Australian Building Codes Board |
| | Matthew McDonald | Project Manager | Australian Building Codes Board |
| | John Miller | Executive Director | Master Builders Association ACT |
| ACT | Kevin Newhouse | | Australian Building Codes Board |
| | Yvonne Noordhuis | | Australian Building Codes Board |
| | Craig Simmons | Manager, Construction Policy and Regulation | ACT Planning and Land Authority |
| | Kristin Tomkins | Executive Director, Building Policy | Housing Industry Association |
| | Ian Carruthers | Adaptation and Land Manager | Commonwealth Department of Climate Change |
| | Michael Green | | Department of Innovation, Industry, Science and Research |
| | Martin Dwyer | | Engineers Australia |
| | Ross Carter | Renewable Energy and Efficiency | Commonwealth Department of Water, Heritage and the Arts |
| | Mark Davis | Renewable Energy and Efficiency | Commonwealth Department of Water, Heritage and the Arts |

| | | | |
|-----|--------------------|--|---|
| | Radmilia Ristic | Office of Best Practice Regulation | Commonwealth Department of Finance and Deregulation |
| | Diane Deane | | Commonwealth Department of Water, Heritage and the Arts |
| NSW | Steve Durnford | | Department of Planning, New South Wales |
| | Graham Huxley | Chairman | Australian Building Codes Board |
| | Chris Johnson | Executive Director | Cities and Centres, Department of Planning, New South Wales |
| | Peter Meredith | Director, Housing | Master Builders Association NSW |
| | Paul Naylor | General Manager | Master Plumbers Association of NSW |
| | Kevin Skauge | Chief Executive Officer | Australian Institute of Building Surveyors |
| | Paul Waterhouse | | Property Council of Australia |
| | Troy Williams | Chief Executive Officer | Australian Institute of Building |
| | Peter Barda | | Australian Construction Industry Forum |
| | Jim Barrett | | Australian Constructors Association |
| | John McCarthy | Group Property Executive | AEH Property Group |
| | Caroline Pidcock | Director | Pidcock Architecture and Sustainability |
| | Jeff House | | Green Building Council of Australia |
| | Shaun McBride | | Local Government Association of NSW and Shires Association of NSW |
| | David Sharp | | Building Products Innovation Council |
| QLD | Darren Barlow | Director, Housing | Master Builders Queensland |
| | Glen Brumby | Executive Director, Building Codes Queensland | Department of Infrastructure and Planning, Queensland |
| | Lance Glare | Manager, Building Legislation and Standards Branch | Department of Infrastructure and Planning, Queensland |
| | Michael McGuinness | Manager, Plumbing Legislation and Standards Branch | Department of Infrastructure and Planning, Queensland |
| | Gavin McCullagh | | Local Government Association of Queensland |
| | Adrian Hart | | Master Plumbers Association of Queensland |
| SA | Andrew Clarke | Executive Officer | Plumbing Industry |

| | | | |
|------------|--------------------|--|--|
| | Jeffrey Clark | Development Services Officer | Association SA SA Water |
| | Peter Day | | SA Water |
| | Don Freeman | Manager, Building Policy | Planning SA |
| | Victoria Gailit | Senior Policy Officer | Local Government Association of South Australia |
| Tas | Christopher Atkins | Executive Director | Master Builders Association Tasmania |
| | Adrian Cowie | Executive Director | Master Plumbers Tasmania |
| | Liz Gillam | Senior Policy Officer | Local Government Association of Tasmania |
| | Alan Humphreys | Principal Plumbing Advisory Officer, Building Standards and Regulation | Department of Justice Tasmania, Workplace Standards Tasmania |
| | Graeme Hunt | Manager, Building Standards and Regulation | Department of Justice Tasmania, Workplace Standards Tasmania |
| | Michael Kerschbaum | Manager, Technical Services | Master Builders Association Tasmania |
| | Barry Neilsen | Director | Pitt & Sherry Tasmania |
| | Robert Pearce | Director, Policy, Planning and Services | Department of Justice Tasmania, Workplace Standards Tasmania |
| | Tony Rowel | Building Advisory Officer, Building Standards and Regulation | Department of Justice Tasmania, Workplace Standards Tasmania |
| Vic | Andrew Andreou | Acting Executive Manager Community Infrastructure | Country Fire Authority |
| | Tony Arnel | Building/Plumbing Commissioner | Building Commission and Plumbing Industry Commission, Victoria |
| | Peter Beckford | Acting Director, Regulation, Development and Compliance, Building Commission | Building Commission and Plumbing Industry Commission, Victoria |
| | Naomi Brown | Chief Executive Officer | Australasian Fire and Emergency Service Authorities Council |
| | Adam Dalrymple | Commander, Manager Structural Fire Safety | Metropolitan Fire and Emergency Services Board |
| | Vin Ebejer | General Manger | Master Plumbers and Mechanical Services Association of Australia |
| | Jarrold Edwards | Executive Manager, Community Safety Technical Department | Metropolitan Fire and Emergency Services Board |
| | Ross Hodge | Previous Executive Director | Fire Protection Association Australia |
| | Peter Johnson | National President | Fire Protection Association Australia |

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|----|------------------|---|---|
| | Shayne LaCombre | General Manager, Plumbing Industry Commission | Building Commission and Plumbing Industry Commission, Victoria |
| | Rob Llewellyn | Managing Director | International Fire Protection |
| | Geoff Woolcock | Director | Master Builders Association Victoria |
| WA | Romina De Santis | Technical and Training Manager | Master Builders Association of Western Australia |
| | Peter Gow | Executive Director, Building Industry Development | Department of Housing and Works, Western Australia |
| | Michael McLean | Director | Master Builders Association of Western Australia |
| | Vanessa Morris | | Department of Housing and Works, Western Australia |
| | Phil Payne | Manager | Plumbers Licensing Board, Western Australia |
| | Murray Thomas | Chief Executive Officer | Master Plumbers and Gasfitters Association of Western Australia |
| | Donielle Watt | Policy Officer | Department of Housing and Works, Western Australia |
| | Nabil Yazdani | Manager, Building Codes and Regulation | Department of Housing and Works, Western Australia |
| | Beryl Foster | | West Australian Local Government Association |
| NT | Graham Kemp | General Manager | Master Builders and Plumbers Association |
| | Rod Applegate | Executive Director, Building and Planning | Department of Infrastructure, Planning and Environment |

B.2 List of submissions to the IGA review

Table B.2

NCC RIS AND IGA ABCB SUBMISSIONS

| Submission no. | Title | Author |
|----------------|--|--|
| 1 | 'Building Codes Queensland Submission' (October 2008) | Building Codes Queensland Division, Queensland Department of Infrastructure and Planning |
| 2 | 'AIBS comments on the draft RIS' (October 2008) | Australian Institute of Building Surveyors (AIBS) |
| 3 | 'NSW Officer level inputs for preparation of the National Construction Code draft RIS' (October 2008) | New South Wales Department of Premier and Cabinet |
| 4 | 'Review of the Inter Governmental Agreement for the Australian Building Codes Board: ABCB Chairman's Submission' (October 2008) | Chairman of ABCB |
| 5 | 'Inter-Governmental Agreement (IGA) for the Australian Building Codes Board (ABCB) and National Construction Code (NCC)' (October 2008) | Master Builders Queensland |
| 6 | 'Initial submission: Review of Intergovernmental Agreement for the Australian Building Codes Board' (November 2008) | Insurance Council of Australia (ICA) |
| 7 | 'Submission on the Discussion Paper for the Review of the Intergovernmental Agreement for the Australian Building Codes Board' (November 2008) | Master Builders Association of New South Wales |
| 8 | 'Final submission: Review of Intergovernmental Agreement for the Australian Building Codes Board' (November 2008) | Insurance Council of Australia (ICA) |
| 9 | 'Review of Intergovernmental Agreement for the Australian Building Codes Board' (November 2008) | Building Products Innovation Council (BPIC) |
| 10 | 'RE: Allen Consulting Review – ABCB Intergovernmental agreement review' (November 2008) | Australian Institute of Building (AIB) |
| 11 | 'Submission by the Housing Industry Association' (December 2008) | Housing Industry Association (HIA) |
| 12 | Submission: Review of the Intergovernmental Agreement for Australian Building Codes Board and National Construction Code Implementation' (December 2008) | Master Plumbers and Mechanical Contractors Association of NSW |
| 13 | Submission: Review of the Intergovernmental Agreement for Australian Building Codes Board and National Construction Code Implementation' (December 2008) | Master Plumbers and Gasfitters Association of Western Australia |
| 14 | 'Inter-Governmental Agreement (IGA) for the Australian Building Codes Board | Australasian Fire and Emergency Service |

| | | |
|----|---|---|
| | (ABCB) and National Construction Code (NIC)' (December 2008) | Authorities Council (AFAC) |
| 15 | 'Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation' (December 2008) | Western Australian Department of Housing and Works |
| 16 | 'National Construction Code – Comments & Recommendations' (December 2008) | Western Australian Department of Housing and Works |
| 17 | 'NSW Officer Level Comments on the Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code Implementation' (December 2008) | New South Wales Department of Premier and Cabinet |
| 18 | 'Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation' (December 2008) | Victoria Plumbing Industry Commission |
| 19 | 'Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation' (December 2008) | Victoria Building Commission |
| 20 | 'FPA Australia – Response to the review of the Intergovernmental Agreement (IGA) of the Australian Building Codes Board (ABCB)' (December 2008) | Fire Protection Association Australia (FPA Australia) |
| 21 | 'Submission' (December 2008) | Royal Institution of Chartered Surveyors Oceania (RICS Oceania) |
| 22 | 'Re: Review of the Intergovernmental Agreement of the Australian Building Codes Board' (December 2008) | United Firefighters Union (UFU), Victorian Branch |
| 23 | 'Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation' (January 2009) | Property Council of Australia |

B.3 Submissions on Consultation RIS

Table 8.7

ORGANISATIONS THAT PROVIDED WRITTEN COMMENTS ON THE CONSULTATION RIS

| Organisation/Individual | Date received |
|---|---------------|
| Department of Commerce WA | 18 May 2009 |
| Australian Institute of Architects WA Chapter | 18 June 2009 |
| SA Water | 22 June 2009 |
| Australian Institute of Building Surveyors | 22 June 2009 |
| Australian Institute of Architects | 23 June 2009 |
| Master Builders Queensland | 23 June 2009 |
| Tasmania Department of Justice | 24 June 2009 |
| Master Builders Australia | 24 June 2009 |
| Victorian Plumbing Industry Advisory Council | 25 June 2009 |
| Standards Australia | 30 June 2009 |
| Building Codes Queensland | 2 July 2009 |

Appendix C

Reported required government actions to implement a NCC

Table C.3 provides a synopsis of required actions and commitments required of State and Territory governments to implement a NCC. Sources of information for this summary include:

- consultations with building and plumbing regulators; and
- responses to the information request from State and Territory governments.

Table C.1

REPORTED ACTIONS AND COMMITMENTS REQUIRED BY STATE AND TERRITORY GOVERNMENTS — FROM CONSULTATIONS

| Jurisdiction | Reported areas of administrative change |
|--------------|---|
| ACT | <ul style="list-style-type: none"> • ACT involvement in developing the NCC. • Minor legislative changes to reference the NCC. • Communication and training for government officials and industry. |
| NSW | <ul style="list-style-type: none"> • The costs for NSW are dependent on which model the State adopts to implement the NCC (see Table C.4). • In all scenarios, NSW would incur costs in helping to develop the NCC. • Each Model would impose costs relating to legislative review and consolidation, policy development and the transfer of Ministerial responsibilities and staff. These costs would be greater for Models A and C. • Administrative changes (and associated costs) would involve: <ul style="list-style-type: none"> – establishing a new consolidated agency (not applicable to Model B) – potential additional NSW monetary contributions to an enhanced ABCB – possible enhancement/expansion of current committees, boards, consultation forums relevant to building and plumbing matters/controls. • Each Model would impose costs relating to communication and training for government officials and industry. This would also involve costs to implement and support a performance-based plumbing code. |
| NT | <ul style="list-style-type: none"> • Limited information provided by Territory government. • The Territory's single <i>Building Act</i> and consolidated building/plumbing regulatory body will likely mitigate costs. The move to a performance-based model of plumbing regulation may increase communication and training costs. |
| QLD | <ul style="list-style-type: none"> • BCQ involvement in developing the NCC (similar to that incurred by all jurisdictions) • Building and plumbing are already combined within BCQ. Legislative changes would only be required for the gas aspect of plumbing, and to adopt the NCC in regulations • Communication and training for the government officials and industry – an estimated one-off cost of \$250 000. • Additional QLD monetary contributions to an enhanced ABCB. |
| SA | <ul style="list-style-type: none"> • Costs will accrue as a result of administrative changes necessary to implement a NCC. The degree of these costs will depend on whether the NCC is in one volume, or two separate volumes for building and plumbing. • Due to the fact that plumbing and building are administered separately in SA, one NCC document would create difficulties and would force SA into merging their building and plumbing regulations, which would involve a costly and lengthy (up to 2 years) cabinet approval process. If NCC was in two separate volumes, then only minimal changes would be required to the SA regulations, which would be a straightforward, less costly and relatively quick (1 year max) process. |
| Tas | <ul style="list-style-type: none"> • Will be costs to government, councils and certifiers as changes are implemented, e.g. in relation to training and administrative changes. • Maybe costs associated with training builders and plumbers re the NCC. |
| Vic | <ul style="list-style-type: none"> • Industry training in new NCC. • Purchase of new copies of the NCC. |
| WA | <ul style="list-style-type: none"> • WA government involvement in developing the NCC. • WA is already in the process of reforming its building legislation. This involves establishing a new, consolidated agency for plumbing and building that will be the responsibility of a single Minister. Additional administrative costs for implementing the NCC are thus likely to be minor. • Minor legislative changes to reference the NCC. • Communication and training for government officials and industry. WA indicated that these costs might be significant, given that the State is unfamiliar with a performance-based regulatory approach to plumbing. |

- Additional WA monetary contributions to an enhanced ABCB.

Source: ACG summary of input from State and Territory agencies in consultations and written submissions.

Table C.4 is linked with Table C.3, in that it provides a breakdown of the possible models that New South Wales might adopt in order to implement a NCC. The New South Wales Government provided us with these models in their submission to the Consultation RIS.

Table C.2

POSSIBLE MODELS FOR IMPLEMENTING THE NCC – NEW SOUTH WALES

Model A – Partial integration

Model A would involve a partial integration of building and plumbing controls and would require consolidated legislative arrangements for building and plumbing controls.

Generally, it would involve:

- one NSW Minister and one NSW Government agency responsible for: policy development and implementation, and Code/Standard development and implementation
- separate NSW Government agency/agencies responsible for licensing/ registration/ accreditation of practitioners (and associated functions, eg, complaints investigation, auditing, education and training).

Model B – Separate arrangements

Model B would involve separate legislative arrangements and administrative controls for the building and plumbing industries.

Generally, it would involve separate NSW Ministers and NSW Government agencies responsible for:

- policy development and implementation
- code/Standard development and implementation
- licensing/ registration/ accreditation of practitioners (and associated functions, eg, complaints investigation, auditing, education and training).

Model C – Full integration

Model C would involve full integration of building and plumbing controls and would involve consolidated legislative arrangements.

Generally, it would involve one NSW Minister and one agency responsible for:

- policy development and implementation
- code/Standard development and implementation
- licensing/ registration/ accreditation of practitioners (and associated functions, e.g., complaints investigation, auditing, education and training).

The above models assume that the plumbing component of the NCC will be the Plumbing Code of Australia (PCA), or some similar performance – based approach. The PCA uses a performance-based approach to the regulation of plumbing. This is a new approach for many NSW plumbing practitioners and may require the implementation of government run support mechanisms.

A transitional period is likely to be required for stakeholders, which would vary depending on the model adopted. This is more likely to be necessary for the plumbing industry (including regulatory functions) than the building industry.

Source: New South Wales Department of Premier and Cabinet (officer level comments) (2008)

Appendix D

Information request

The following is an example of the discussion paper that we sent to stakeholders as part of our consultative process for both the NCC RIS and review of the IGA ABCB.

The Allen Consulting Group has been commissioned to conduct a review of the Intergovernmental Agreement (IGA) of the Australian Building Codes Board (ABCB).

This paper serves three important purposes:

it provides information on the context for this review

- it includes a set of questions to guide interviews and submissions, and
- it includes a request for data to inform cost-benefit analysis.

D.1 Review background and context

The building regulation environment is changing rapidly, driven by factors such as climate change and sustainability policies, the ageing population, trends towards national regulatory reform and reducing regulatory burden on business.

Most immediate is the consolidation of on-site construction codes within a National Construction Code (NCC). In its meeting of 3 July 2008 COAG agreed to the implementation of a National Construction Code, the first stage of which would be to consolidate codes for building and plumbing. The proposed approach is for the NCC to be a consolidation of the Building Code of Australia (BCA) technical plumbing regulations, managed under the current model for management of the BCA (the ABCB model).

The NCC has implications both for the composition of the new code and the management of the regulatory framework. The current framework for managing the regulation of buildings in Australia is the Intergovernmental Agreement for the ABCB, which sets out:

- the respective roles for governments in building regulation
- how the BCA will be adopted by State and Territory governments
- governance, funding and administrative arrangements for the ABCB as the body which maintains the BCA and progresses the IGA objectives.

Implementing the NCC will require changes to the current IGA, at a minimum to reflect the involvement of the plumbing sector. The current review of the IGA provides a valuable opportunity for a more comprehensive assessment of the current model — is the current IGA the best model to manage the NCC and future challenges facing the building and plumbing sectors? Answering this question requires an assessment of the effectiveness of the current IGA — whether is it achieving its objectives, and if not, what changes are required to make the IGA more effective.

D.2 Review components and approach

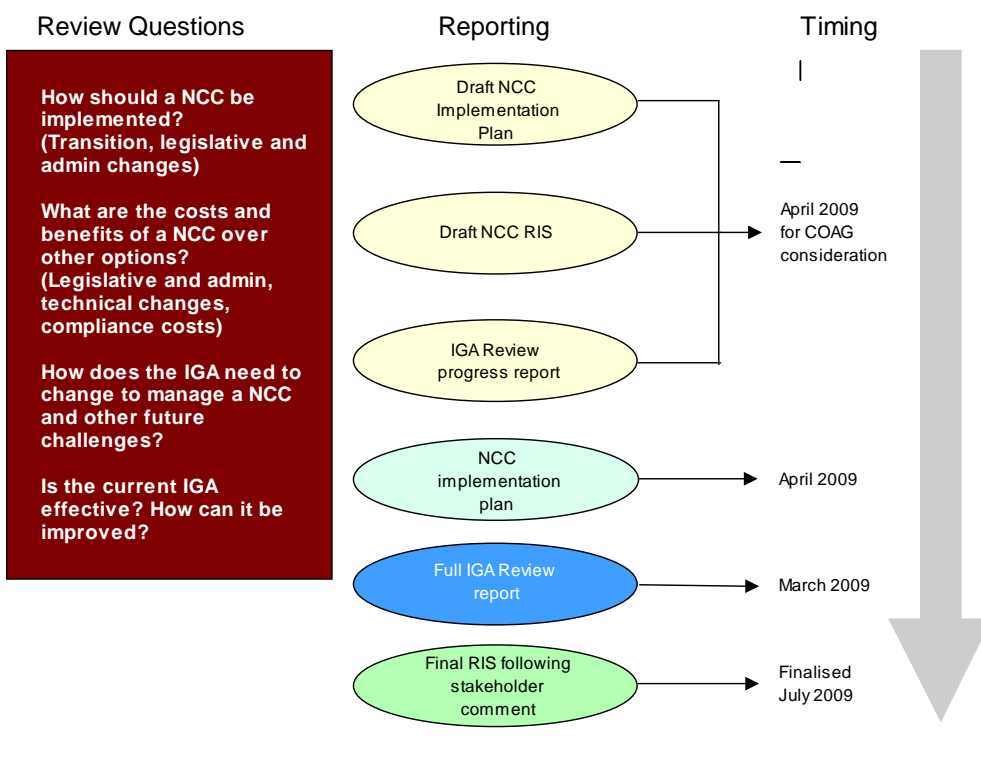
This review has two key components

1. An implementation strategy and Regulation Impact Statement (RIS) for the NCC, which will be a component of the future regulatory environment within which the IGA will need to operate
2. A comprehensive review of the IGA to assess whether the current approach is the most effective to meet future challenges, including supporting the new NCC when implemented.

Figure D.3 illustrates the linkages between these components, reporting and timing for this review. The review questions set out the logic of the issues to be addressed. Essentially, the NCC implementation plan and RIS are addressing the ‘mechanics’ of implementing the NCC, whereas the IGA review component is taking a step back to test whether the current management model for building regulation is working effectively, and whether it is the best model to manage the proposed NCC.

Figure D.1

FRAMEWORK FOR THIS REVIEW



It is important to note that this review is focused on the IGA (effectively the mechanisms to administer and manage the implementation of the BCA) rather than technical standards within the BCA itself. Technical standards will be considered as part of the NCC analysis, but only to the extent to that developing the NCC changes technical standards (where changes are necessary to be consistent with the new Code).

D.3 Participating in this review

It is important that stakeholders participate in this review. We are seeking stakeholder input in the following ways.

Interviews

Stakeholders will have been contacted requesting an interview with the review team. These interviews will seek to cover those issues set out in the attached questions. Interviews are being conducted early in the review timeframe, with stakeholders able to provide comments and data to the review following interviews with the review team.

Interviews with building sector stakeholders will cover both the implementation of the NCC and the effectiveness of the current IGA. Interviews with plumbing sector stakeholders will focus primarily on the NCC implementation issues, though will also cover how a new IGA should be developed to respond to the needs of the plumbing sector.

Request for data on NCC impacts

Included in this paper is a request for data on NCC impacts. These questions are seeking information to support the Draft RIS that will go to COAG in November. The data request tests with stakeholders what the likely costs and benefits would be of implementing the NCC.

To meet COAG deadlines, data for the draft RIS must be provided by **COB Tuesday 28 October 2008**. Responses should be sent by email to **IGAreview@allenconsult.com.au**.

Written submissions

We welcome written submissions to this review from all stakeholders. Providing a submission presents a valuable opportunity for stakeholder to participate in the review. Submissions can be structured around the questions in this paper, or focused on a sub-set of issues that your organisation wishes to bring to the attention of the review team.

Submissions can be made to the review until **COB Wednesday 3 December 2008**. They can be sent:

By email (preferred) to: **IGAreview@allenconsult.com.au**

By fax to: 02 6230 0149

By mail to: att: Sharon Kennard
 The Allen Consulting Group
 GPO Box 418
 Canberra 2601

Issues for stakeholders

D.4 Implementation of a National Construction Code

The proposed NCC model is:

- the BCA and technical plumbing regulations brought together in a consolidated code
- a transition period for States and Territories to adopt the new code in legislation
- national implementation of the new code managed using a model similar to that currently in place for building regulation (with an IGA and a Board).

This review is seeking stakeholder views on the expected impact of the NCC, and on how the NCC should be implemented.

Questions

1. For your State/Territory, what *legislative* changes would be required to manage the implementation of the NCC, as proposed? Would there need to be changes to Ministerial responsibilities?
2. For your State/Territory, what *administrative* changes would be required to manage the implementation of the NCC, as proposed?
3. Would a proposal to consolidate the BCA and the PCA require changes in *technical building standards* in your State or Territory?
4. If technical changes are required, can you provide examples of these?
5. Will the NCC lead to costs or benefits to industry (both within your State/Territory and nationally)? What form would these costs or benefits take?
6. For government, are there benefits in administration of a consolidated code (compared with separate codes)?
7. It is proposed that there would be a transition period for the implementation of the NCC. What is an appropriate length for a transition period?

D.5 Review of the current IGA

The IGA provides a framework for the management of building regulation in Australia. This review has been tasked with reviewing the effectiveness of the current IGA, and assessing the best model for a revised IGA supporting a new NCC.

Achieving a nationally consistent approach to building regulation

The current IGA sets out the commitment of Commonwealth, State and Territory governments to:

- adopting the BCA by reference on a national basis through relevant State and Territory legislation

- restricting any new variations to particular geographical, geological or climatic factors
- harmonising the approach to the administration of the BCA across Australia
- seeking similar commitments from local governments where they have any administrative responsibility for regulating the building industry.

This review will assess the extent to which these commitments have been met.

Questions

8. Data from the ABCB suggests a recent growth in State and Territory variations to the BCA. What are the reasons behind this trend?

9. Is there a role for State and Territory variations in a new IGA supporting the NCC? Should the current arrangements for variations be continued for the new code?

10. What mechanisms in a new IGA would assist in reducing the number of variations to the NCC, to promote national consistency?

11. Has there been progress towards harmonisation of administration since the introduction of the current IGA in 2006? Should harmonised administration be an objective of the new IGA and Board under the NCC?

12. In your State or Territory, are local governments able to make variations to the BCA in planning laws? If yes, what is the role of the State government in monitoring or limiting these variations?

Governance

Implementing the NCC would require changes to governance arrangements to provide representation of the plumbing sector. At a minimum this would require changes to Board membership. This process does, however, provide an opportunity to assess other aspects of the current governance arrangement.

13. How will current governance arrangements for the BCA need to change to reflect the implementation of the NCC? For example, what would be an appropriate 'Board' structure?

14. Is the current Board structure operating effectively to support the commitments in the IGA and objectives of the ABCB? Other than bringing in plumbing representatives, do you have other suggested changes to Board structure or representation?

15. The current IGA establishes the functions of the ABCB. Are these functions appropriate for the objectives of the ABCB? Would you recommend any changes to these functions?

16. Is the current governance structure effective in managing building regulation issues as they arise? Are current decision making processes responsive to the needs of the building industry?

17. The Building Minister's Forum currently has Ministerial responsibility for the ABCB and the IGA. Should Ministerial arrangements change with the implementation of the NCC?

Funding model

The current arrangements provide the ABCB with around 25 per cent of its funding through direct contributions from the Commonwealth, state and territory governments, with the remaining funding coming from sales of the BCA.

18. Should the ABCB (or equivalent body under the NCC) be relying on BCA sales as their main source of funding?

19. Is it appropriate to charge a fee for access to the BCA? Does this fee have any impact on industry practice?

20. Are there other funding models which you consider would be more appropriate for a new IGA supporting the NCC?

References to Australian Standards

Both the BCA and PCA include references to Australian Standards in their text. Standards Australia manages the development of these Australian Standards, which are available for sale from SAI Global.

21. What are the advantages and disadvantages of the current use of references to Australian Standards in the BCA and PCA?

22. What options are available to address identified disadvantages to the use of Australian Standards references? Is there a role for references to Australian Standards within the NCC?

Ability to respond to future challenges

A key task of this review is to advise government on how well the current IGA will be able to manage future challenges.

23. How responsive is the current model for building regulation to emerging policy areas?

24. Has the model performed well in the recent period in managing emerging issues, such as climate change?

25. If not, how can a revised IGA be structured to be more responsive to change, without impacting on other objectives (such as achieving best practice regulation)?

Costs and Benefits of the NCC — building sector

The following tables set out the areas where we are seeking estimates of costs and benefits of the implementation of the NCC.

D.6 Costs

For this analysis, we are seeking from government and industry stakeholders an indication of:

- the type of costs likely to be incurred

- the scale of costs (for instance a dollar range or minimum or maximum expected cost)
- which stakeholders are likely to incur costs (at the highest level, whether costs will be incurred by industry or government).

We recognise that not all costs will be able to be quantified, but an indicator of the likely types of cost and their distribution is very important in a RIS analysis. The following table provides a template for stakeholders to report likely costs. The following table sets out areas identified by the review as being potential costs of the implementation of the NCC. Please add or subtract from this list as you consider relevant.

Table 8.8

ESTIMATED COSTS OF IMPLEMENTING THE NCC — BUILDING SECTOR

| | Details on type of costs incurred | Incurred by... | Cost estimate |
|--|-----------------------------------|----------------|---------------|
| Costs of legislative change For example: -amendments to legislation -changes to Ministerial arrangements | | | |
| Costs of administrative changes | | | |
| Costs of changes to technical plumbing standards | | | |
| Costs of compliance for industry For example, incremental increases of: - purchase of new code - time taken to familiarise with new code - staff training costs - other | | | |
| Other costs or impacts (e.g. effect on the ability of one company or sector to compete with another) [PLEASE add as appropriate] | | | |

D.7 Benefits

Estimates of benefits are inherently more difficult than costs to estimate. The RIS analysis will need to identify the types of benefits that are likely to be achieved through the NCC, and whether these benefits are sufficient to achieve a net benefit. The following table provides examples of the potential categories of benefit that may apply to the NCC. We are seeking from stakeholders an indication of:

- whether these types of benefit are likely to be achieved through the NCC
- if they are feasible, what parties would benefit
- the scale of potential benefits over the long term (over 20 years).

We understand that benefit estimates are difficult to provide, but at a minimum we are seeking an indication from stakeholders of the probable benefits from the NCC.

Table 8.9

ESTIMATED BENEFITS OF IMPLEMENTING THE NCC — BUILDING SECTOR

| Examples of benefits | Relevance of these benefits? | Accruing to.. | Potential scale of benefits |
|---|------------------------------|---------------|-----------------------------|
| Efficiency gains to governments through consolidation of administration for building and plumbing | | | |
| Reduced costs to firms operating at a national level (through more consistent regulation) | | | |
| Efficiency gains on-site in operating from one code | | | |
| Economies of scale in building products | | | |
| Other benefits (e.g. environmental benefits from improved clarity of water supply regulation) | | | |
| [PLEASE add as appropriate] | | | |

Appendix E

Reference list

Allen Consulting Group (ACG) 2002, *Harmonisation of Building Control Administration: Costs and Benefits of the National Administration Framework*, Draft report for the Australian Building Codes Board, November.

Allen Consulting Group (ACG) 2008, *Business Case for a National Construction Code*, Report to the Australian Government Department of Innovation, Industry, Science and Research, Canberra.

Architect Board of South Australia 2008, *Annual Report Year Ended 31 December 2007*, Wayville, South Australia.

Australian Building Codes Board (ABCB) 2006, *An Agreement between the Governments of the Commonwealth of Australia, the States and the Territories to continue in existence and provide for the operation of the Australian Building Codes Board*, Canberra.

Australian Building Codes Board (ABCB) 2008a, 'ABCB Online Shop', https://www.abcb.gov.au/shop/Results.cfm?PageNum_Results=1&category=0&secondary=0. Accessed on: 20 October 2008.

Australian Building Codes Board (ABCB) 2008b, 'About the Building Code', <http://www.abcb.gov.au/go/thebca/aboutbac>. Accessed on: 6 May 2008.

Australian Bureau of Statistics (ABS) 2008a, *Building Activity June Quarter*, Cat. No. 8752.0, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8752.0Jun%202008?OpenDocument> Accessed on 12 November 2008.

Australian Bureau of Statistics (ABS) 2008b, *Household Use of Information Technology, Australia, 2007-08*, Cat. 8146.0, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/productsbyCatalogue/ACC2D18CC958BC7BCA2568A9001393AE?OpenDocument>. Accessed on: 27 January 2009.

Australian Bureau of Statistics (ABS) 2008c, *Labour Force Statistics Quarter 2008*, Cat. 6291.0.55.001, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6291.0.55.001Sep%202008?OpenDocument> Accessed on 4 October 2008.

Australian Council of the Built Environment Design Professionals Ltd 2008, *Performance Enhancement Roadmap for the Built Environment Design Consulting Industry*, ICIP Report, June, Sydney.

Building Codes Queensland 2008, *Submission to the Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation*, December, Brisbane.

Council of Australian Governments (COAG) 2007, *Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies*, Canberra.

Council of Australian Governments (COAG) 2008, *Communiqué, 3 July 2008*, Sydney.

Di Marzio Research 2008, 'A research report on Building Code of Australia subscribers', for the Australian Building Codes Board, October, South Melbourne.

Financial System Inquiry 1996, *Discussion Paper*, Canberra.

House of Representatives Standing Committee on Environment and Heritage 2007, *Managing the Flow: Regulating Plumbing Product Quality*, September, Parliament of Australia, Canberra.

Master Builders Australia 2004, *Submission to the Productivity Commission Inquiry into Reform of Building Regulation*, May, Canberra.

National Competition Council (NCC) 1998, *National Competition Principle Agreements*, Second Edition, Canberra.

National Plumbing Regulators Forum (NPRF) 2004, *Plumbing Code of Australia*, <http://www.dip.qld.gov.au>.

New South Wales Department of Premier and Cabinet (officer level comments) 2008, Submission of input for the National Construction Code Draft RIS, December, Sydney.

Productivity Commission 2000, *Inquiry Report: Review of Legislation Regulating the Architectural Profession*, AusInfo, Canberra.

Productivity Commission 2004, *Reform of Building Regulation*, Research Report, Canberra.

Productivity Commission 2007, *Performance Benchmarking of Australian Business Regulation*, Research Report, February.

Regulation Taskforce 2006, *Rethinking Regulation: Report of the Taskforce on Reducing Regulatory Burdens on Business*, Report to the Prime Minister and the Treasurer, Canberra, January.

SAI Global 2009, 'PCA 2004: Plumbing Code of Australia', <http://infostore.saiglobal.com/store/Details.aspx?DocN=AS289952190845>. Accessed on: 4 February 2009.

Victorian Plumbing Industry Commission 2008, Submission to the Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation, December, Melbourne.

Western Australian Department of Housing and Works 2008, Submission to the Review of the Intergovernmental Agreement for the Australian Building Codes Board and National Construction Code implementation, December, Perth.