

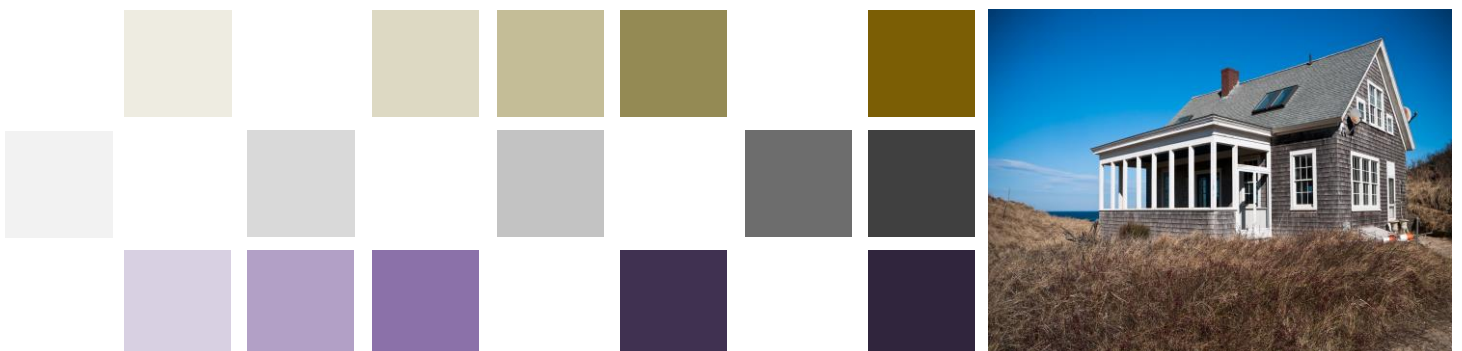
This cost-benefit analysis (CBA) provided indicative analysis to support policy development, but it has several limitations. Because reliable data was limited, the analysis relied heavily on assumptions. Some of the final policy decisions also differed from what the CBA tested.

These gaps mean the results carry a degree of uncertainty, and some costs and benefits could not be explored in depth. Despite these issues, completing a CBA with sensitivity testing is still a key part of policy development, and MBIE kept these limitations in mind throughout the process.

Workstream two: Analysis of self-certification and inspections proposals

Cost-benefit analysis and multicriteria analysis of the second regulatory workstream

Angus White and Rohan Trill
31 July 2025



Contents

Glossary	iv
Executive summary	v
1. Introduction.....	1
1.1 The current legislative framework for construction in New Zealand.....	1
1.2 This workstream is a priority in the context of broader work to improve building sector regulation.....	2
1.3 Overview of limitations.....	4
1.4 Outline for the remainder of this report.....	4
2. Problem definition	5
2.1 Context behind the problem.....	5
2.2 The problem rationale	7
2.3 Objectives of the proposed changes	10
3. Options.....	11
3.1 Options considered for self-certification.....	11
3.2 Options considered for inspections	15
3.3 Options assessment.....	18
4. MCA of options long-lists	19
4.1 MCA framework.....	19
4.2 Theory of change.....	21
4.3 Assessment of the full option set for self-certification.....	24
4.4 Assessment of the full option set for inspections.....	35
5. CBA framework of options short-list	49
5.1 Cost and benefit categories.....	49
5.2 Modelling approach	52
5.3 Quantification of costs and benefits for self-certification	55
5.4 Quantification of costs and benefits for inspections.....	68
6. CBA results	77
6.1 Summary of costs and benefits for self-certification.....	77
6.2 Summary of costs and benefits for inspections.....	79
6.3 Sensitivity analysis for self-certification	81
6.4 Sensitivity analysis for inspections.....	83
7. Discussion.....	85
7.1 Distribution of impacts	85
7.2 Limitations	88

References	90
About Sapere	137

Appendices

Appendix A MultiProof and BuiltReady	97
Appendix B Further context to MCA assessments	99
Self-certification	99
Inspections	111
Appendix C CBA assumptions	123
Appendix D Costs breakdown	132
Appendix E Breakeven defects calculation.....	134

Tables

Table 1: Summary of Self-certification CBA results.....	vi
Table 2: Summary of quantified costs and benefits in the central scenario 10-year NPV for self-certification (millions)	vii
Table 3: Summary of scenario present value costs and breakeven benefits for inspections.....	viii
Table 4: Self-certification options summary	11
Table 5: MCA of the self-certification options	29
Table 6: MCA of the inspection options.....	40
Table 7: MCA of potential package of inspection options.....	47
Table 8: Quantified costs and benefits for self-certification	49
Table 9: Quantified costs and benefits for inspections	51
Table 10: Summary of differences across options for self-certification benefits	66
Table 11: Summary of costs and benefits in the central scenario 10-year NPV for self-certification (millions).....	78
Table 12: Summary of scenario present value costs in the 10-year NPV for inspections (\$ millions).....	81
Table 13: Self-certification sensitivity analysis for Option 1	81
Table 14: Self-certification sensitivity analysis for Option 2.....	82
Table 15: Results of sensitivity analysis for inspections	83
Table 16: Summary of distributional impacts for self-certification	86
Table 17: Summary of distributional impacts for inspections	87
Table 18: Limitations	89
Table 19: Modelling parameters.....	123
Table 20: Self-certification volume assumptions	123
Table 21: Inspections volume assumptions	124
Table 22: Self-certification cost assumptions.....	125
Table 23: Inspections cost assumptions	128
Table 24: Self-certification benefit assumptions.....	130
Table 25: Inspections benefit assumptions	131
Table 26: Self-certification scheme administration costs (\$ millions).....	132

Table 27: Self-certification compliance costs (\$ millions).....	132
Table 28: Inspections non-regulatory implementation cost breakdown (\$ millions).....	133

Figures

Figure 1: Annual deficit/surplus of houses built relative to population increase	6
Figure 2: Summary of self-certification regulatory options.....	14
Figure 3: Theory of change for self-certification options	22
Figure 4: Theory of change for inspections options.....	23
Figure 5: High level summary of self-certification method	53
Figure 6: High level summary of inspections method	54
Figure 7: Proportion of residential dwellings that are single storey	56
Figure 8: Forecast of simple residential dwellings.....	56
Figure 9: Self-certifying plumbers forecast	57
Figure 10: Self-certifying drainlayers forecast.....	58
Figure 11: Distribution of simple residential dwellings built by franchisees.....	60
Figure 12: Forecast of simple residential dwellings built by self-certifier of entire builds.....	61
Figure 13: Scenario 1 – number of BCOs in all BCAs resulting from KPI relative to counterfactual	72
Figure 14: Scenario 2 – number of BCOs in non-compliant BCAs resulting from KPI relative to counterfactual.....	73
Figure 15: Illustrative example of nonlinear relationship between demand, capacity and wait times.....	74
Figure 16: Breakeven results for inspections scenarios	79
Figure 17: Summary of the BCA’s role across the consenting process	98
Figure 18: Breakeven level of additional defects Option 1	135
Figure 19: Breakeven level of defects Option 2.....	136

Glossary

Abbreviation

BCA

BCR

BRANZ

CBA

CCC

DIA

FTE

KPI

LBP

MBIE

MCA

NPV

PCO

PGD Act

PGD Board

RFI

RMA

TA

Stands for

Building consent authority

Benefit-cost ratio

Building Research Association of New Zealand

Cost-benefit analysis

Code Compliance Certificate

Distributional impact analysis

Full-time equivalent

Key performance indicator

Licensed building practitioner

Ministry of Business, Innovation and Employment

Multicriteria analysis

Net present value

Parliamentary Counsel Office

Plumbers, Gasfitters and Drainlayers Act 2006

Plumbers, Gasfitters and Drainlayers Board

Request for Information

Resource Management Act

Territorial authority

Executive summary

In the March 2024 Cabinet paper *Making it Easier to Build* (MBIE, 2024c), the Minister for Building and Construction proposed a workstream to streamline the consenting process and unlock efficiencies in the building consent system. It included options to:

- simplify consent requirements for lower risk activities such as simple residential dwellings and other small structures
- broaden the use of self-certification for some building occupations
- improve building consent processing and services to deliver a more streamlined and standard consenting process.

The Ministry of Business, Innovation and Employment (MBIE) has been progressing this workstream and has engaged us to provide cost-benefit analyses (CBA) and multicriteria analyses (MCA) of this workstream. This report focuses on the second and third bullets, having provided a prior report on the first.

The MCA helped narrow options/packages for self-certification and inspections

A MCA was first conducted on the five options for self-certification and the five options for inspections. The MCA assessed the extent to which options addressed six criteria developed in our prior work on simple residential dwellings: strategic fit, efficient building system, quality regulation, responsive settings, risk, and practicality.

For self-certification, the MCA did not identify any options that were improvements to the counterfactual across all criteria. The merits of options 4 (targeted promotion campaigns of BuiltReady and MultiProof) and 5 (targeted campaign promoting quality assurance) would depend on the effectiveness of the respective campaigns relative to their costs, with a potential for impacts not being materially different from the counterfactual. However, options 1 to 3 (self-certification schemes for plumbers and drainlayers, entire builds, or a fast-track pathway for accredited businesses) involve a degree of trade-off across criteria.

In particular, the options involve weighing the potential efficiencies across the build process with the ability to manage changes in the risks of defects—with the scale of each potential impact depending on scheme uptake. Based on the potential to best meet the strategic objective, and at the request of MBIE, options 1 (a self-certification scheme for plumbers and drainlayers) and 2 (a self-certification scheme for entire builds) were carried forward to consider further in a CBA.

For inspections, Option 1 (a package of non-regulatory measures aimed at increasing uptake of remote inspections and reduce inspection failures) assessed highest overall, being better across some criteria and no worse across any, followed by Option 2 (requiring BCAs to have remote inspection systems and capabilities) and Option 4 (establishing an offence to deter deceptive behaviour), which scored better in some areas and worse in others including practicality. Option 5 (setting KPIs relating to wait times) scored positively overall, with some areas potentially better than the counterfactual and others potentially worse, while Option 3 (requiring BCAs to use remote inspections by default in some cases) assessed the worst. We carried forward a package of options including options 1 and 5

combined, based on some potential complementarities across the options (with components of other options harder to justify), and at the request of MBIE, having shared our draft MCA analysis.

We undertook separate CBAs for self-certification and inspections.

Self-certification is generally expected to provide net benefits if defects increase less than 22 per cent (Option 1) and 47 per cent (Option 2), and uptake is over 6 per cent (Option 1)

We undertook quantification of key costs and benefits able to be estimated, and considered breakeven levels of possible increases in defects and of uptake needed, with the results summarised below.

Table 1: Summary of Self-certification CBA results

	Quantified NPV (\$ millions, central estimate with sensitivities in brackets)	Breakeven level of defects	Breakeven level of uptake
Option 1	19.2 (-7.2 to 72.5)	21.9%	6.1%
Option 2	38.8 (23.9 to 91.2)	46.2%	N/A
Total	58.1		

Under our central assumptions (with sensitivities in parentheses), Option 1 (plumbers and drainlayers) has a quantified net present value (NPV) of \$19.2 million (-\$7.2 million to \$72.5 million), Option 2 (entire builds) has a quantified NPV of \$38.8 million (\$23.9 million to \$91.2 million), and both options have a combined quantified NPV of \$58 million as shown in the table below. This can also be interpreted as meaning that under our central scenario, potential net costs from any increases in defects would need to equal these NPVs for the options not to provide net benefits.

We tested the sensitivity of our results for self-certification (for each option) to varying key assumptions in our analysis and found that Option 2 produced net benefits under sensitivities examined, and Option 1 to 13 of the 15 sensitivities we examined. For Option 2, reducing self-certification professionals' use of self-certification from 50 per cent to 25 per cent, and reducing the average inspection wait time to two days both resulted in an NPV of -\$7.2 million (in contrast to the other 13 sensitivities which all resulted in positive NPVs, the largest being \$72.5 million if the time period modelled is extended out to 20 years).

We also conducted breakeven analysis on two key areas of uncertainty: (1) the maximum allowable increase in defect rates relative to the counterfactual under both options, and (2) the level of uptake of the self-certification scheme under Option 1. We found that defects could increase by up to 21.9 per cent under Option 1, and 46.2 per cent under Option 2, before the NPV becomes negative. In terms of uptake, at least 6.1 per cent of certifying professionals would need to opt in to the scheme for Option 1 to deliver a positive NPV. While we didn't undertake the same breakeven uptake analysis for Option 2, we assessed sensitivity to 20 per cent fewer simple residential buildings being built—which essentially reduces the benefits without reducing the costs associated with self-certifiers participating—and note this sensitivity still produced an NPV of \$26.7 million.

Table 2: Summary of quantified costs and benefits in the central scenario 10-year NPV for self-certification (\$ millions)

		Option 1	Option 2
Costs	Regulatory implementation	\$0.1	\$0.1
	Self-certification scheme administration ¹	\$18.6	\$10.1
	Compliance costs ¹	\$14.8	\$0.4
	Construction costs brought forward	\$0.0	\$0.9
	Subtotal	\$33.6	\$11.6
Benefits	Faster construction completion from avoided inspections	\$52.8	\$29.9
	Faster construction completion from avoided RFIs	\$0.0	\$20.5
	Subtotal	\$52.8	\$50.4
Breakeven increase in defects		21.9%	46.2%
Breakeven scheme uptake		6.1%	N/A
NPV		\$19.2	\$38.8
BCR		1.6	4.4
NPV combined		\$58.1	
BCR combined		2.3	

Inspection efficiency options are estimated to require resulting reductions in construction times of two to 23 days (Scenario 1) or five to nine days (Scenario 2) to justify the quantified costs

For inspection efficiency, limitations in data meant that we estimated the costs (including costs to resource sufficiency to comply with the KPI) under two scenarios and considered the benefits required to justify these costs. We then undertook sensitivity analysis. The two scenarios we considered were where: 1) all increase in inspection capacity modelled to meet the KPI were attributed to the policy and benefits taken across all BCAs, and 2) only marginal resourcing costs to meet the KPI (and benefits required) were taken from those BCAs estimated to be non-compliant with the KPI (based on extrapolation from the limited data available).

Under these scenarios, the greatest cost is the cost associated with additional resourcing to comply with the KPI as shown below. While the breakeven construction time reduction seems large especially for Scenario 1, this needs to be interpreted in the context that: 1) we would expect some level of increase in resourcing under the counterfactual anyway, so costs will likely overstate those relating purely to the policy; 2) wait times would compound if resourcing doesn't match demand, leading to growing wait times; 3) this is the total reduction required in the context of, on average, around 12 inspections per consent (and average construction times of 16 months). The variation in breakeven days reflects both: i) sensitivities analysed, and ii) variations in requirements over the modelled period where savings are least in early years, but as more and more additional resourcing is added, the resulting savings required grows.

Table 3: Summary of scenario present value costs and breakeven benefits for inspections

Cost category	Scenario 1	Scenario 2
Regulatory implementation (\$ millions)	0.01	0.01
Non-regulatory implementation (\$ millions)	1.7	1.7
Compliance costs (additional resourcing to meet the KPI, \$ millions)	947.6	56.5
Total costs (\$ millions)	949.3	58.2
Required reduction in construction time to break even (days, average with extremes of sensitivities in brackets)	13 (2 to 23)	7.1 (4.8 to 9)

Distribution of impacts

Distributional impact analysis (DIA) considers the variance in the impacts of activities across different population groups. In section 7.1, we explored how the impacts from both the self-certifications and inspections options may affect different stakeholders, depending on the stakeholder and their age, ethnicity, disability status, household/family type, geography, and wealth/income level. The greatest variation in benefits and costs is expected to relate to the different geographies and most impacted industry stakeholders (BCAs and potential self-certifiers relative to their competitors).

Limitations of the analysis

Our findings and analysis should be considered within the context of the following limitations:

- Details on the exact application and design of the options being considered are still being refined as part of policy development.
- There are **significant gaps in the data currently available**. As such, we have had to make the best use of available data in the time available. We have highlighted where challenges are greatest and where simplifying assumptions have been required. We have also undertaken sensitivity analysis of key inputs that make a material difference to the results (and used scenarios for inspection efficiency). Consequently, there are significant ranges in the results and high levels of uncertainty (including unquantified risks).
- Details in relation to the data are discussed further in section 7.2.

1. Introduction

The Ministry of Business, Innovation and Employment (MBIE) engaged Sapere to provide cost-benefit analyses (CBAs) and multicriteria analyses (MCAs) of three regulatory workstreams to amend current building regulations in New Zealand:

- **Regulatory workstream one:** to enable simple residential dwellings to be approved more easily, either with or without a building consent.
- **Regulatory workstream two:** self-certification and inspection proposals (the focus of this report).
- **Regulatory workstream three:** options to support building consent authority (BCA) consolidations.

This document concerns workstream two.

1.1 The current legislative framework for construction in New Zealand

Construction in New Zealand is governed by two primary pieces of legislation—the Resource Management Act 1991 (RMA), and the Building Act 2004 (the Building Act). These acts ensure sustainable development and safe building practices.

In addition to these two pieces of legislation, we summarise the Plumbers, Gasfitters, and Drainlayers Act 2006 (PGD Act) because of its relevance to the proposed options for self-certification. The PGD Act regulates plumbing, gasfitting, and drainlaying work in New Zealand.

1.1.1 The Resource Management Act 1991

The RMA requires councils to develop district and regional plans that require land use and development. Most district plans permit the construction of simple residential dwellings and other structures (up to 60 square metres) in residential and rural zones without needing a resource consent, provided they comply with certain permitted activity standards. These standards vary across district plans and may include conditions such as building position, height, and size.

If a simple residential dwelling does not comply with the permitted activity standard, it will require a resource consent. While regional plans do not directly regulate simple residential dwellings, they may require a resource consent in certain situations, such as when installing onsite wastewater systems.

1.1.2 The Building Act 2004

The Building Act establishes the framework for the construction, alteration, demolition, removal, and maintenance of buildings in New Zealand. The Building Act covers various areas, including:

- regulations (e.g. the Building Code)
- rules governing licensed building practitioners and building consent accreditation schemes (e.g. Licensed Building Practitioner Rules 2007)

- the process of applying for building consents.

All building work, regardless of whether a building consent is required, must comply with the Building Code. Currently, constructing a standalone dwelling up to 70 square metres requires going through the building consent process, and any restricted building work must be carried out or supervised by a licensed building practitioner. There are exemptions to building consent requirements for some small detached buildings (up to 30 square metres) such as garden sheds, greenhouses, cabins or sleepouts (MBIE, 2020).

Under the Building Act, there are two fast-track processes for construction—MultiProof and BuiltReady. The MultiProof scheme is a pre-approval scheme for standardised building. It enables faster consenting times by ensuring councils review and decide on a design within 10 working days.

Similarly, BuiltReady provides a fast-track for modular component manufacturing. BCAs must accept designs from certified manufacturers as compliant, reducing consenting times and streamlining the approval process for prefabricated construction. Additional information on these two schemes is provided in Appendix A.

1.1.3 The Plumbers, Gasfitters, and Drainlayers Act 2006

The PGD Act regulates the licensing, standards, and enforcement of plumbing, gasfitting, and drainlaying work in New Zealand. It mandates strict training, exams, and ongoing certification to maintain competency and protect public health. We note that all work must comply with the Building Code, which is regulated under the Building Act.

Plumbers, gasfitters, and drainlayers must be registered with the Plumbers, Gasfitters, and Drainlayers Board (PGD Board). Once they are registered and hold a practising licence, they can carry out plumbing, gasfitting, and drainlaying work in New Zealand. While an individual can (and usually does) hold a licence in multiple areas, each trade requires a separate licence.

Currently, the PGD Act does not allow for self-certification. However, gasfitters are allowed to self-certify their work under the Gas Regulations.

1.2 This workstream is a priority in the context of broader work to improve building sector regulation

New Zealand's building costs have risen 41.3 per cent since 2019, and square metre building costs are about 50 per cent greater than Australia's (MBIE, 2024c). High building costs and unmet housing demand led to the previous government committing to a review of the building system in 2020. The aim of the review was to make the building consent system more efficient and effective. More recently, the government committed to streamlining the building and resource consent process in its 100-day action plan. A range of short-term actions have resulted. They intend to make it easier, cheaper, and faster to build.

Context of broader reforms

In March 2024, MBIE released the Cabinet paper *Making it Easier to Build* (MBIE, 2024c). In it, the Minister for Building and Construction, Hon Chris Penk, proposed a workstream to streamline the consenting process and unlock efficiencies in the building consent system. It includes options to:

- simplify consent requirements for lower-risk activities such as simple residential dwellings and other small structures
- broaden the use of self-certification for some building occupation
- improve building consent processing and services to deliver a more streamlined and standard consenting process.

Self-certification policy work to date

As noted above, the government is exploring self-certification as part of the policy reforms to streamline the building consent process. The self-certification initiative aims to shift some assurance away from BCAs to approved building professionals. The goal is to support housing growth in line with the government's "Going for Housing Growth" commitment.

In October 2024, the government formally announced that it was investigating options for a new self-certification scheme for building and construction professionals (Penk, 2024c). The scheme is intended to be limited to residential dwellings, as they pose a lower compliance risk compared to large-scale or complex developments. The proposal acknowledges that while third-party verification remains essential in some cases, not all work requires BCA oversight, and shifting responsibility to competent professionals could improve efficiency and accountability in the sector.

Inspections policy work to date

The government is exploring remote inspections as a way to improve efficiency in the building consent process. By expanding the use of remote inspections, the government seeks to create a more flexible and responsive regulatory environment, supporting its broader "Going for Housing Growth" initiative. Key benefits of remote inspections include the following:

- Lowering costs by removing the need for inspectors to travel to site. This is particularly important in congested cities and in rural areas with large travel distances.
- Reducing delays by enabling more inspections per day and allowing inspectors to work in other regions remotely to support a region with greater demand.
- Reducing transport-related emissions to the degree that options result in greater use of remote inspections and/or less travel.
- Better recordkeeping and documentation meaning more quality assurance for homeowners.
- Reducing the time wasted by increasing flexibility for both inspectors and building professionals on the day of inspection (Penk, 2024b).

MBIE released guidance in July 2024 to assist BCAs in making informed decisions when adopting and growing their use of remote inspections (MBIE, 2024g). There are currently different approaches to

how remote inspections are used, when they are used, and the technology used, depending on the BCA and the nature of construction within its area.

1.3 Overview of limitations

Our analysis should be interpreted in the context of the following high-level limitations (detailed further in section 7.2):

- Details on the exact application and design of the options being considered are still being refined as part of policy development.
- There are significant gaps in the data currently available. Key limitations include:
 - uncertainty over uptake of self-certification options and effectiveness of promotion campaigns
 - uncertainty over the potential risks around defects, particularly where aspects such as the availability of insurance and financing solutions is uncertain
 - lack of detailed, current data on BCA resourcing, costs, inspection arrangements and wait times (which has required extrapolation of the very limited information available)
 - differences in practices across BCAs and potential opportunities to increase use of remote inspection or consider other options to improve inspection efficiency
 - uncertainty over the potential outcomes of other relevant work that is underway around key related system components such as liability settings, building product certification, and licensing regimes.

Given these limitations, we have had to make the best use of available data in the time available. We have highlighted where challenges are greatest and simplifying assumptions have been required. We have also undertaken sensitivity analysis of key inputs that make a material difference to the results (and used scenarios for inspection efficiency). However, there are significant ranges in the results and high levels of uncertainty (including unquantified risks).

1.4 Outline for the remainder of this report

The remainder of this report sets out the:

- problem definition (section 2)
- options (section 3)
- MCA of the long-list of options (section 4)
- CBA framework for short-listed options (section 5)
- CBA results (section 6)
- discussion of the distribution of impacts and limitations (section 7).

Appendix A provides further detail on the MultiProof and BuiltReady schemes. Appendix B provides further context to the MCA assessments. Appendix C sets out our CBA assumptions, while Appendix D provides more detailed cost breakdowns of the CBA results, and Appendix E shows the breakeven defects calculation.

2. Problem definition

This section sets out: the context behind the problem, the problem rationale, the harm arising from the problem, stakeholder views on the problem/proposal, and the objective of the proposed changes.

2.1 Context behind the problem

Housing affordability is a common concern in New Zealand, primarily due to rising costs and limited supply. The country is experiencing a growing housing shortage, with population growth consistently outpacing the rate of new home construction. In addition, the costs associated with building homes have escalated faster than inflation, further exacerbating affordability issues for many New Zealanders.

2.1.1 Houses are unaffordable in New Zealand

Housing affordability is a persistent issue in New Zealand. Fundamentally, it is a result of demand exceeding supply. As a result, prices have risen, raising concerns around affordability.

Statistics New Zealand (Stats NZ) reports increases across most types of housing costs in the year ended June 2023 (Stats NZ, 2024):

- Total rent payments increased by 4 per cent.
- Total mortgage payments increased by 27.5 per cent.
- Mortgage interest payments increased by 49.9 per cent.
- Property rates increased by 5.9 per cent.
- Building-related insurance increased by 14.1 per cent.

CoreLogic reports similar statistics, finding that in Q4 2023, the average share of income used for mortgage repayments was 49 per cent, compared to a long-run average of 37 per cent from 2004 to 2023. The time needed to save for a deposit has also increased to 9.3 years, up from the long-run average of 7.9 years, while rent-to-income ratios rose to 22 per cent, compared to the long-run average of 20 per cent (CoreLogic New Zealand, 2024).

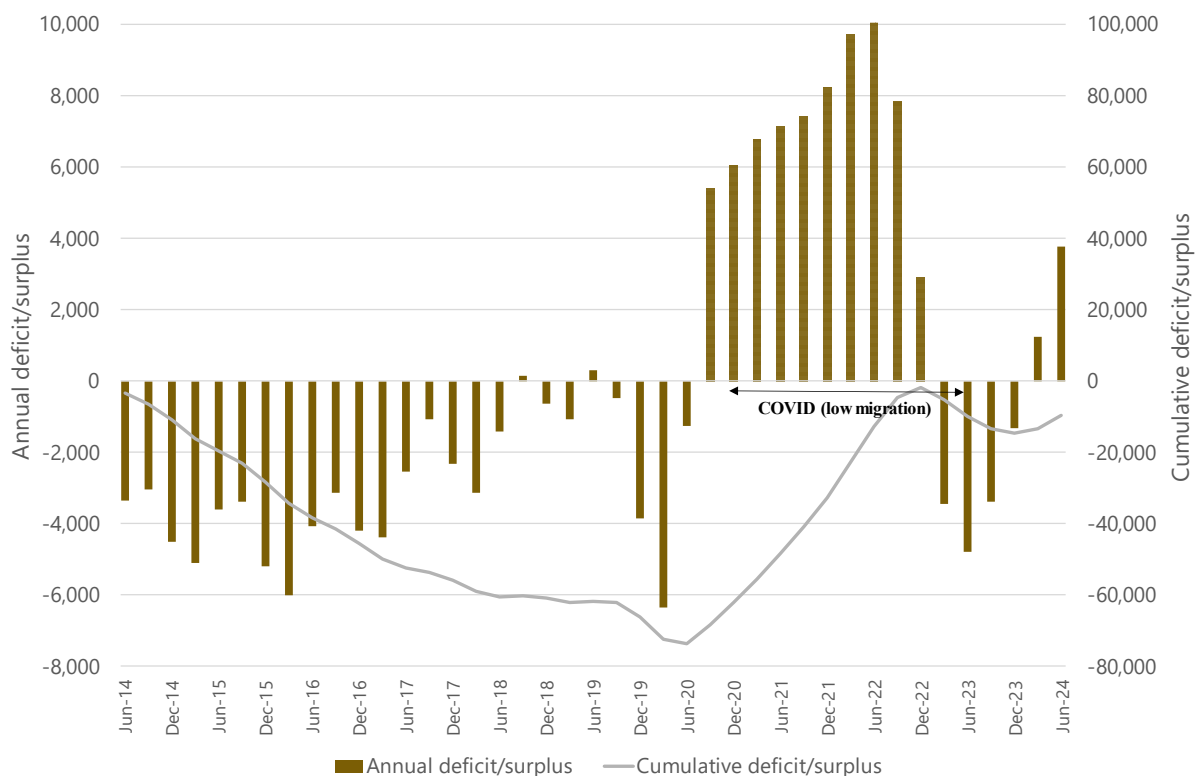
Affordability of housing impacts people unequally, with impacts most significant for households with low socioeconomic status. As of July 2024, there were 23,500 families on the social housing waitlist, and more than 2,000 families living in emergency housing hotel rooms (Bishop, 2024).

2.1.2 New Zealand is experiencing a housing shortage

Figure 1 shows the estimated annual and cumulative housing supply deficit (or surplus) from 2014 to 2024. The annual deficit or surplus is equal to the difference between estimated demand and estimated supply for the year. Estimated demand is equal to each year's population growth divided by the average number of people per dwelling. Estimated supply is the dwellings built in a year.

Over the last decade, population growth has generally outpaced the increase in housing supply, shown by the cumulative deficit line. However, over the COVID-19 period, low migration and continued residential construction resulted in this deficit reducing significantly, though it persists.

Figure 1: Annual deficit/surplus of houses built relative to population increase



Source: Statistics New Zealand, dwellings, population. Analysis by Sapere.

2.1.3 Consenting plays a critical role in housing supply

Building consents are a legal requirement for much residential construction in New Zealand. They ensure that construction projects comply with the Building Code to support occupant safety and the structural integrity of the constructed building. Where building work is exempt from consenting requirements, it still must comply with the Building Code.

The consenting process is summarised as follows:

1. **Application submission:** the applicant must prepare and submit the building consent application to the local council or BCA.
2. **Initial assessment:** the BCA reviews the consent application for completeness and requests any missing information.
3. **Processing:** the BCA must process the complete building consent within 20 business days (or less under certain circumstances).
4. **Decision:** the BCA either grants or refuses the building consent. At this point, the applicant must pay all required fees and levies before a consent is issued. Work must then begin within 12 months of receiving the consent and finish within two years.
5. **Inspections:** the BCA will inspect the building during construction to ensure compliance with the consent and Building Code.

6. **Code Compliance Certificate (CCC):** the applicant must then apply for a CCC once work is complete. The BCA will issue a CCC, provided it is satisfied that the building complies with the consent and the Building Code.

The requirement for a building consent directly affects the timing, cost, and progression of housing development. Under the Building Act, construction cannot legally begin without a building consent (unless exempt), and a CCC is required to formally complete the process. As a result, delays at any stage through this process (from application to CCC issuance) can slow housing delivery.

We understand that a significant proportion of the delays arise from requests for information (RFIs), many of which are linked to applicant-side behaviour. Research conducted by Anthony et al. (2024) indicates that 86 per cent of RFI line items result from sender behaviour (particularly missing or incorrect documentation) while only 14 per cent relate to BCA-side issues. For example, Auckland Council data shows that of the average 55 days taken to grant a consent, 36 days were spent waiting for applicant responses.

This suggests that reducing RFIs, particularly those caused by incomplete or inaccurate applications, would be impactful in reducing delay. While BCA efficiency remains important, broader improvements across the consenting system, including applicant documentation and coordination, are also necessary to improve housing supply outcomes.

2.2 The problem rationale

The problem rationale describes the underlying failure that the regulatory workstream aims to address. In this instance, it highlights the presence of weak or perverse incentives within the current regulatory system for building work.

Responsibilities are not always allocated appropriately within the building consent system

BCAs play a critical regulatory role, but overreliance can lead to system inefficiencies

BCAs are responsible for regulatory oversight of building work. They issue building consents, undertake inspections, and issue CCCs¹ when satisfied on reasonable grounds that the work complies with the approved consent.

While designers and builders are responsible for carrying out work that complies with the Building Code, BCAs play a key role in checking compliance. The Act does not require BCAs to undertake inspections, but it entitles them to do so in order to be satisfied on reasonable grounds that building work complies with the building consent, as part of the CCC process. BCAs may use inspections or other verification methods (such as professional reports) to inform this judgment. However, they are not responsible for guaranteeing the quality of the work or managing all risks on site.

¹ Gasfitting and electrical work is excluded from this process because a form of self-certification exists.

There are weak incentives for first-time building compliance

Building consent review submitters largely agreed that the consenting system should better align responsibility with participants' expertise. However, an overreliance on BCAs for assurance has led some sector participants to shift compliance responsibility onto BCAs rather than taking accountability themselves. Instead of implementing robust quality assurance processes, they may rely on inspections to identify issues, rather than ensuring compliance from the outset.

While building safety, quality, and compliance with the Building Code are shared responsibilities, there are weak incentives for sector participants to get building work right the first time. For example, costs associated with delays, such as RFIs and re-inspections, are typically passed on to consumers, with no penalties for those responsible for the delays.

Inconsistent approaches across BCAs with limited tailoring to risk factors contribute to inefficiencies

Under existing liability settings, BCAs face joint and several liability for non-compliant building work. This means they may bear a disproportionate share of costs when other parties, such as builders or developers, are unable to meet their obligations due to insolvency or other reasons.

In this environment, BCAs have strong incentives to apply a uniformly high level of scrutiny to all building work, regardless of its risk level or the demonstrated competence of the builder. Although BCAs technically have discretion to streamline processes (e.g., by reducing inspection requirements for trusted practitioners), these approaches are rarely used and lack national consistency. This is largely due to the absence of reliable, nationwide data on practitioner performance, making it difficult for BCAs to assess when lower scrutiny might be appropriate.

Significant variation between New Zealand's 67 BCAs further compounds the issue. Stakeholders report that identical building designs are treated differently depending on the BCA involved—some authorities request different documentation or apply alternative assessment criteria. This inconsistency leads to delays, increases compliance costs, and creates uncertainty for practitioners working across multiple regions. It also undermines the scalability of repeatable, standardised housing designs—an important lever for improving housing supply at pace and scale.

Inspection wait times can create costs and disruptions across the sector

Inspection delays have worsened in recent years

Inspection delays have been evident in recent years. During the 2020/21 COVID-19 period, half of councils reported that they failed to process 95 per cent of consents within the statutory 20-day timeframe (Controller and Auditor-General, 2021). These delays occurred during a period of unprecedented challenges, including record high demand for new homes, lockdown restrictions, and unplanned staff absences. New dwelling consents peaked at over 51,000 in the year ending May 2022, up from 37,000 in 2020—a 27.4 per cent increase largely driven by the COVID-19 response. During this period, inspection wait times of three to four weeks were reported in some areas, with Christchurch reporting up to 33 days. A confluence of factors led to inspection delays during the COVID-19 period and while wait times have improved since, there is a risk that projected future

upswings in building activity could place pressure on the consenting system and wait times could become a more significant issue again. Recent evidence has shown some improvement, as a report in late December 2024 stated that 92 per cent of building consent applications over the last quarter were processed within the 20 day statutory timeframe (Penk, 2024a).

Some BCAs have introduced programmes to deal with these issues. For instance, some have established partnership programmes that provide a streamlined service for partners with demonstrated competency. Others accept self-checks from Licensed Building Practitioners (LBPs) on certain types of building work. However, these are not uniform across BCAs, leading to the issue of building consent system fragmentation.

Delays and uncertainty cause challenges across the sector

Any wait times, and uncertainties around (inspection) wait times, can create challenges for all parties involved in the building process. Delays can increase the overall cost of a project, disrupt scheduling, and affect cashflow and housing supply.

For consumers, these delays can postpone moving into a new home, delay renovation timelines, or defer rental income. Builders may face reduced profit margins, as delays impact their ability to manage overheads and complete projects efficiently. Faster project completion can improve builders' cashflow and profitability, while also reducing temporary accommodation costs for owners.

From a scheduling perspective, uncertain wait times make it difficult for builders to coordinate work and plan inspections. Inspectors commonly report arriving onsite to find that the relevant work is not yet ready to be inspected, due to scheduling mismatches or project delays. While builders can sometimes continue with other work or book inspections in advance, this is not always practical, especially if specific inspections are needed before work can proceed.

These uncertainties force project managers to adjust timelines, reallocate staff and subcontractors, or extend equipment hire, increasing complexity and cost. To manage this uncertainty, many builders plan inspections two to four weeks ahead of time, building in buffers to account for possible delays. The uncertainties also contribute to the common behaviour of 'block booking' inspections—booking multiple time slots and cancelling later—which can exacerbate difficulties with availability (as the practice is more likely where wait times may be a problem) and prolong wait times for others.

Without intervention to improve inspection efficiency and reduce delays, these issues are likely to persist, particularly as construction activity is forecast to increase in the coming years.

The building consent system is fragmented, resulting in inconsistencies between BCAs

Building consent applications are delegated to territorial authorities (TAs) that are BCAs. New Zealand's 67 BCAs have developed their own systems and processes and have developed expertise to deliver consenting services to their respective geographics areas. While this expertise has increased the respective areas' efficiencies, it has led to inconsistent interpretations of the Building Code and variations in processes across New Zealand.

Submitters to MBIE reported a range of inconsistencies across BCAs (MBIE, 2022a):

- **Application requirements and processes:** variations in submission requirements, procedures, timeframes, and associated fees.
- **Information technology systems:** differences in software and IT platforms, leading to the need for multiple accounts and login credentials for those working with multiple BCAs.
- **Decisions and outcomes:** disparities in decision-making and outcomes both between and within BCAs.
- **Quality assurance systems:** inconsistent approaches to quality assurance across BCAs.
- **Interpretation of regulations:** variations in how the Building Act, Building Code, and acceptable solutions are applied between and within BCAs.

The inconsistent processes result from the fragmentation of the building consent system. While delegating responsibilities to BCAs aims to improve local efficiency and expertise, it has unintentionally created systemic inefficiencies and uncertainty at a national level. The lack of standardisation and coordination between BCAs has led to duplicated efforts, increased compliance costs, and barriers for volume builders operating across multiple jurisdictions.

2.3 Objectives of the proposed changes

This workstream is part of the government's wider work aiming to streamline the building consent process to increase housing supply and reduce costs.

The objectives of the work in contributing to this outcome are as follows:

Self-certification: to align responsibilities with those best placed to manage risk and improve efficiency and effectiveness of assurance practices to make it faster and cheaper to build simple residential dwellings.

Inspections: to increase predictability, efficiency and innovation in the inspections process.

The self-certification changes also seek to enhance the flexibility of the consent process, making it easier and faster to obtain a consent.

3. Options

This section outlines the feasible options considered for analysis in this CBA. Consistent with the scope of policy proposals, options are split into the options for self-certification and the options for inspections. These two areas are assessed separately.

3.1 Options considered for self-certification

It is important to consider the options that could achieve MBIE’s objectives. MBIE provided us with five options (in addition to the counterfactual) for self-certification:

- **Counterfactual:** No change to the current regulatory settings.
- **Option 1:** Introduce a self-certification scheme for plumbers and drainlayers.
- **Option 2:** Introduce a self-certification scheme to enable entire builds to be self-certified.
- **Option 3:** Introduce a fast-track pathway for accredited businesses only.
- **Option 4:** Targeted promotion campaigns of BuiltReady and MultiProof.
- **Option 5:** Targeted campaign promoting quality assurance to the sector.

A summary of the key features of each option is presented in the table below.

Table 4: Self-certification options summary

Attribute	Option 1	Option 2	Option 3	Option 4	Option 5
Regulator	PGD Board under PGD Act	Chief Executive or MBIE under the Building Act	Chief Executive or MBIE under the Building Act	Same as the counterfactual	Same as the counterfactual
Building consent pathway	Standard pathway with self-certified work not inspected	Nominal consent – no check of design work and no inspections of entire builds	New consent pathway for trusted companies only Intended to support faster/more certain consent times		
Criteria of person or company	Person approved by the PGD Board	Person or company approved by Chief Executive	Company approved by Chief Executive		
BCA liability	For inspected work only	No liability for BCAs	For inspected work only		
Assurance	Joint between BCA and self-certifiers	Self-certifiers	Joint between BCA and self-certifiers		
Work in scope	Defined in the PGD Act	Defined in Building Act: including all work on a simple residential dwelling			

Professions in scope	Plumbers and drainlayers only	All, but volume builders targeted		
-----------------------------	-------------------------------	-----------------------------------	--	--

Across all options, the analysis is based on the scope of work being limited to simple residential dwellings. Simple residential dwellings are defined as the National Building Consent Authority Competency Assessment System’s Residential 1 buildings, including:

- residential outbuildings and ancillary buildings as defined by the Building Regulations 1992
- single storey detached houses designed to common standards with an E2/AS1 risk matrix score of six or less.²

3.1.1 Counterfactual: No change to the current regulatory settings

Under the counterfactual, there is no intervention. The regulatory settings that would occur without any intervention for self-certification are maintained. We assume that the removal of building consent requirements for simple residential dwellings and any increased use of remote inspections is part of the counterfactual, i.e., any changes from the proposed options will be in addition to the removal of building consents and remote inspections.

3.1.2 Option 1: Introduce a self-certification scheme for plumbers and drainlayers

Option 1 would amend the PGD Act and the Building Act to allow parts of simple residential dwellings to be self-certified by trusted plumbers and drainlayers.

The standard consenting process would remain. BCAs would issue building consents, conduct inspections, and issue CCCs at completion. However, they would also now ensure self-certified plumbing and drainlaying work is within the simple residential dwelling definition. BCAs would not inspect self-certified work.

Self-certification would be limited to firms and professionals with proven competency. They would need to have a good track record, adequate means, and sufficient quality assurance processes to qualify. If eligible to self-certify, they would need to register with the PGD Board. The PGD Board would be given powers under the amendment to administer, monitor, and audit the self-certification scheme.

Approved persons would self-certify their work by issuing a ‘compliance certificate’ upon completion. A compliance certificate would be a formal document recognised under the PGD Act. Building owners would specify in their consent application which aspects of the work would be covered by the compliance certificate. Once issued, the certificate would serve as evidence of compliance with the Building Code.

The BCA would not be liable for self-certified work. The Building Act would state explicitly that the BCA would not be liable for work it did not inspect, with liability resting solely with the professional.

² See Building Performance (2025) for further information on the risk matrix.

3.1.3 Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified

Option 2 would enable professionals or firms to self-certify the construction of an entire simple residential dwelling. It would be implemented via an amendment to the Building Act.

Self-certifiers would need to register with MBIE to be able to self-certify. To do so, they would need to have proven competency, a good track record, adequate means, and quality assurance processes. MBIE would approve self-certifiers and audit their work at least once every two years. MBIE will also have the power to conduct more frequent audits.

The standard consenting pathway would remain, but the BCA would play a nominal role in issuing the building consent. Both the design and the subsequent building work would be self-certified. BCAs would issue building consents after checking the firm is authorised to self-certify, and also issue a CCC by default on acceptance of the firm's assurance documentation on completion of the work.

BCAs would not conduct any regular inspections for self-certified buildings. Self-certifiers would obtain, collate, and issue verification documentation as required.

BCAs would not be liable for work, shifting all liability to the self-certifier and responsibility for managing risk of non-compliance onto the building owner.

3.1.4 Option 3: Introduce a fast-track pathway for accredited businesses only

Option 3 would introduce a new fast-track consent pathway for certified businesses only. The fast-track pathway would be limited to simple-residential dwelling construction. It would be largely targeted at (though not limited to) volume builders, providing a more streamlined path through the nationally fragmented consenting system.

BCAs would issue building consents after confirming that the design is compliant with the self-certification specifications. The accredited businesses would be listed on the consent as the responsible builder. BCAs could also specify work that requires a verification document. During construction, they could undertake limited inspections if they wanted, or if regulation required them to. Following construction completion, they would issue a certificate of completion (instead of a CCC).

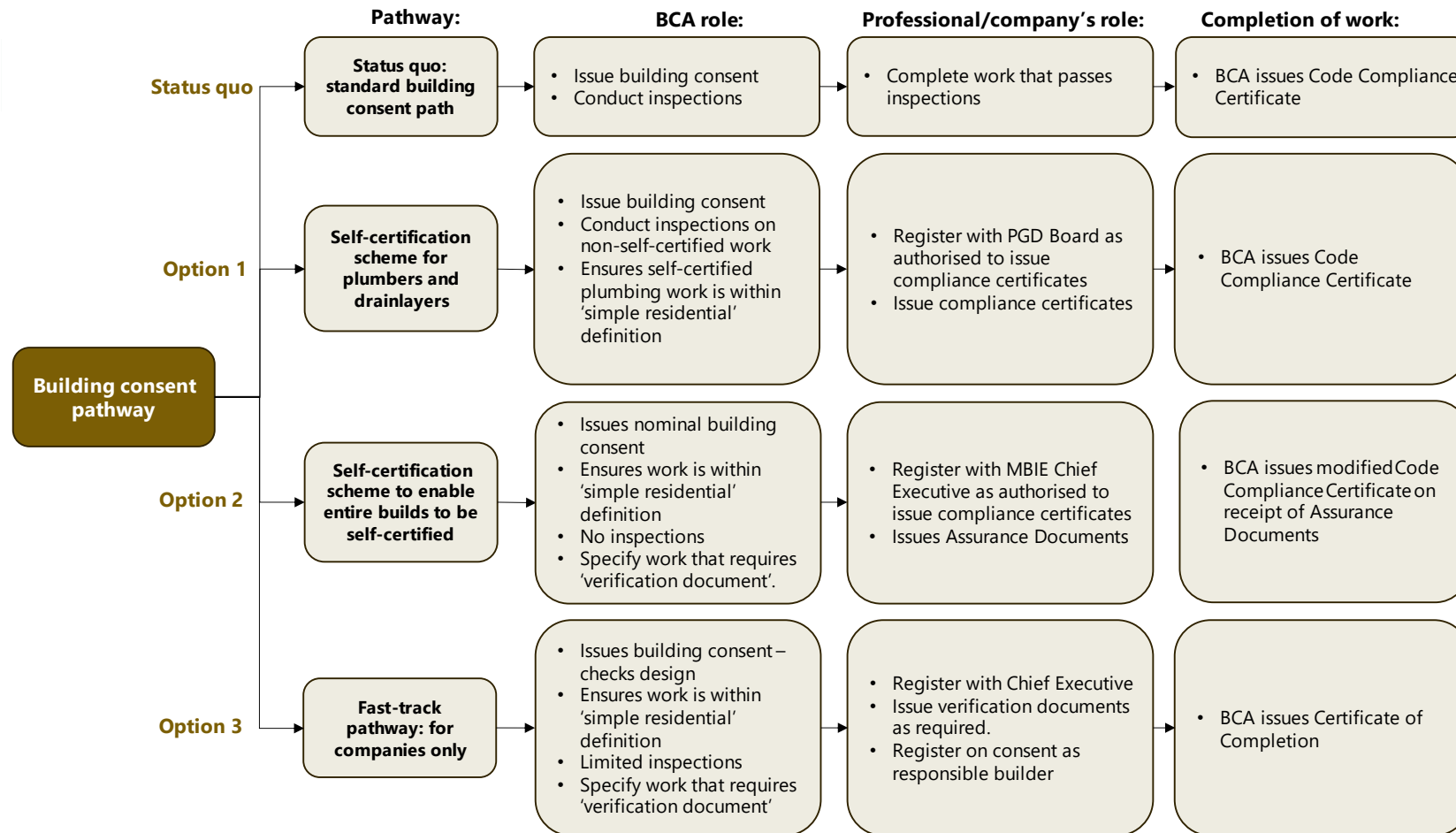
Companies would require a proven track record, robust quality assurance processes, and adequate means (a form of surety to cover civil liabilities should something go wrong). A full list of requirements would be developed in future policy work and set in regulation. Once met, accredited companies would register with the Chief Executive of MBIE and be able to use the fast-track pathway. They would also receive a quality mark to show consumers.

BCAs would still be jointly and severally liable for building work under the scheme.

Most BCA inspections would be replaced by verification documents from trusted professionals, like producer statements. However, a final inspection would be required at the end of the build.

A summary of the three regulatory options is shown in the diagram below.

Figure 2: Summary of self-certification regulatory options



3.1.5 Option 4: Targeted promotion campaigns of BuiltReady and MultiProof

Option 4 involves running a targeted promotion campaign to increase awareness and uptake of the BuiltReady and MultiProof schemes. The campaign would target volume builders, highlighting the benefits of these streamlined approval paths that exist in the current system. The intent would be to maximise the uptake of these existing assurance schemes.

The promotion campaign would be in addition to the recent changes to encourage each scheme's uptake. For MultiProof, regulation was introduced in late September 2024 to clarify the definition of a "minor variation" and to create a definition of a "minor customisation." Other regulation was introduced to enable applicants to specify suitable alternative products, plans, or specifications (MBIE, 2024f).

3.1.6 Option 5: Targeted campaign promoting quality assurance to the sector

Option 5 proposes a sector-wide campaign to promote quality assurance practices. The campaign would target BCAs and professionals to showcase examples of effective quality assurance processes and demonstrate how to leverage modern technologies (such as remote inspections) to improve efficiency. Option 5 would also include formal guidance under the Building Act to assist the sector and BCAs to make the best use of quality assurance processes.

3.2 Options considered for inspections

MBIE provided us with five options for inspections:

- **Option 1:** Non-regulatory measures.
- **Option 2:** Require building consent authorities to have the systems and capability to conduct remote inspections.
- **Option 3:** Require building consent authorities to use remote inspections as the default approach to conducting certain inspections.
- **Option 4:** Create a new offence to deter deceptive behaviour (complementary option).
- **Option 5:** Set a key performance indicator (KPI) for inspection wait times by amending the Building (Accreditation of Building Consent Authorities) Regulations 2006.

Further detail on these options is presented below.

3.2.1 Option 1: Non-regulatory measures

Option 1 is the least prescriptive option and would not require BCAs to either use or have the capability to use remote inspections. The non-regulatory measures include guidance and training for inspectors and builders, monitoring, collecting, and publishing inspection wait times, as well as standardising inspection conventions and identifying and addressing common causes of inspection failure.

Guidance and training for inspectors and builders

Under this option, MBIE would review and update its existing guidance on remote inspections and develop additional guidance to address barriers to adoption. Additionally, MBIE could develop or commission training modules or content that can be shared with training institutes to enhance the efficiency and reliability of remote inspections. These modules would be available for use as part of existing professional development frameworks, rather than MBIE delivering training directly.

Monitoring, collecting, and publishing inspection wait times

In April 2024, MBIE began collecting and publishing quarterly data on the performance of the building consent system, focusing on compliance with statutory timeframes for building consent and CCC decisions. Under Option 1, this would be expanded to include data on inspection wait times and common causes of inspection failures. MBIE could build on its existing performance monitoring framework to systematically collect and report inspection-related data.

Standardising inspection conventions and identifying and addressing common causes of inspection failure

MBIE would develop guidance on standardised inspection conventions to support compliance with Regulation 7(2)(e). This would include standardised naming conventions, clear descriptions of inspection scope at each stage, and a standardised checklist available to both inspectors and builders. The checklist would outline required documentation and any additional requirements for each inspection.

Standardising inspection conventions and addressing the common causes of inspection failure would help ensure that builders are better prepared for both onsite and remote inspections. Avoiding common causes of inspection failure would reduce delays and costs associated with re-work and free up inspection resources.

3.2.2 Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections

Option 2 would require BCAs to have the capability to conduct remote inspections, but would give them discretion over when to use them. BCAs would be encouraged to update their policies and procedures in advance of regulatory amendments to ensure smooth implementation. This would allow time for BCAs to become familiar with remote inspections and to phase in investments in training and technology.

The non-regulatory approach could involve drafting a letter to set out the government's expectations. The regulatory approach could involve seeking policy decisions to amend the Building (Accreditation of Building Consent Authorities) Regulations 2006. For the MCA, we have analysed the impacts of the regulatory approach (see section 4.3.2).

Option 2 is more prescriptive than Option 1, but the uptake and use of remote inspections would remain somewhat voluntary. Having the systems and capability in place would likely result in greater uptake compared to Option 1.

3.2.3 Option 3: Require building consent authorities to use remote inspections as the default approach to conducting certain inspections

Option 3 would amend the Building Act to require BCAs to use remote inspections as the default approach for certain inspections.

Regulations could outline specific types of inspections or criteria for which remote inspections should be used. To mitigate the risk of inspectors missing crucial details during complex remote inspections, the initial focus could be on lower-risk building work, such as plumbing, elements of single-level builds, re-inspections, and inspection types with low failure rates. Over time, as technology advances and BCAs and the sector gain more confidence and expertise in using remote inspection tools, the scope could be expanded. Further consultation would be conducted to refine the details of any proposed regulations.

Option 3 is the most prescriptive option and would result in the greatest uptake. MBIE's discussion document identified that some exclusions from the default requirement may be needed, including when:

- there is poor internet connectivity at the inspection site
- there is poor lighting or adverse weather that may impair video/photo quality
- the inspector and/or builder deem it necessary to conduct an onsite inspection to ensure critical details are not missed
- a building professional has previously been deceptive or regularly failed inspections
- building work is being carried out by an individual with an owner-builder exemption.

Inspectors would also retain the ability to conduct an on-site inspection if they were unable to remotely verify that the building work complied with the consent.

3.2.4 Option 4: Create a new offence to deter deceptive behaviour

Option 4 could be implemented as a complementary option alongside either Option 1, Option 2 or Option 3.

This option would create a new offence to deter deceptive conduct that could result in non-compliant work passing an inspection. It seeks to mitigate the risk that remote inspections can make it easier to hide or disguise non-compliant work. The offence would relate specifically to deliberate actions to hide, disguise, or otherwise misrepresent non-compliant building work, such as submitting images of other completed work or attempting to prevent the inspector from seeing certain aspects of the work.

MBIE proposes that offenders could be liable on conviction to a maximum fine of \$50,000 for an individual and \$150,000 for a body corporate or business.

3.2.5 Option 5: Set a KPI for inspection wait times by amending the Building (Accreditation of Building Consent Authorities) Regulations 2006

Option 5 would require BCAs to complete inspections within a specified timeframe. MBIE asked us to assume BCAs would be required to carry out at least 80 per cent of inspections within five working days of the date requested.

The KPI would be set via an amendment to the Building (Accreditation of Building Consent Authorities) Regulations 2006. It would require BCAs to have policies and procedures to ensure they can meet the proposed KPI, as a condition of accreditation.

International Accreditation New Zealand would monitor compliance as part of their existing two-yearly accreditation assessments. Under this option, the consequences of not meeting the proposed KPI would be the same as for non-compliance with statutory timeframes for the processing of consents and CCCs.

This option would provide BCAs with flexibility to determine how to achieve the KPI. This could include:

- greater use of remote inspections
- reducing the number of inspections for trusted builders
- reducing inspections for low-risk work and re-inspections
- reallocating resources (e.g. training processors to inspect)
- hiring more staff
- contracting out inspection functions
- sharing arrangements with other BCAs to undertake onsite inspections and/or remote inspections.

3.3 Options assessment

Options were assessed iteratively. We first conducted a MCA of all options (section 4). The MCA was used to highlight priority options that we assessed as best meeting assessment criteria, based on current knowledge and with key judgements highlighted (noting the limitations set out in Section 7.2). These priority options were then carried forward and assessed in a CBA based on the New Zealand Treasury's guidance for best practice CBA (sections 5 and 6).

4. MCA of options long-lists

This section outlines the MCA framework we applied and our assessment of the long-lists of options against that framework.

4.1 MCA framework

We set out below the process we undertook to develop the MCA framework, and the resulting MCA framework that we apply to assess the long-list of options.

We drew on early thinking to develop criteria

We held a workshop with, and sought feedback from, MBIE to help determine the relevant approach and criteria to include in our MCA. The aim was to ensure that the approach and criteria aligned with the original intent of our engagement, supported the assessment of options, and enabled consistency in subsequent MCAs for other building regulation proposals.

We agreed the approach taken and criteria chosen needed to be:

- relevant
- complete
- distinct (to minimise overlaps and avoid double-counting).

Based on these criteria and with the above intent in mind, we drew from what had been developed in the initial request for proposals and the early thinking by MBIE and refined these, using our workshop and feedback process to test our proposed approach and criteria.

The approach should meet the above criteria and be used to best fit the context

We determined that the various identified potential criteria should be combined into a relevant, complete, and distinct set of criteria that were focused on the outcomes of interest, which could then be applied to the long-list of options.

The MCA and CBA could then be used to inform recommendations. Rather than explicitly weighting individual criteria, both tools can be used as appropriate for the context. This recognises that: i) the balance of the importance of the CBA and MCA may vary depending on the magnitude and level of uncertainty in the CBA and the extent of qualitative impacts, and ii) certain criteria may be of greater importance given the nature of the context and proposal. Narrowing the options down before undertaking a CBA would, however, ensure that only the most credible options are assessed in detail.

The following criteria were selected to assess options against:

1. **Strategic fit:** fits strategically by addressing the government's priority of supporting growth in affordable housing³ and/or addressing the target problem and achieving intended objectives.

To assess this, we considered the extent to which an option is:

- a) consistent with a stated government priority, political party manifesto commitment, coalition agreement, or stated Cabinet or Ministerial priority, and/or
 - b) whether there is a clear link between the option and the targeted policy objective (relative to the counterfactual), drawing on the identified theory of change (set out in the following section) and considering the potential likelihood or necessary conditions for the intended outcome to be achieved.
2. **Efficient building system:** facilitates building consent process efficiency (including by reducing time delays, compliance costs, and regulatory barriers) and/or efficient factor markets.

To assess this, we considered the extent to which an option (relative to the counterfactual) is likely to support efficiencies in:

- a) building consent processes (reducing time or cost and/or improving consistency or certainty), and/or
 - b) factor markets, such as improving availability or reducing costs of key inputs in the building process.
3. **Quality regulation:** clarity, consistency, and robustness of regulation. The requirements must be understood, avoid duplication, and be consistent with the broader directions for the regulatory system.

To assess this, we considered the extent to which an option (relative to the counterfactual):

- a) meets principles of good regulation, notably being clear, consistent, and proportional/targeted in requirements relative to the problem and existing tools available, and/or
 - b) is consistent with the broader directions for the regulatory system (with key aspects of intended reforms set out in the context component of the theory of change below).
4. **Responsive settings:** the building consent system is responsive, flexible, and settings encourage continual improvement (e.g. through performance and system monitoring, and good information flows and feedback loops).

To assess this, we considered the extent to which an option (relative to the counterfactual):

- a) allows for adjustments to be made based on an understanding of practical outcomes, and/or
- b) enables information on system performance to be captured and encourages continual improvement.

³ Potentially through addressing costs/affordability, streamlining building consents, supporting consistency of practice, and otherwise reducing regulatory barriers. The importance of ensuring quality of housing (durability and safety) is picked up separately in other criteria.

5. **Risk:** risks are allocated to the parties best able to manage them, and the potential for risk and unintended consequences (e.g. risk to public safety) is minimised and/or managed.

To assess this, we considered the extent to which an option (relative to the counterfactual):

- a) allocates risk to the parties best able to manage them (has the information, incentives and opportunities to manage, for instance), and/or
- b) minimises and/or manages risks within the sector and unintended consequences.

6. **Practical:** is feasible, practical, and can be implemented and complied with efficiently.

To assess this, we considered the extent to which an option (relative to the counterfactual):

- a) can practically be implemented and minimises transition costs, and/or
- b) supports efficient operation once established.

In keeping with the template for regulatory impact analysis (Ministry for Regulation, 2025), each option is assessed relative to the counterfactual using the following scale (considering the component parts of each criteria):

++	Much better than doing nothing/the counterfactual
+	Better than doing nothing/the counterfactual
0	About the same as doing nothing/the counterfactual
-	Worse than doing nothing/the counterfactual
--	Much worse than doing nothing/the counterfactual

As outlined above, these criteria are not ordered or weighted and not all need necessarily be met. However, they should inform broader analysis, option design, and implementation and advice. For instance, an option may score well in terms of efficiency and less well in terms of risk (or vice versa), however, the job is then to determine whether the regulatory settings/options are proportionate to the risks. The CBA will help inform this. To assist, below we comment on the potential impact of certain design choices on particular criteria that they would influence.

4.2 Theory of change

A theory of change is a structured framework that shows the flow from policy intervention to the desired outcomes and impacts. In this context, it outlines how the policy options for self-certification and inspections and each of their intended objectives link to intended housing outcomes.

We use the theory of change to map the policy intervention options and help assess the likelihood of achieving the intended objective, outcomes, and impacts. Figure 3 provides the theory of change across the options for self-certification, and Figure 4 provides a theory of change across the options for inspections. The logic of these is set out in greater detail for each option in Appendix B, where we elaborate on the strategic fit criteria assessments. These have been used to inform the impacts in our CBA categories of impact, discussed in section 6.

Figure 3: Theory of change for self-certification options

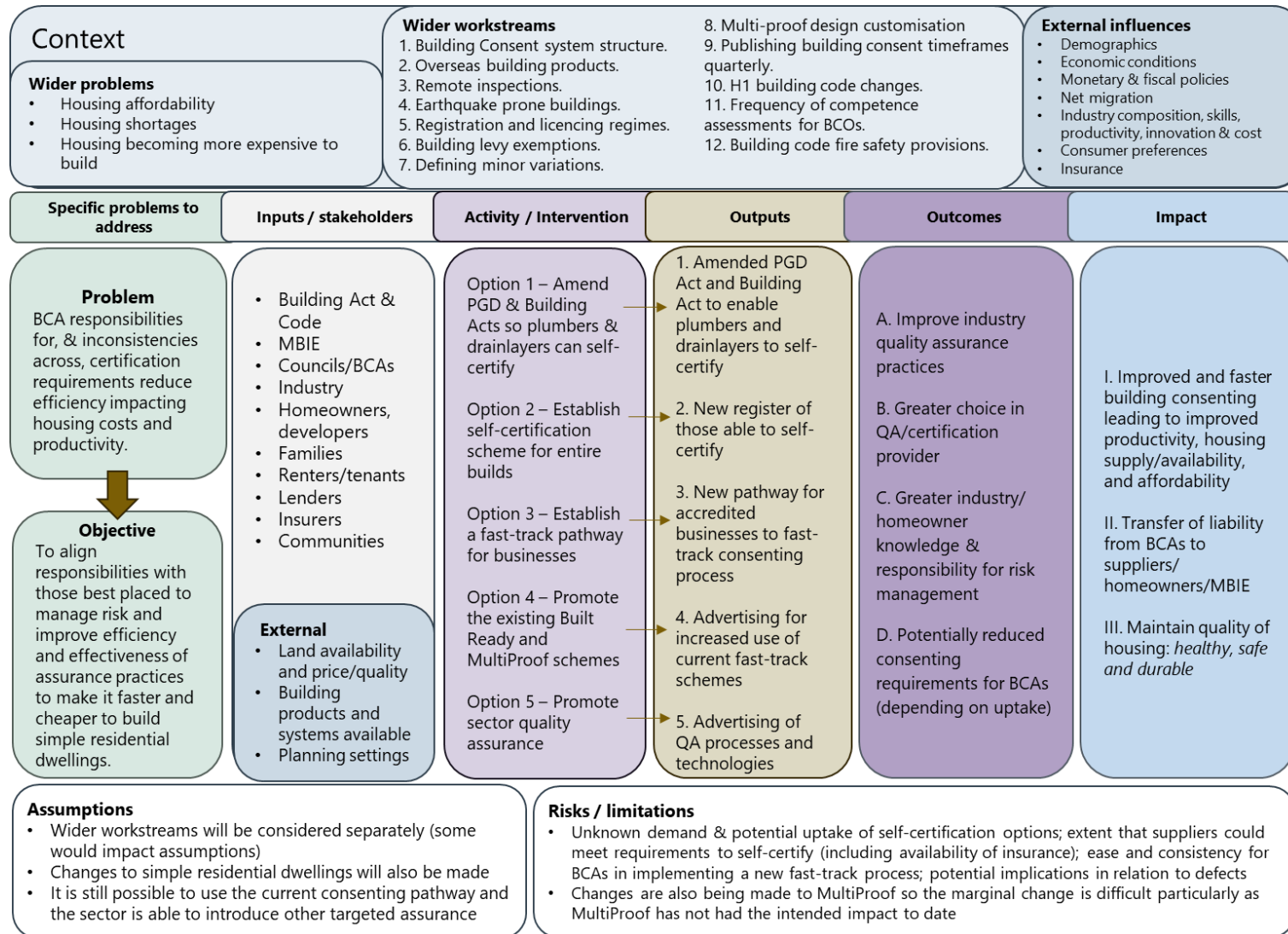
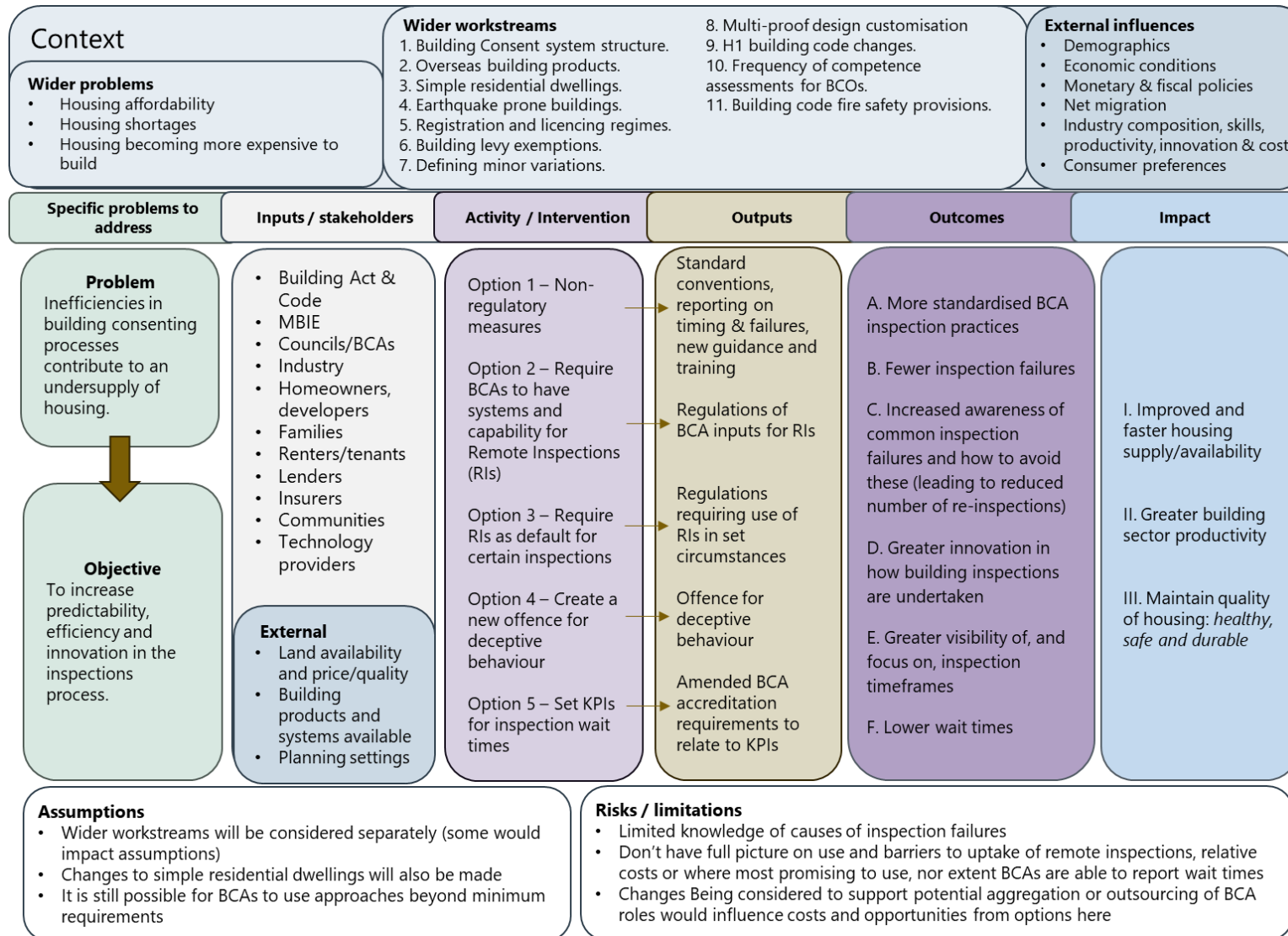


Figure 4: Theory of change for inspections options



4.3 Assessment of the full option set for self-certification

Table 5 outlines our assessment of the five self-certification options against the criteria described above, which we discuss briefly (with further detail on components that have informed the assessments, and show key judgements and aspects which the assessments are sensitive to, shown in Appendix B) followed by a discussion of how option design choices may impact assessment. We then note the options taken forward for full CBA.

4.3.1 Assessment of MCA components

Strategic fit

Option 1 scores the highest for strategic fit because of its alignment with the government's commitment to introduce self-certification for plumbers and drainlayers, and because it would address the problem around misalignment of roles in ensuring compliance with building code requirements, potentially reducing build time and cost, and improving certainty. Options 2 and 3 are also considered an improvement on the counterfactual but have not been scored as highly as they do not enable plumbers and drainlayers to self-certify as envisaged by the National Party's commitment. Option 2 may be a closer fit in this respect than Option 3, if considered to better align with the self-certification commitment (and given some potential interest by Ministers). Options 1 to 3 are consistent with Build-for-Growth (National Party, 2024) and Going for Growth (MBIE, 2025) housing areas of focus, with Option 4 also consistent with the latter.

Options 4 and 5 align least with the National Party commitments around self-certification. The degree to which they achieve policy objectives will depend on the effectiveness of promotion campaigns and whether they target key opportunities for gains. We have assumed the impacts may not be material, but this option would score higher if we had more evidence around likely effectiveness and opportunities.

Efficient building system

Options 1 to 3 are expected to improve the efficiency of the building system by reducing build time and improving flexibility in consenting (by way of alternative approaches that put less pressure on BCAs), and may provide an additional incentive to ensure the quality of work (though could also increase risks of defects, depending on design protections and incentives). The extent of these benefits will depend on the volumes that would take up each option. The potential time savings may be greatest per case under Option 2 as it would apply across all components, but this needs to be compared alongside the potential volumes which may be greater in Option 3 or Option 1. The arrangements under Option 3 may also provide some assistance to consumers and ease decision-making on engaging providers, as well as help to improve industry practices.

Under each of options 1 to 3, suppliers may have additional incentive to ensure quality—if association with defects means there is value they could stand to lose (though this needs to be considered against incentives to minimise costs and the role of audits relative to existing BCA roles). This is likely to be of lesser impact for Option 3 and potentially greatest impact for Option 2.

Under options 1 to 3, costs of the scheme will need to be considered relative to consenting cost/time savings. Scheme costs will depend on requirements of those using the schemes, with a level of requirements necessary to ensure appropriate fit and to mitigate/manage risk of defects. We expect costs to individual participants under Option 3 and Option 1 to be the lower than those under Option 2.

Options 4 and 5 have been assessed as not materially changing from the counterfactual (noting dependencies referred to above). We have assumed the impacts may not be material, but these options would score higher if we had more evidence around likely effectiveness and opportunities. We note that if highly effective, both options would be assessed higher for this criteria (as well as for strategic fit), and also note that changes have been made to address existing issues identified with these assurance pathways under Option 4. Option 5 has potential to increase productivity, particularly around RFIs or, for instance, through the use of the Artisan tool (and would likely be the lowest cost).

Quality regulation

There is little to distinguish across options for the quality of regulation, with all but Option 3 assessed as not being materially different from the counterfactual. Options 4 and 5 don't involve any change to regulations. Option 3 is assessed as slightly worse than the counterfactual as it adds a low to moderate amount of complexity by having a further potential approach that could be applied depending on the entity involved and pathways they are registered under. Additionally, the role of the BCA relative to the fast-track participants may be less clear and consistent across BCAs. Liability arrangements will remain unchanged which could: i) limit national consistency as BCAs must satisfy themselves, and ii) cause confusion for some given the different roles and requirements depending on the applicable pathway professionals may use.

While options 1 and 2 add a small amount of complexity by having differing processes and parties involved across work depending on the approach to certification being taken (and more if both schemes are implemented), the distinction in roles when applied will be clear, though the voluntary nature means there is a wider option set for consumers to understand. Under Option 1, liability may also be more difficult to determine, though the option focuses on elements that are fairly distinguishable in terms of impacts, and the associated liabilities and eligibility requirements are intended to manage this liability.

The robustness of options 1 to 3 depends on the degree to which the safeguards are able to manage risk to consumers and ensure the accountability of the provider for their services and assurances—that is, whether these safeguards are effective in ensuring safe, quality homes as well as that liabilities are met if this is not achieved (noting the potential for liability to be more difficult to determine under these options).

Responsive settings

Option 2 is assessed as worse than the counterfactual in terms of the responsiveness of settings, while Option 1 could be similar or worse. For both, the ease of making adjustments will depend on what is specified in legislation relative to regulations and operational practices. However, with a lower volume of expected examples under Option 2, the information base on which to make adjustments is expected to be relatively less, and the change more significant (applying across components of an

entire build and without equivalent existing practices for existing buildings, as is the case with Option 1). All other options are assessed as similar to the counterfactual.

Any adjustment would be easiest under Option 3, then Option 1, and would be more difficult under Option 2. Under any of these scenarios, it is assumed there is sufficient reporting and monitoring to be able to inform potential adjustments (noting the volume on which to base insights is expected to be different as noted above). Under Option 4 and Option 5 there is no change to responsiveness.

Further to the design choices discussed below, under options 1 to 3 (and potentially as an additional consideration under option 4), design choices could be made to:

- inform/maximise responsiveness such as requirements to provide information to consumers
- MBIE/industry guidance to support consumer choice including understanding risks, respective roles in the system, and consumer protections (and any variations across these under different options)
- reporting and visibility of use of different options that are available to providers/consumers, and how this fits with the level of activity and performance of the broader building system.

Risk

For the risk criteria, Option 2 is assessed as worse than the counterfactual, Option 1 either not materially different to or worse than it, options 3 and 4 not materially different to it, and Option 5 either not materially different to or better than the counterfactual.

Under options 1 to 3, when used, a greater share of risk is allocated to professionals undertaking the work who should be best placed to manage the risk. However, under these options, the adjustments in BCA oversight may increase the risk of defects as a result of poor quality work not being identified or increasing. Any increase in defects would impact consumers as well as provider/sector liability/insurance arrangements.

Under options 1 and 3, the degree of overall risk of defects will partly depend on: i) the extent and effectiveness of associated safeguards, ii) incentives to retain eligibility within each scheme, and iii) opposing incentives to finish work quickly, contain costs, and potentially not identify failings the assurance party may have a degree of responsibility for. As Option 2 relates to *all* parts of construction, where there are indications of high rates of defects already, the potential remaining risk has led to an assessment of worse than the counterfactual.

Option 4 is assessed as not significantly changing the level or allocation of risk, though there is a degree of transfer of risk from BCAs to MBIE and/or relevant providers that would grow with the success of the promotional activities and uptake of the schemes.

Option 5 would decrease risk, with the degree of decrease depending on the effectiveness of the campaign, which we have assessed as either not materially different to or potentially better than the counterfactual if the campaign is successful in achieving its aim.

Practicality

Options 1 to 3 are assessed as worse than the counterfactual, and options 4 and 5 not significantly different to it. Options 1 to 3 all involve effort to set up and administer new schemes. The changes for

MBIE would likely be less for Option 3 than Option 2, though Option 3 may require more from BCAs to set up and embed the new system (but should ease pressures and requirements on BCAs once established).

Option 1 will be able to leverage existing PGD arrangements but will still require changes in legislation and addition of requirements specific to the scheme (while saving requirements of BCAs to which the schemes apply). This is true of Option 2 as well, with different legislative changes and more implementation requirements from MBIE rather than the PGD Board.

The degree to which options support a more efficient sector or operation once established is discussed under “efficient building system” above, with the potential for some offsetting benefits for options 1 to 3 once established. The monitoring, enforcement, and auditing requirements are touched on under “responsive settings” above and are considered further for options focused on in the CBA (together with set up costs).

Other aspects that are relevant to the ease of complying with requirements include those relating to design choices as well as the ability of providers/consumers to obtain appropriate insurances under different options, and the practicality for homeowners to seek redress under different options (which other workstreams relating to building regulations may also be important for, such as liability settings and registration and licensing regimes).

Impacts of different design choices

The MCA assessment discussed above will depend on regulatory design choices that are yet to be made, such as specific eligibility criteria and requirements for those opting in to options 1 to 3 in terms of reporting and complying with the schemes. We have tried to illustrate above, and in Table 5 and Appendix B, how different design choices may impact assessments for individual criteria, notably risk and quality regulation relative to efficient building system and practicality as well as the extent of impact (influencing strategic fit through the extent to which outcomes, impacts, and policy objectives may be achieved).

In particular, the greater the eligibility criteria and compliance requirements for the target self-certification groups under options 1 to 3, the lower the likely uptake of self-inspections and the greater the cost of the schemes to participants. However, this needs to be balanced against ensuring a level of confidence in those providing self-certification and visibility as to their performance (or confidence in allowing for fast-track arrangements under Option 3), and importantly, managing risk and increasing the ability to adapt settings if required.

For instance, we understand the criteria for options 1 to 3 are still being considered, but criteria could relate to:

- technical competency and experience
- demonstrating sufficient quality assurance processes and systems
- financial capacity and/or liability insurance (adequate means to cover civil liabilities)
- demonstration of processes to manage conflicts of interest
- demonstrating fit and proper person.

Therefore, there will be administrative costs to demonstrate suitability to be eligible, as well as costs (potentially capital as well as operating costs) to develop/tailor systems and processes and to meet financial requirements. The extent of these costs will depend on how stringent the requirements are. For example, if quality assurance processes are required to be certified by an independent body, this will involve a significant cost. However, if demonstrating capability to use the Artisan tool and adopting its use during the construction process is a sufficient quality assurance process, this would have much lower costs.

As opting in to self-certify is voluntary, the relevant potential groups would need to weigh up against the benefit to them in terms of ability to attract work they are interested in (or added competitiveness), and potential premiums they may be able to charge that might be supported. To the extent that self-certification may remove BCAs as potentially sharing in any liability for relevant consented work, any resulting impact on insurance costs would also be a factor that would impact uptake of any of these arrangements for the relevant professionals to consider.

These design choices are expected to have the most potential impact for options 1 and 2. Across an entire build, there may be more opportunity to recover these costs, though systems would need to be able to track across sub-trades. In either case, we expect only those undertaking multiple relevant projects per year to justify opting into the scheme. For a lower value per job, Option 1 may be more sensitive to the requirements for providers. Potential sensitivities around uptake are considered further for the CBA of options taken forward.

Table 5: MCA of the self-certification options

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
1) Strategic fit	<p>++</p> <p>Consistent with National Party commitment, Build-for-Growth and Going for Growth housing areas of focus (National Party, 2024; MBIE, 2025).</p> <p>Links to each outcome in theory of change. Also links to policy objective and theory of change impacts, with the strength of link/overall impact dependent on uptake but limited to the portion of build costs related to plumbing and drainlaying.</p>	<p>+ / ++</p> <p>Consistent with Build-for-Growth and Going for Growth housing areas of focus.</p> <p>Links to each outcome in theory of change. Also links to policy objective and theory of change impacts, with the strength of link/overall impact dependent on uptake but limited to work on entire builds.</p>	<p>+</p> <p>Consistent with Build-for-Growth and Going for Growth housing areas of focus.</p> <p>Links most closely to reducing consenting requirements outcome in theory of change. Also links to policy objective and theory of change impacts (other than transfer of liability), with the strength of link/overall impact dependent on uptake and design//application by BCAs.</p>	<p>0 / +</p> <p>Consistent with Going for Growth housing areas of focus.</p> <p>Links most closely to the reducing consenting requirements outcome in theory of change. Also links to policy objective and theory of change impacts (other than transfer of liability), with the strength of link/overall impact dependent on campaign effectiveness (which we assume is more limited) and the application of the schemes by BCAs (noting the November 2023 review of MultiProof identified that at that stage. MultiProof had not led to timeframe improvement, was typically checked the same as other designs, and some BCAs charged extra fees to process a MultiProof—see Appendix A).</p>	<p>0 / +</p> <p>Links most closely to the improved quality assurance practices and greater industry/homeowner knowledge and responsibility for risk management outcome in theory of change.</p> <p>Also indirectly links to policy objective and the theory of change impacts (other than transfer of liability, and more closely linked to maintaining quality), with the strength of link/overall impact dependent on campaign effectiveness (which we assume is more limited).</p>

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
2) Efficient building system	<p>+</p> <p>i) Should reduce some of the build time where internalising assurance reduces wait times and re-inspections/time associated with any re-work (particularly if there is an efficient interface with BCAs),</p> <p>ii) Should improve flexibility in the face of any BCA constraints and options for consumers to seek out alternative assurance pathways/providers to consider their offerings.</p> <p>Targets areas where the BCA assurance role is minimal (in practice) and risks should be more contained. Nevertheless, the associated costs and impacts on consumers whose role increases need to be worked through in the CBA alongside these benefits.</p>	<p>+</p> <p>Should support (i) and (ii) in Option 1 too, including through consenting and CCC times. Application across entire builds may increase risk and pose more of a challenge for uptake but present opportunities, particularly for volume builders. Like Option 1, net effects relative to costs will need to be considered alongside expected uptake.</p>	<p>+</p> <p>Should: i) reduce some of the build time if faster-track in practice, ii) improve the ability to flex where there are BCA constraints/consumer options, as the certification by MBIE will inform the BCA and public that this is a trusted builder, assessed as having robust quality assurance processes and a good track record.</p> <p>Company verification may increase flexibility in the building consent system for these businesses, and potentially add an incentive to ensure quality if the supplier faces increased risk from poor work (due to potential loss of accreditation).</p> <p>There is a risk that professionals' compliance, accreditation, and coordination across different points of assurance adds costs in excess of those saved by BCAs, particularly if in</p>	<p>0</p> <p>May reduce build time for those that take up these schemes and where they achieve their intent, and potentially increase understanding of consumer options. We assume the impact may not be material.</p>	<p>0</p> <p>May reduce some of the build time if successful in resulting in fewer failed inspections. The materiality will depend on the campaign's effectiveness. We assume the impact may not be material.</p>

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
			practice the BCAs end up needing to duplicate assurance aspects for their purposes.		
3) Quality regulation	<p>0</p> <p>Adds a small amount of complexity to the PGD Act and Building Act because the certification role of BCAs and professionals will vary depending on the nature of work covered as part of a building consent, and whether the voluntary self-certification scheme is used or not.</p> <p>However, it is consistent with gas fitters' self-certification, and work that can be self-certified would likely align with areas where there is least disruption and the greatest confidence. The approach is also consistent with work that plumbers can undertake without requiring a consent as per schedule 1 of the Building Act.</p>	<p>0</p> <p>Adds a small amount of complexity to the Building Act, though the role of professionals and BCAs will be distinct and clear (when applied). However, the voluntary nature means there is potential for confusion with consumers.</p> <p>Robustness links to risk criteria below and how well this is able to be managed by the use of appropriate safeguards.</p>	<p>-</p> <p>Adds low to moderate complexity to the Building Act. The role of BCAs relative to accredited businesses will be less clear and determined by BCAs, which may lead to inconsistency across New Zealand.</p> <p>Liability will be more difficult to determine.</p> <p>Robustness links to risk criteria below and how well this is able to be managed by the use of appropriate safeguards.</p>	<p>0</p> <p>No change to regulation. Some additional consistency where applied.</p>	<p>0</p> <p>No change to regulation.</p>

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
	Liability may be more difficult to determine. Robustness links to risk criteria below and how well this is able to be managed by the use of appropriate safeguards.				
4) Responsive settings	0/- The self-certification assurance roles could be adjusted over time. However, the ability to detect issues in self-regulated work will be limited by the frequency and extent of any audit/monitoring.	- The self-certification assurance roles could be adjusted over time. However, the ability to detect issues will be limited by the frequency and extent of the auditing function or application of any other monitoring safeguards.	0 The application of fast-track could be adjusted over time. The ability to detect issues will be controlled by the frequency and extent of auditing and the BCA's own inspections. It is assumed that BCA's inspections will occur at a level sufficient to manage their liability risk and that there is not a material change in defects as a result.	0 No change to responsiveness.	0 No change to responsiveness.
5) Risk	0/- Risk and liability will be more appropriately allocated to professionals completing the work, though may be more difficult to determine in some instances.	- Risk and liability will be more appropriately allocated to professionals completing the work. Lack of BCA oversight over <i>all</i> parts of construction may increase the risk of defects,	0 Risk and liability will be more appropriately allocated to those completing the work, though may be more difficult to determine in some instances.	0 No significant change to risk levels or allocation.	0 /+ Risk will decrease to the extent that professionals' quality of work increases. As above, the materiality will depend on the campaign's effectiveness

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
	<p>Lack of BCA oversight over some parts of the construction process may increase the risk of defects.</p> <p>If safeguarding mechanisms such as a proven track record and quality assurance processes effectively mitigate this risk, the overall impact is no material change in risk with improvements of risk allocation. However, the potential increased risk of defects means there is a chance that risk is worse than under the counterfactual.</p>	<p>particularly without the BCA role.</p> <p>While safeguarding mechanisms will be designed to mitigate some of the risk of defects, this option removes the BCA assurance role altogether for these works. The incentives to maintain self-certification will promote higher quality work, thereby reducing, though not eliminating, the risk.</p>	<p>Lack of BCA oversight over <i>some</i> parts of construction process for the self-certification pathway increases the risk of defects.</p> <p>This rating assumes that safeguarding mechanisms, both within the scheme design and from BCAs' required inspections, will appropriately mitigate the risk of defects (however there is a downside risk that will need to be monitored and managed).</p>		
6) Practical	<p>-</p> <p>There will be effort required to set up and administer the self-certification scheme.</p> <p>Regulations will need to specify work that can be self-certified (prescribed in the PGD Act).</p> <p>Self-certification of non-inspected work will vary by construction project (due</p>	<p>-</p> <p>There will be effort required to set up and administer the self-certification scheme.</p> <p>The distinct roles of self-certifiers and BCAs will ensure compliance with the scheme is clear and understood.</p>	<p>-</p> <p>There will be effort required to set up and administer the accreditation scheme.</p> <p>BCAs will be required to specify work that requires inspections. This specification may lead to inconsistencies across New Zealand and tension between BCAs and accredited businesses.</p>	0 Some additional promotion required.	0 Some additional promotion required.

	Option 1: Introduce a self-certification scheme for plumbers and drainlayers	Option 2: Introduce a self-certification scheme to enable entire builds to be self-certified	Option 3: Introduce a fast-track pathway for accredited businesses	Option 4: Targeted promotion campaigns of BuiltReady and MultiProof	Option 5: Targeted campaign promoting quality assurance to the sector
	to this option for self-certification being voluntary).		Some BCAs have existing fast-track paths that should increase the ease of adoption.		
Overall assessment	0 – 2	-1 – 0	0	0 – 1	0 – 2

Key to assessment:	
++	Much better than doing nothing/the status quo/counterfactual
+	Better than doing nothing/the status quo/counterfactual
0	About the same as doing nothing/the status quo/counterfactual
-	Worse than doing nothing/the status quo/counterfactual
--	Much worse than doing nothing/the status quo/counterfactual

4.3.2 Options 1 and 2 are taken forward for CBA

The MCA did not identify any options that were improvements to the counterfactual across all criteria. The merits of options 4 and 5 seem to relate most clearly to the potential effectiveness of the respective campaigns relative to their costs. Options 1 to 3 involve a degree of trade-off across criteria, and will depend on uptake and ability to manage changes in the risk of defects relative to potential efficiencies across the build process. Based on the potential to best meet the strategic objective, and at the request of MBIE, options 1 and 2 are carried forward for further CBA.

We note that implementing Option 1 and Option 2 together would involve effort across two pieces of legislation, and setting up and administering two separate self-certification arrangements. If Option 2 were to be implemented (relating to entire builds), the benefits of Option 1 may be reduced with some of the benefits being captured as part of the entire new build self-certification. However, Option 1 would still incur largely similar costs with only a small amount of efficiencies, possibly in implementing and monitoring, largely for MBIE—any additional benefits would come from the self-certification of plumbing and drainlaying work associated with new builds that were not covered under Option 2. Likewise for Option 2, if Option 1 were being implemented it may reduce some of the benefits from self-certification—benefits that may have already been achieved relative to the counterfactual for plumbing and drainlaying elements relevant to Option 1.

If the overall assessment for Option 1 were somewhat reduced to reflect the potential for Option 2 to occur anyway, this still appears to be worth considering further, though will depend on the likely volume of uptake that it might apply to.

4.4 Assessment of the full option set for inspections

Table 6 shows our assessment of the inspection options against the six criteria explained above, which we discuss briefly before discussing how option design choices may impact assessment. We then note the options taken forward for full CBA.

4.4.1 Assessment of MCA components

Strategic fit

Options 1 and 2 are assessed as better than the counterfactual, Option 4 about the same, and options 3 and 5 potentially better or about the same.

Option 1 should support achieving the objective of minimising delays and providing certainty by increasing consistency and reducing inspection failures.

Option 2 is expected to improve flexibility and minimise delays/wait times, assuming it improves the use of remote inspection technologies. Improvements may occur as a result of ensuring remote inspections are a viable option for BCAs to apply, with the likelihood/magnitude of improvements depending on: i) the extent to which systems/capability availability are a barrier to the use of remote inspections (with some logic and anecdote but limited evidence), and ii) the ability of the use of remote inspections to translate to time savings once their application is optimised by BCAs (and technology providers, noting this has not typically been the case in their application to date).

Option 3 could improve on the counterfactual if it is possible to identify and specify circumstances for remote inspection to be applied as a default approach, which result in improvements when applied across the relevant builds and BCAs (this would be subject to further work to identify such cases). Given the likely challenges in determining default cases given varying BCA and inspection circumstances (i.e. local context, resourcing, and operational approach, etc.), it is possible the strategic fit is about the same as the counterfactual (the risk of being worse should largely be mitigated by the ability for onsite inspections to still be used if necessary).

Option 4 is assessed as about the same as the counterfactual, as we are not aware that deceptive behaviour is a material issue at present, but we note that the option could support managing risks which could emerge with increases in remote inspections.

Option 5 will set KPIs that BCAs will need to show they have systems in place to meet. This should provide strong incentives to minimise delays and provide flexibility and inspection wait time certainty. The degree of impact will depend on:

- the distribution of current wait times relative to the performance set under the KPI, and
- the opportunities available to BCAs to improve efficiency and/or wait times.

The first of these is relevant to whether there are incentives to improve, or alternatively, the potential for BCAs to instead focus purely on meeting the lower KPI when making decisions rather than continuing to provide performance that may exceed the KPI (noting that publishing this information will in itself provide an incentive not to stand out in terms of poor performance, and ideally maintain performance or continually improve). The second of these will also depend somewhat on the ability of BCAs to influence the actions of other stakeholders (such as providing the necessary information, for instance).

Efficient building system

Options 1 and 2 are assessed as better than the counterfactual, while options 3 and 4 are considered about the same, and Option 5 either better or about the same.

Option 1 should support savings across the build process by improving certainty of requirements and processes, and potentially reducing re-inspections and re-work.

Option 2 should also improve, to a lesser extent, on the counterfactual in supporting voluntary use of remote inspections and therefore their uptake when there is a clear case and investment in the necessary systems. However, if the option requires investments in systems and capabilities associated with remote inspections that are not actually used (or not used sufficiently to justify the investments), or consenting times deteriorate following the use of remote inspections (as has occurred in instances looked at to date), there is a risk of reducing efficiency.

Option 3 is assessed as about the same given the difficulty discussed above in specifying cases to apply as a default approach that we can be confident will work well across different BCA and building inspection circumstances.

Option 4 is assessed as unlikely to directly improve productivity, save time, or reduce costs during the inspection process through to CCC given the unclear size of the problem it targets. However, if it results in fewer re-inspections or less time needed for individual inspections, it would assess better

(e.g. through the provision of better information initially). While there is a conceptual case in encouraging quality information from the start, we do not have evidence to support a strong impact in our assessment.

As discussed above, impacts for Option 5 depend on the ability to support improvement in wait times relative to the counterfactual. As there should be a strong incentive, it could improve on the counterfactual. However, we understand that most TAs currently exceed the suggested KPI, so possible efficiency across the building system may be about the same under this option as the counterfactual.⁴ While there is a risk that BCAs reduce performance to the level of the KPI, the publishing of wait times (and wording as a minimum requirement rather than a KPI, as has recently been announced (MBIE, n.d.) should manage this risk as any deterioration would be visible in monitoring and to the public.

Quality regulation

Options 1 and 5 are assessed as better than the counterfactual on quality, Option 2 about the same, Option 3 about the same or worse, and Option 4 about the same or better.

Option 1 will support the evidence base for understanding performance across the system and targeting guidance and support for areas where issues are greater or there is the most opportunity.

Option 2 will support a level of consistency across BCAs, but the case for remote inspections (possible unmet demand) or the extent to which capability and systems are the key barrier to uptake appears to be largely anecdotal.

Option 3 adds moderate complexity to the Building Act, and specifying the cases where use of remote inspections is mandatory could be difficult⁵ and potentially confusing. However, it may also be possible when setting the default applications to target areas where there is a strong case for their use.

Option 4 adds clarity to the Building Act by implementing regulation to prevent deceptive behaviour. However, determining the scope and application (i.e. what the bar is, when it would be applied, evidential requirements, and resourcing the application of the offense) could be difficult and limit the practical use of the intervention.

Option 5 provides clarity and consistency of requirements across BCAs and supports certainty in the industry. It is possible this could be achieved by non-regulatory levers, but we understand the regulatory approach provides a stronger signal by making a regulatory requirement and linking to accreditation.

⁴ Though increases in activity would place additional pressures that this option would require be considered early.

⁵ As cases would need to be more efficient and effective across BCAs and BCOs, potentially irrespective of the counterpart (industry provider/customer), factoring in the nature of the relevant building work/inspection.

Responsive settings

Option 1 is assessed as much better than the counterfactual, Option 2 better, Option 4 about the same, Option 3 worse, and Option 5 potentially better or about the same.

Monitoring and publishing wait times, identifying and addressing common reasons for inspection failures, and updating guidance and providing training all support continual improvements and responsive settings under Option 1.

Option 2 improves the flexibility of the inspection process and ensures those BCAs that may not have the systems and capability to conduct remote inspections are able to respond to opportunities and demands where appropriate to apply this approach. The option could be designed to allow for ongoing technology change, and to manage risks of technology lock-in or to BCAs in implementing the change.

Option 3 will limit BCAs' discretion in using remote inspections (depending on the selection defaults where it is to be applied, and noting BCAs can always use remote inspections outside of the default requirements). The default requirements could lead to BCAs deferring to nationally specified defaults at the expense of considering the optimal applications and practices in their circumstances (e.g. available technologies, capabilities, and demands). This could slow or limit BCAs' responsiveness to opportunities, but also potentially mute internal feedback loops including around risks (though the exemptions are designed to enable risk management).

Option 4 is a discrete change that will not materially impact the overall responsiveness of settings.

Option 5 could help drive continual improvement and incentivise responsiveness to opportunities to help reduce inspection wait times, but there may be some transition costs to adjusting regulatory settings (e.g. the maximum wait times or the mechanism of being an accreditation requirement).

Risk

Option 1 is assessed as improving on the counterfactual in relation to risk, while Option 3 is assessed as worse, options 2 and 5 are either about the same or worse, and Option 4 is about the same or better.

Option 1 involves supporting builders in managing risk by helping to identify and address reasons for inspection failures.

Under Option 2, any resulting increase in the use of remote inspections could risk greater non-detection of non-compliant work. However, if BCAs are effective in targeting the use of and applying remote inspections, the risk could be about the same as under the counterfactual.

Depending on where remote inspections are required, Option 3 could limit the ability for BCAs to identify and address matters that then become issues at later stages of a build. As a result, this could increase the risk of re-work.

Option 4 aims to mitigate risk by deterring deceptive behaviour, so could improve upon the counterfactual, however instances of the building industry intentionally deceiving inspectors may be rare meaning the risk is not changed materially (particularly if there are challenges in utilising the offense in practice).

Option 5 could result in risk being about the same as under the counterfactual if wait times are published early on, and mechanisms to support meeting the KPI are available and clear. However, there is a risk that either:

- KPIs are set too low and BCAs become unwilling to accommodate urgent requests so as not to jeopardise their KPI metrics, or in meeting the metric, shortcuts are taken that introduce risks
- (if KPIs are set below current practice) some BCAs adjust their decision-making to focus on ensuring the KPI is met, even if that results in a reduction in service (e.g. instead of resourcing to maintain no wait time, resourcing is relaxed to simply to meet the KPI, thereby inducing a wait time that otherwise might not have been allowed).

Practicality

Options 2 to 4 are assessed as worse than the counterfactual in terms of practicality, while Option 1 is about the same, and Option 5 is either the same or worse.

Option 1 will require some MBIE resources and some additional cost to BCAs (with potential costs to builders/industry wishing to keep up with changes—e.g. understand common failures), however it is feasible and practical and should support efficient application of the building regulatory system.

Options 2 and 3 will both involve some additional costs to BCAs to implement. Option 2 is feasible and practical with its efficiency depending on the extent to which it may require investments from BCAs that end up having little use. Option 3 is expected to be more challenging practically in terms of identifying and designing the default situations that should be targeted for requiring remote inspections (given differences across BCAs/builds), and efficiency will depend on this design of where remote inspections are to be the default, and how this default is applied by BCAs.

BCAs may face challenges under Option 4 in proving intent, and could also find themselves unable to recover the costs associated with investigating and prosecuting offenses.

Option 5 is both feasible and practical, but is likely to involve additional costs associated with measures to meet KPIs. There may also be challenges in setting KPIs at the right level to support the intended outcomes (as discussed in relation to “Risk” above).

Table 6: MCA of the inspection options

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
1) Strategic fit	<p>+</p> <p>Supports government commitments to increasing the use of remote inspections and consistent with the government’s Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Supports efficiency in inspections through to CCC. This will support the objective to minimise delays and provide certainty around inspection wait times.</p> <p>Consistent and complementary to other regulatory initiatives being considered (such as BCA coordinating/sharing of services/functions or contracting out).</p>	<p>+</p> <p>Consistent with government commitments to increasing the use of remote inspections as well as Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Supports flexibility and the use of an approach to improve efficiency of inspections. This will support flexibility of inspections and could improve timeliness of inspections and minimise delays, if able to be developed and applied with better success than some of the case studies to date.</p> <p>Requiring BCAs to have the systems and capability to conduct remote inspections will likely induce uptake in their use more than Option 1, though Option 1 may</p>	<p>+ / 0</p> <p>Consistent with government commitments to increasing the use of remote inspections as well as intent of Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Requires the use of an approach aimed to improve efficiency of inspections.</p> <p>Requiring BCAs to use remote inspections as the default approach may result in the highest uptake. As with Option 2, this could support minimising delays in inspections. However, depending on the choice of design for where these are used as a default, it may not significantly impact delays, or at worst, could exacerbate delays (at least during the transition in uptake). A</p>	<p>0</p> <p>Unlikely to significantly impact delays/inspection wait times. However, would complement other initiatives to support the use of remote inspections and could reduce the need for additional information/re-inspections.</p>	<p>+ / 0</p> <p>Would provide a strong incentive to seek reductions in wait times/improve efficiency of inspections especially when looked at alongside published data on wait times for comparison (as well as other measures from Option 1 to support improvements).</p>

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
		address other opportunities for minimising delays. Potentially complementary to other regulatory initiatives being considered (such as BCA coordinating/sharing of services/functions or contracting out), though requires coordination across changes to avoid potential sunk costs and efficient transition to any new arrangements.	deterioration could occur if the default is to use remote inspection in cases that, in practice, require more effort and time to inspect remotely than is actually saved.		
2) Efficient building system	+ Should improve understanding and certainty of requirements and processes, potentially reducing re-inspections and/or re-work, and improve productivity/efficiency across building work and inspections through to CCC. Assuming success in this, it will support savings across the build process.	+ Councils retain their discretion on when to use remote inspections, so the use of remote inspections should be targeted where gains are greatest. Any uptake in the use of remote inspections may not reduce consenting time or cost as the time taken to complete a remote inspection to date has been	0 Similar to options 1 and 2 but more confidence nationally that investments will be utilised. However, it will be difficult to specify the appropriate low risk applications where this should be used as the default approach. There is therefore a risk that some BCAs are required to use remote inspections where	0 Unlikely to directly improve productivity, save time or reduce costs during the inspection process through to CCC unless this reduces re-inspections or the time needed for individual inspections to a significant extent.	+ / 0 Seeking councils to keep wait times within KPIs may provide additional incentives to improve efficiency, however current and anticipated wait times suggest that setting KPIs may not result in material improvements in productivity, time, or cost savings.

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
		<p>the same or longer (though this may represent a transitional issue), and there may be some investments/changes in resourcing needed.⁶</p> <p>However, improves flexibility and could support investment in technological solutions that have the potential to support reducing wait times and as a result, improve the efficiency of the building process and system.</p>	<p>they are not suitable, and efficiency reduced through additional time/costs (as has occurred in some examples to date, but noting certain exceptions are allowed for).</p> <p>Beyond where specified as the default approach, there will still be the option to use remote inspection voluntarily where it is not specifically the 'default' approach.</p>		
3) Quality regulation	<p>+</p> <p>Updating guidance and providing training will provide clarity to inspectors and builders, and standardising inspection conventions will provide clarity and consistency</p>	<p>0</p> <p>Requiring BCAs to have the systems and capability to conduct remote inspections should induce training and further understanding of the remote inspection process. However, the case for using</p>	<p>- / 0</p> <p>Adds moderate complexity to the Building Act. There may be confusion between various parties over the types of inspections required to be conducted remotely by default. However, if the</p>	<p>+ / 0</p> <p>Adds clarity to the Building Act by implementing regulation to prevent deceptive behaviour. Would require determining the scope of offence and potentially guidance on its</p>	<p>+</p> <p>Setting KPIs will provide clarity and consistency regarding the intended maximum wait times for builders, allowing them to plan ahead with confidence. This could be done via non-</p>

⁶ If this requires investments by BCAs that subsequently merge or outsource functions (as may be further supported by other regulatory initiatives), there is a risk of introducing an unnecessary cost for those cases.

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
	across the sector. Further, identifying and addressing any known issues is consistent with continual improvement.	remote inspections or gaps in their uptake does not clearly imply a need for regulatory intervention or going beyond Option 1.	requirements are targeted to where there are clear opportunities for reducing delays by using remote inspections that are not currently being taken up, then this would be more positive.	application. It is generally not considered best practice to regulate where practical use is considered challenging, though even as a signalling tool it may have value.	regulatory means, allowing for ease of update but we understand the regulatory changes provides a stronger signal. Together with Option 1, should support the means to achieve the intended performance.
4) Responsive settings	<p>++</p> <p>Updating the guidance and providing training would support continual improvement by BCAs and builders.</p> <p>The guidance itself could also be responsive to adjustments and improvements over time.</p> <p>Monitoring and publishing wait times as well as identifying and addressing common reasons for inspection failure would facilitate feedback loops and support continual improvement across the sector.</p>	<p>+</p> <p>Improves flexibility of the inspection process, particularly for BCAs that do not currently have the systems or capability to conduct remote inspections. Could be designed to allow for ongoing technology change and implemented to manage resourcing risks.</p>	<p>-</p> <p>Will limit BCAs' discretion in using remote inspections (the extent of which depends on what applications remote inspection is to be the default for), reducing their flexibility.</p> <p>Could slow/limit BCAs' responsiveness to new information about risks in terms of where and when remote inspections are used. Continual improvement in this area may be more reliant on changes to when remote inspections are required to be used (although any increase in</p>	<p>0</p> <p>No change.</p>	<p>+ / 0</p> <p>Setting KPIs for inspection wait times may drive continual improvement and incentivise BCAs to reduce inspection wait times.</p>

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
			application may also be associated with increased voluntary use outside where it is specifically required).		
5) Risk	<p>+</p> <p>The non-regulatory measures should support builders to improve their management of risk by addressing reasons for inspection failures. No change to risk allocation.</p>	<p>- / 0</p> <p>Any resulting increase in remote inspection could risk greater non-detection of non-compliant work if the targeting of use and application are not effective. For a 0 score, BCAs discretion needs to be sufficient to mitigate this risk. If not appropriate, then a - score is warranted.</p>	<p>-</p> <p>Depending on where remote inspections are required (and how they are applied), this could limit the ability for BCAs to identify and proactively address matters that could become issues at later stages of the build. As a result, this could increase the risk of need for re-work post construction to rectify defects not picked up during inspections if BCAs do not retain discretion.</p>	<p>+ / 0</p> <p>Aims to mitigate risk by deterring deceptive behaviour, however instances of builders intentionally deceiving inspectors may be rare (though there could be scope for this to increase with an increased use of remote inspections).</p>	<p>- / 0</p> <p>May create perverse incentives by overly focusing on the KPI (rather than optimal decisions for particular circumstances). However, the intended regulatory approach should reduce this risk (e.g., allowance for exceeding targets a portion of the time, but needing to have systems intended to meet the targets).</p>
6) Practical	<p>0</p> <p>Updating guidance and providing training will involve some MBIE resources and costs to builders/BCAs associated with inputting on material,</p>	<p>-</p> <p>BCAs will incur additional implementation costs (IT, software, training and developing policies and procedures). However, some BCAs may be able to recover</p>	<p>-</p> <p>There may be practicality issues in terms of identifying and designing the default situations that should be targeted for requiring remote inspections, as well</p>	<p>-</p> <p>BCAs may face practicality challenges in proving intent and could be unable to recover the costs associated with investigating and prosecuting offenses. However, even if seldom</p>	<p>- / 0</p> <p>Establishing achievable KPIs without creating perverse incentives may be a challenge (as discussed under "risk"), though the envisaged approach mitigates this somewhat as</p>

	Option 1: Non-regulatory measures	Option 2: Require building consent authorities to have the systems and capability to conduct remote inspections	Option 3: Require building consent authorities to use remote inspections as the default approach to conducting inspections	Option 4: Establish new offence to deter deceptive behaviour	Option 5: Set KPIs for inspection wait times
	<p>and considering it and its application.</p> <p>Monitoring and publishing wait times may lead to some additional compliance costs for BCAs due to the effort required to collate the data.</p> <p>However, the option is feasible and practical and should support efficiencies.</p>	<p>investment costs through efficiency gains over time.</p> <p>The option is feasible and practical, while efficiency will depend on the extent to which investments are required that end up having little use.</p>	<p>as in implementation and compliance.</p> <p>Some BCAs may incur additional implementation costs (IT, software, training and developing policies and procedures). However, some BCAs may recover some investment costs through efficiency gains over time.</p>	<p>used, the threat of a penalty itself may improve compliance.</p>	<p>described further in the detail below.</p> <p>BCAs may also incur additional costs to implement measures to achieve KPIs.</p> <p>The option is feasible and practical and should support efficient practices unless it results in BCAs overly focusing on the KPI at the expense of opportunities that would support greater efficiency (e.g. not undertaking operational trials that may risk the KPI but could lead to future improvements, or actions that introduce wait time across a number of projects that might not otherwise be experienced to ensure that marginal cases that may risk the KPI do not exceed the wait time threshold).</p>
Overall assessment	5.5	1.5	-3	1.5	0.5

Key to assessment:

- ++ Much better than doing nothing/the status quo/counterfactual
- + Better than doing nothing/the status quo/counterfactual
- 0 About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing/the status quo/counterfactual

4.4.2 Preferred option(s) for inspections

Having assessed options 1 to 5 individually, given several options could be used in combination, we suggest modelling a package of options as the preferred approach for the CBA. We suggest that Option 3, being the most prescriptive, should not be modelled in the package of options as it scores significantly lower than the others in the MCA. Its risks and practicality challenges appear to outweigh the potential efficiency gains, which remain largely uncertain at this stage. The table below outlines the potential implications of various option combinations based on the MCA criteria.

Table 7: MCA of potential package of inspection options

	Comments on preferred package of options
1) Strategic fit	Options 1 and 5 are complementary, particularly the links between publishing and monitoring wait times and setting KPIs for inspection wait times. Option 2 may be too prescriptive at this stage (particularly where options to make it easier for BCA consolidation or outsourcing are being considered), while Option 4 could also be included as part of a package with minimal risk.
2) Efficient building system	There is a risk that Option 2 results in inefficient investment if there is not a sufficient increase in uptake of remote inspections (or later consolidation across BCAs). The required additional investment with Option 2 increases potential sunk costs. There is little differentiation in other packages of options based on this criterion.
3) Quality regulation	It is unclear whether any unmet opportunity associated with the use of remote inspection necessitates moving beyond Option 1 to achieve the same or similar outcomes as Option 2. Including Option 5 together with Option 1 would improve the overall rating for this criterion, as it would provide avenues to support improvements in order to meet the minimum regulatory standards for wait times. Potentially, Option 4 may do the same by ensuring that any risks from the provisions of misinformation when implementing new initiatives are heavily disincentivised.
4) Responsive settings	It is unclear whether Option 2 would result in sufficient improvement to justify the additional investment relative to Option 1. Including Option 5 together with Option 1 would marginally improve the overall rating for this criterion.
5) Risk	There is no material change across combinations involving options 1, 2, 4 and 5. However, while the potential risks identified for options 2 and 5 are not completely ameliorated simply by combining with other options, inclusion together with Option 1 would support the mechanisms being available to realise potential gains from using remote inspections, and to make any other improvements to support reductions in wait times.
6) Practical	Option 2 is regulatory, whereas Option 1 involves non-regulatory measures. It remains unclear whether the additional benefits of Option 2

justify its implementation, given its lower practicality compared to the other options. Option 4 could be included as part of a package as well, though it would require legislative change and the evidential basis may be a challenge (however the change itself may signal intent and incentivise changes in behaviour). Option 5 would introduce some potential risks in relation to efficiency (depending on incentives and KPI targets as noted under "Risk" earlier) and potential practicality challenges (for the same reason), but is certainly feasible. Option 1 would complement option 5 in supporting mechanisms for improvements while option 5 may provide added incentives to maintain wait times.
--

While Option 2 may offer an improvement over the counterfactual, there are several risks, and it is uncertain whether it justifies investment at this stage. However, a package excluding Option 2 would allow for its implementation in future if needed, potentially when BCAs have had time to transition to other measures.

We propose modelling a package of options in the CBA comprising of options 1 and 5, given that adding Option 4 to the package may be difficult to justify considering the potential practicality difficulties in employing any additional offence, as well as on the basis that MBIE asked us to focus our CBA on this package upon reviewing a draft of our MCA analysis in relation to inspections.

5. CBA framework of options short-list

This section sets out the CBA framework that we have applied. This was developed drawing on the theory of change, focusing on the expected policy impacts and who they affect. We indicate which impacts are quantified and the modelling approach we have taken for the short-listed options. The following section provides the results of this analysis.

5.1 Cost and benefit categories

The quantified cost and benefit categories are separated for self-certification and inspections. The costs and benefits for self-certification are summarised in Table 8, and those for inspections are shown in Table 9.

Table 8: Quantified costs and benefits for self-certification

Impact	Description	Stakeholder affected
Costs		
Regulatory implementation	MBIE's one-off costs to establish and implement the proposed amendments. These are the costs to make the legislation and regulations. Note that the scheme's set-up costs are quantified under scheme administration. The PGD Board will incur costs to implement and amend gazette notices.	MBIE, PGD Board
Self-certification scheme administration	<p>The costs to the PGD Board to administer the self-certification scheme for plumbers, drainlayers, and self-certifiers of entire builds, including costs for:</p> <ul style="list-style-type: none"> • set up: one-off costs to implement databases • audits: desktop audits for Option 1 and detailed audits every two years for Option 2 • registration: costs to administer competency checks and costs to process registrations for all self-certifying professionals • renewals: annual renewals of all self-certifying professionals (Option 1 only) • investigation and prosecution costs • other operating costs including personnel costs, professional services, information technology, consultation, and other administration costs. <p>These costs will likely be cost recovered from self-certifiers.</p>	PGD Board Scheme participants

Impact	Description	Stakeholder affected
Compliance costs for self-certifiers	The costs to comply with the scheme requirements. These costs are related to the time taken to prepare a registration, renewals, and time taken for audits (Option 2 only). ⁷	Scheme participants
Constructions costs brought forward	Construction where entire builds are self-certified will begin earlier because of the avoided time delays associated with addressing RFI subline items. As a result, the construction costs associated with these dwellings will be brought forward.	Homeowners
Benefits		
Faster construction completion from avoided inspections	Construction where self-certification is used will be completed more quickly because of the reduced time delays. ⁸ This benefits self-certifiers by enabling them to complete more projects, as well as homeowners and developers, who receive a completed home earlier.	All self-certifiers, homeowners
Faster construction completion from avoided RFIs	Construction where entire builds are self-certified will begin, and therefore finish, earlier because of the avoided time delays associated with addressing RFI subline items. As for faster construction completion above, these benefits will accrue to the self-certifiers and homeowners. Note that it applies to Option 2 only.	All self-certifiers, homeowners

The table does not show non-quantified costs and benefits, which we set out below. We do not quantify these costs because of low materiality and/or poor data availability.

Non-quantified costs

- Potential cost of increased defects from reduced oversight:** the impact (if any) on construction defects is uncertain. Reduced oversight increases the risk of defects, as fewer external checks could lead to quality issues. However, self-certifying plumbers and drainlayers, and firms who self-certify, would be required to meet high competency standards and will have a clear line of accountability and liability for their work therefore incentivising quality (though as noted in the MCA, there may also be incentives not to flag issues for commercial or time pressure reasons).

While reduced oversight poses a risk, there would be safeguarding mechanisms to mitigate this risk. For example, self-certification would be limited to those with a proven strong track record, while regular auditing and the ability to self-certify would incentivise getting work

⁷ Fees paid by self-certifying professionals are not included here because they represent a transfer to the self-certification scheme administrator for its administrative duties. These administrative duties are captured under self-certification scheme administration.

⁸ It is assumed that one average costs associated with self-certifiers being able to support these reductions is minimal and included in their costs associated with registration and audit (e.g. there is some cost savings from information sharing being simpler from internalizing and that any improvements in systems is captured as part of these compliance costs and those that would need to invest more may be less likely to self-certify).

correct. See Appendix E for analysis on the maximum allowable increase in defects that could occur that retains a positive net present value (NPV) in both options.

Non-quantified benefits

- **Potential quality improvement from better workmanship:** to the extent that the self-certification schemes incentivise better quality construction work (via competency standards, potentially more liability, and a stronger incentive to get the work right the first time), there will be an economic benefit. For example, the quality incentive may result in higher quality builds, which would benefit building owners through safer and longer lasting structure, as well as through reduced costs associated with remedying defects. However, the reduced external oversight and potential incentives to cover over issues or minimise costs or delays could also reduce quality. As noted for the potential cost of increased defects, the net effect of these two counteracting incentives is uncertain.
- **The avoided cost of inspections for BCAs:** BCAs will no longer have to conduct some inspections, representing a cost saving. However, self-certifiers would incur costs to inspect before issuing self-certification, i.e. the cost of conducting inspections is transferred from BCAs to self-certifiers. To the extent that self-certifiers can inspect work more cost-effectively than BCAs, there would be a benefit to New Zealand. In light of this uncertainty, we assume that the net impact of these two effects (BCA cost saving and self-certifier additional cost to conduct inspection) is zero.

Table 9: Quantified costs and benefits for inspections

Impact	Description	Stakeholder affected
Costs		
Regulatory implementation	Costs to implement the proposed amendment to the BCA accreditation implementation for the KPIs.	MBIE
Non-regulatory implementation	Costs to action the non-legislative changes, including to: <ul style="list-style-type: none"> • update guidance • collect and publish wait times, including IT set up costs to enable BCAs to report on wait times • standardise inspection convention • address common causes of failure • develop training. 	MBIE, BCAs
Compliance costs	Costs relating to the increased resourcing required for BCAs to comply with the KPIs, although we acknowledge that some BCAs may adopt alternative measures (such as more risk-based inspection approaches or greater use of remote tools) to meet the requirements.	BCAs
Benefits		
Faster construction completion	Construction will be completed more quickly because of increased inspection capacity (through increased hiring of BCOs).	Builders and contractors, homeowners

The table does not show non-quantified costs and benefits. We do not quantify these costs because of low materiality and/or poor data availability.

Non-quantified costs

- **Costs associated with BCAs that choose to meet the standardised inspection conventions:** these costs are uncertain, temporary, and may be minimal, as some BCAs already have efficient systems in place that may be very similar to any standards that may be developed. Any costs incurred would largely be one-off in nature and decline over time as systems adapt and efficiency improves. Given the uncertainty and limited long-term impact, we do not quantify these costs in the CBA.
- Costs associated with perverse incentives that BCAs may adopt to meet the wait times because of KPIs: these could include:
 - reduced flexibility in accommodating urgent inspection requests
 - limiting or eliminating block booking
 - restricting advanced booking to manage workloads and to maintain a steady pipeline of inspections.

Non-quantified benefits

- **Benefits from the increased uptake of remote inspections:** while implementing training and updating guidance on remote inspections will increase the ease of remote inspection uptake, it is uncertain the extent to which changes themselves could impact uptake or benefits from use of remote inspections. Additionally, it is unclear whether increased uptake of remote inspections will result in cost savings.
- **BCAs' efficiency gains from better guidance, training and inspection convention standardisation:** for example, standardisation could enable more inspections to be processed in a given time period, freeing up time to be spent on other activities. However, these benefits are challenging to quantify due to regional differences in BCA activities, processes, and consequent costs. Additionally, external factors such as fluctuating demand for inspections, can influence the extent of efficiency gains, making measurement difficult.

5.2 Modelling approach

Our CBA model evaluates the costs and benefits of the proposed options following the New Zealand Treasury's guidelines for conducting cost-benefit analyses (New Zealand Treasury, 2015). Alongside this report, we have developed a detailed CBA model to support our assessments. Each option is assessed relative to the counterfactual, i.e. the analysis compares the incremental costs and benefits of the proposed changes against a scenario where no intervention occurs. All figures are expressed as net changes in dollar terms, representing the additional costs or savings, as well as other benefits, relative to the counterfactual scenario. The core parameters underlying our analysis are stated in Appendix B.

Figure 5: High level summary of self-certification method

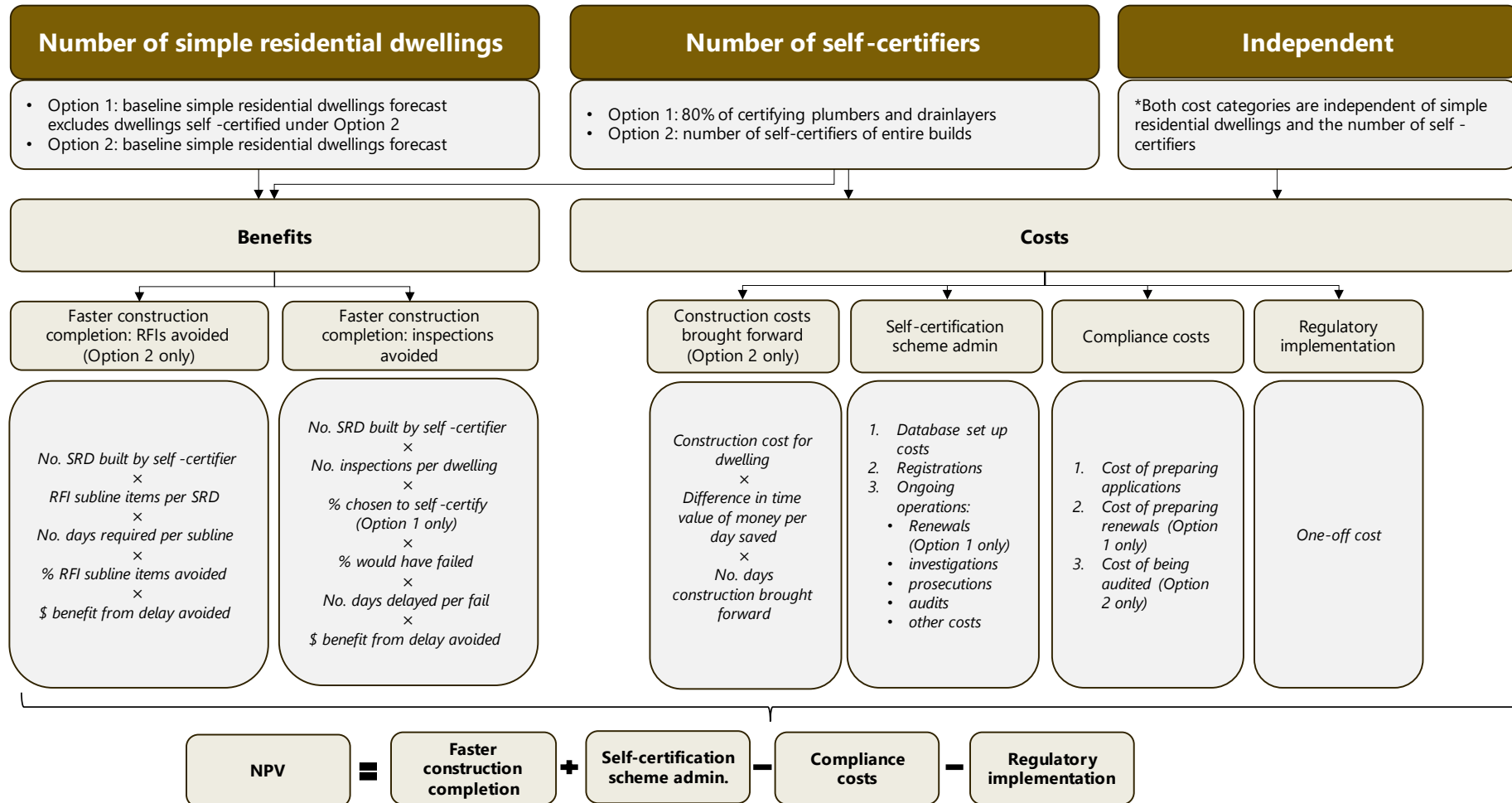
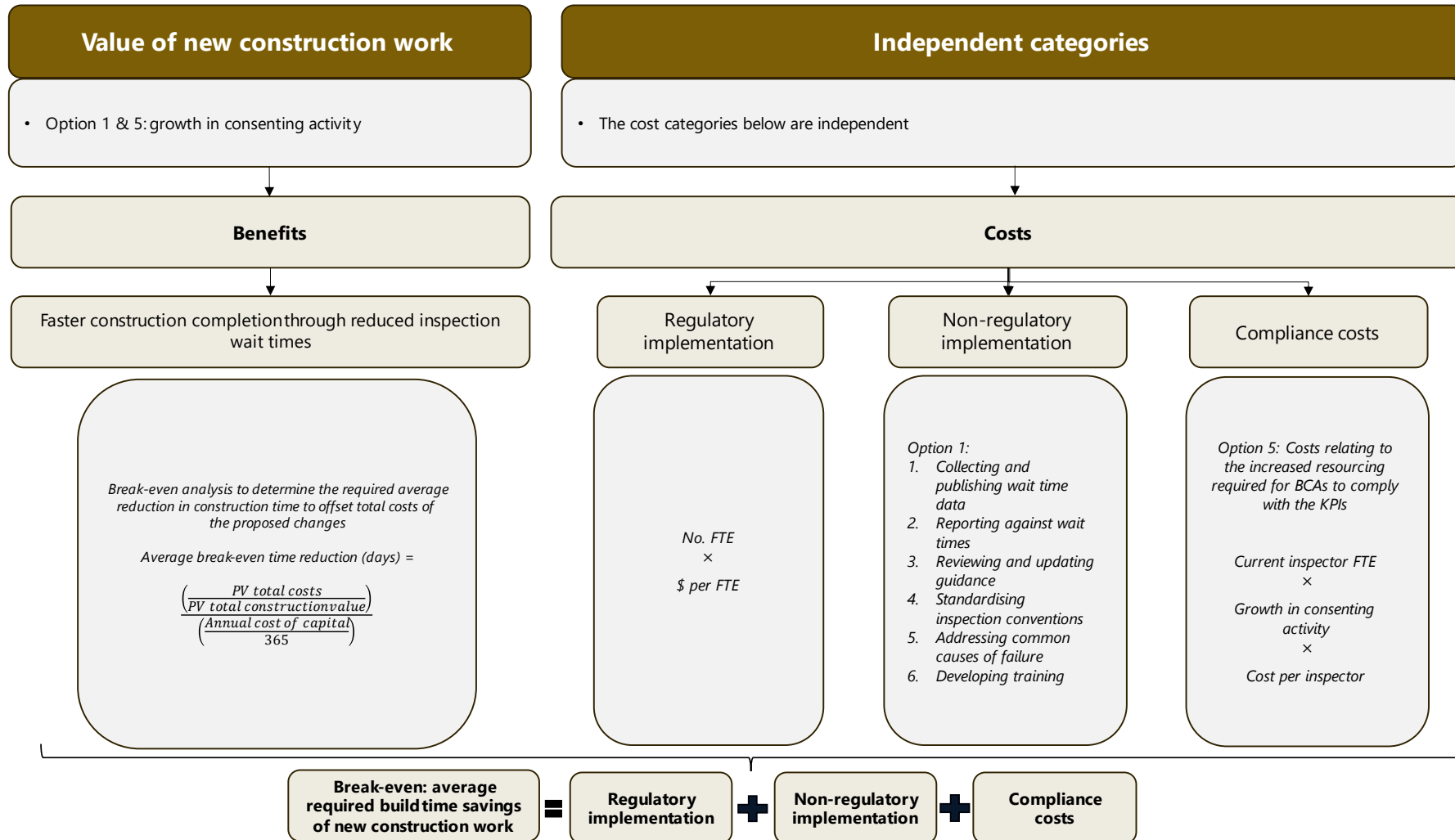


Figure 6: High level summary of inspections method



5.3 Quantification of costs and benefits for self-certification

Cost and benefit estimates have been calculated based on data provided from MBIE, submissions, the best available data found through desktop research, and targeted input from a select group of stakeholders. Detailed assumptions are listed in Appendix B. We note that “self-certifying professionals” refers to plumbers and drainlayers that can self-certify under Option 1.

5.3.1 Volume estimates for self-certification

The volume of simple residential dwellings built and the volume of self-certifiers are core drivers of impacts. This subsection describes our estimates of both.

Forecast of the number of simple residential dwellings built

The forecasted number of simple residential dwellings built is a core driver of benefits. It is the baseline for the avoided inspections and for faster construction completion.

The forecast is based on the simple residential dwelling definition of:

- detached dwellings
- single storey
- designed to common standards with an E2/AS1 risk matrix score of six or less.

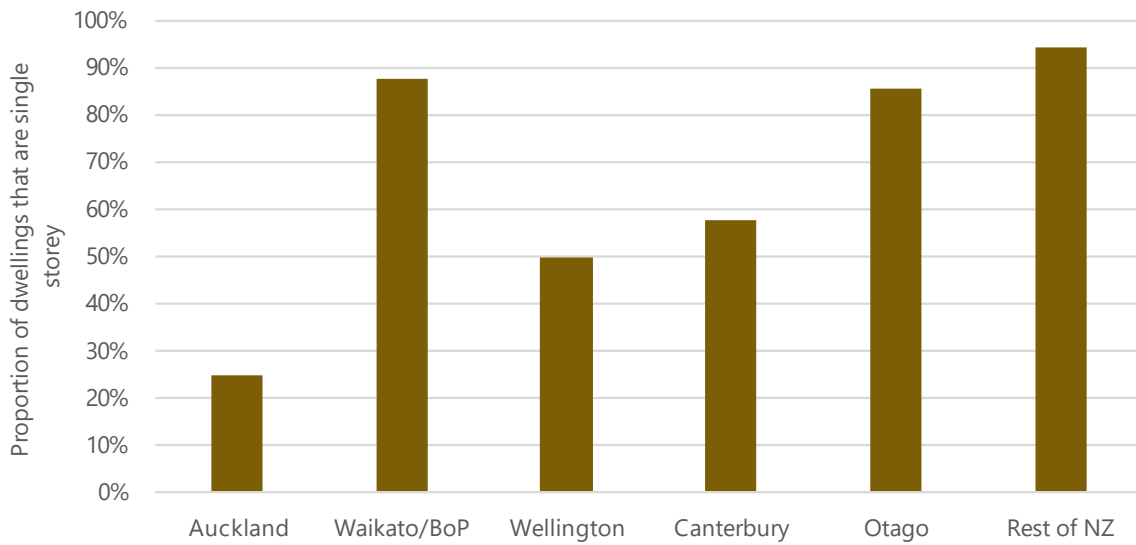
MBIE’s national construction pipeline report for 2024 provides a forecast of detached residential dwelling consents for five regions—Auckland, Waikato/Bay of Plenty, Wellington, Canterbury, Otago, as well as the rest of New Zealand—through to 2029 (MBIE, 2024e). For the years beyond 2029, we assumed each region’s growth from 2028 to 2029 continues.

We next adjusted this forecast for the proportion of buildings that are single storey. BRANZ (2025a; 2025b) reports data on the share of houses that are single storey across 30 TAs for 2021 and 2022. These TAs were mapped to the five regions in MBIE’s national construction pipeline report.

For each region, we calculated a weighted average proportion of single storey houses based on the BRANZ data. The weighting was determined using the number of building consents issued in each year, sourced from Statistics NZ.

Figure 7 presents the weighted averages of detached residential dwellings that are single storey. Unsurprisingly, regions with lower density populations have higher proportions of single storey buildings.

Figure 7: Proportion of residential dwellings that are single storey

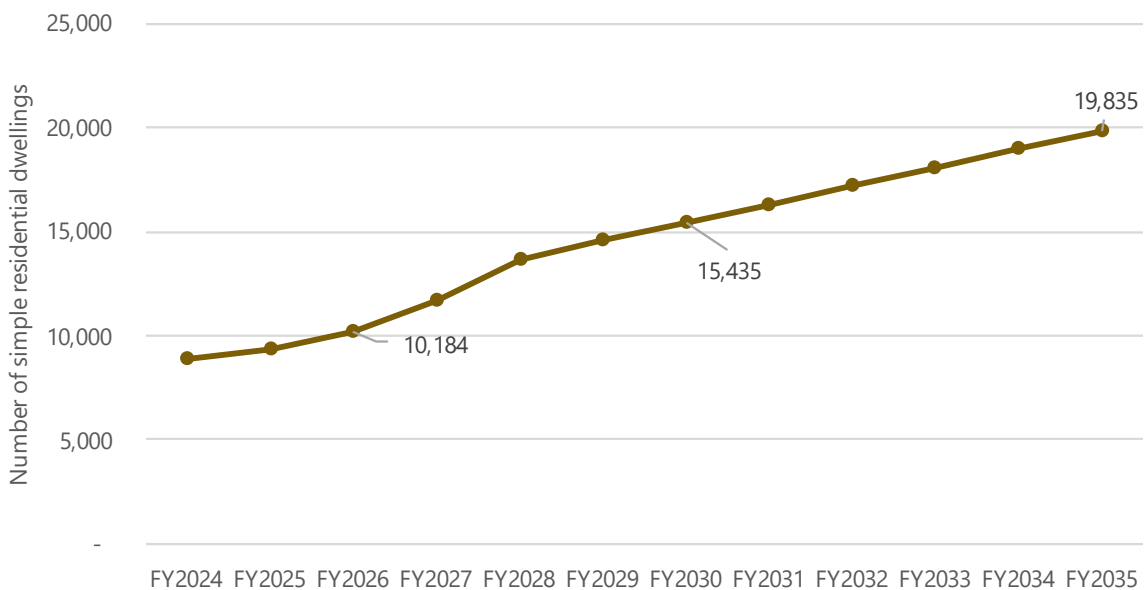


The weightings were applied to the forecast for detached residential dwellings in each region, resulting in a regional forecast of detached residential dwellings that are single storey.

We investigated an adjustment to ensure we only capture low-risk buildings that would be in scope. BRANZ (2011) reports that the average single storey house has an E2 risk rating of 3.0, with two storey buildings having an average rating of 7.6. This observation suggests that most single storey buildings have a risk rating of six or less. As a result, we assume that all detached single storey residential dwellings are in scope.

The estimated forecast of simple residential dwellings is shown in Figure 8.

Figure 8: Forecast of simple residential dwellings



Forecast of self-certifying professionals (Option 1)

To forecast the number of self-certifying professionals, we first forecast the baseline number of professionals. The forecast was done for plumbers and drainlayers separately.

We examined the number of plumbers and drainlayers from the PGD Board’s annual reports. These were observed for FY2020 to FY2024. Years after FY2024 were estimated using the average growth (in professional numbers) of plumbers and drainlayers over the five years.

Once the baseline was forecast, we estimated the number of self-certifying professionals. Self-certifying professionals are assumed to be 80 per cent of total *certifying* plumbers and *certifying* drainlayers, i.e., we assume 80 per cent opt in to the scheme. This assumption is based on the following:

- Certifying plumbers and drainlayers already meet a high competency standard.
- Some certifying plumbers and drainlayers are also certifying gasfitters, who can self-certify gasfitting work, meaning that they are familiar with self-certification.
- While not all certifying plumbers would opt in to self-certification, some non-certifying plumbers would be incentivised to upskill. We assume that the net effect is equal to 80 per cent opting in.

The FY2024 proportion of certifying plumbers and certifying drainlayers was held constant and applied to the baseline forecast estimated above. We tested this proportion in the sensitivity analysis.

Figure 9 shows this forecast for plumbers. Following the self-certification scheme’s implementation in FY2026, the first group of self-certifying plumbers enters the scheme in in FY2027. Plumbers will be phased into the scheme proportionately over three years (i.e. one third in each year) through to FY2029. In the years following, the profession’s annual growth rate is assumed.

Figure 9: Self-certifying plumbers forecast

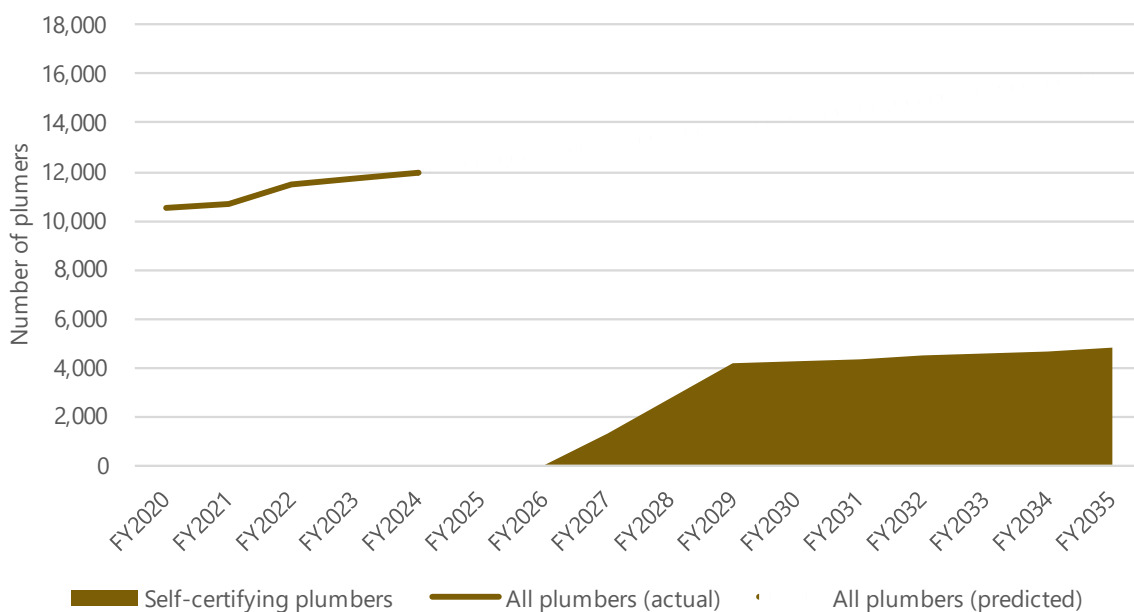
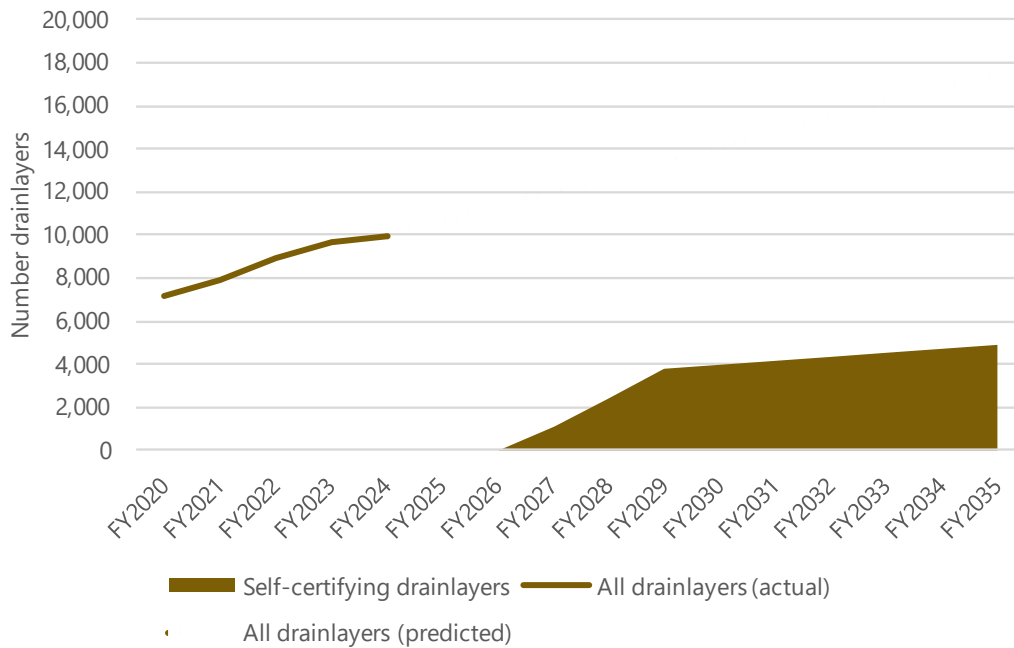


Figure 10 shows the drainlayers forecast. As above, three years of equally proportionate phasing into the scheme is assumed. However, compared to plumbers, drainlayers’ high growth rate over the five prior years of actual data means the forecast growth rate is comparatively higher. As a result, the forecasted number of drainlayers in the scheme grows at a faster rate than the forecasted number of plumbers.

Figure 10: Self-certifying drainlayers forecast



Forecast of self-certifiers of entire builds (Option 2)

Self-certifiers of entire builds are estimated for volume builders. We would not expect a material number of smaller building firms to become self-certified due to the expected licensing requirements and associated compliance costs. That is, building at scale would be required to make self-certification economically viable, so we conservatively based our assumptions focused on this group.

The Registered Master Builders Association of New Zealand (Master Builders) is a leading industry body for builders in New Zealand that has been advocating for self-certification of entire builds. As a representative of its members, the organisation's agenda should align with their interests. This suggests that some members would likely adopt a self-certification scheme if implemented.

Following a literature scan, we identified 14 volume builders that are Master Builders members.⁹ Of these 14, nine are *franchisors* operating *franchisees* under them (or have adopted a branch model similar to a franchise model), and five are non-franchised.

⁹ These include: GJ Gardiner, Jennian Homes, Fletcher Residential, Mike Greer Homes, Golden Homes, Oakridge Homes Ltd, Venture Developments Ltd, Latitude Homes, Today Homes, Generation Homes, Barrett Homes Ltd, Trident Homes, EasyBuild Homes, and Sentinel Homes.

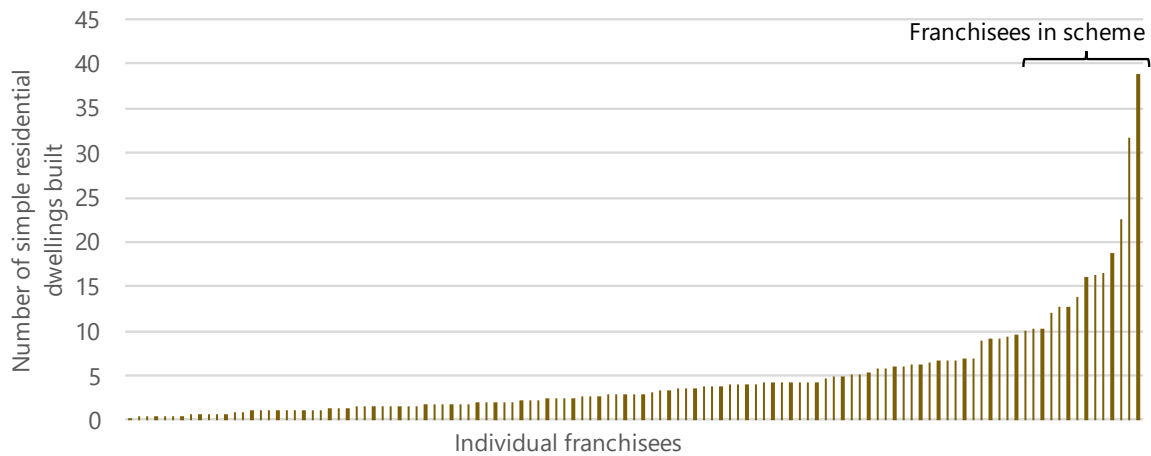
We estimated the number of simple residential dwellings built by each franchisee using the following method:

1. **Identify franchisor's franchisees and locations:** each franchisor's franchisees (117 in total) were identified along with their locations. These were identified from each franchisor's website.
2. **Map franchisees to consenting areas:** each franchisee was mapped to the appropriate Statistics NZ region, district, or Auckland local board.
3. **Allocate total franchisor builds to franchisees:** each franchisee was allocated a proportion of the franchisor's homes (sourced from Gibson (2024)), based on how many residential consents were issued in the respective area relative to the total for all areas the franchisor operates in. For example:
 - a) Jennian Homes operates in 21 locations throughout New Zealand and built 230 homes in the year ending March 2024.
 - b) The 21 locations had a combined total of 29,456 residential consents issued.
 - c) The Hawkes Bay region accounted for 758 of these residential consents.
 - d) Therefore, we estimate that Jennian Homes Hawkes Bay represents 2.6 per cent ($758/29,456$) of the Jennian Homes parent company's 230 homes, equal to six homes.
4. **Group franchisees into the six regions to match the simple residential dwelling regions:** each franchisee's location was then mapped to the regions in our simple residential dwelling data (Auckland, Waikato/Bay of Plenty, Wellington, Canterbury, Otago, and the rest of New Zealand).
5. **Estimate franchisee simple residential builds using each franchisees' total builds:** each franchisee's number of simple residential dwellings built was estimated based on their share of the respective region's builds. Continuing the earlier example:
 - a) Hawke's Bay comes under the rest of New Zealand region. The rest of New Zealand had a total of 4,845 residential consents for the period.
 - b) Jennian Homes Hawke's Bay represented 0.12 per cent ($6/4,845$) of the rest of New Zealand's residential consents.
 - c) Therefore, Jennian Homes Hawke's Bay is estimated to have built 0.12 per cent of the rest of New Zealand's 2,588 simple residential dwellings in 2024, equal to three simple residential dwellings.

The key limitation of this method is that it does not account for variations between franchisees in their likelihood to build simple residential dwellings compared to the New Zealand average. That is, we cannot determine each franchisee's propensity to construct a simple residential dwelling. This limitation is discussed further in section 7.2.

The result is an estimated distribution of franchisees and their respective number of simple residential dwellings built, shown in Figure 11. We assume that franchisees estimated to be building 10 or more simple residential dwellings per year will participate in the scheme (equal to 14 franchisees). As noted earlier, the logic is that franchisees would need to produce at a scale sufficient to warrant the increased compliance costs associated with the scheme.

Figure 11: Distribution of simple residential dwellings built by franchisees



For the five non-franchised firms, we applied a similar method to the franchised firms. However, the lack of franchisees means step three results in high allocations to each non-franchised firm, and step five results in a high number of simple residential dwellings per firm. The assumption of needing to build 10 or more simple residential dwellings is not appropriate.

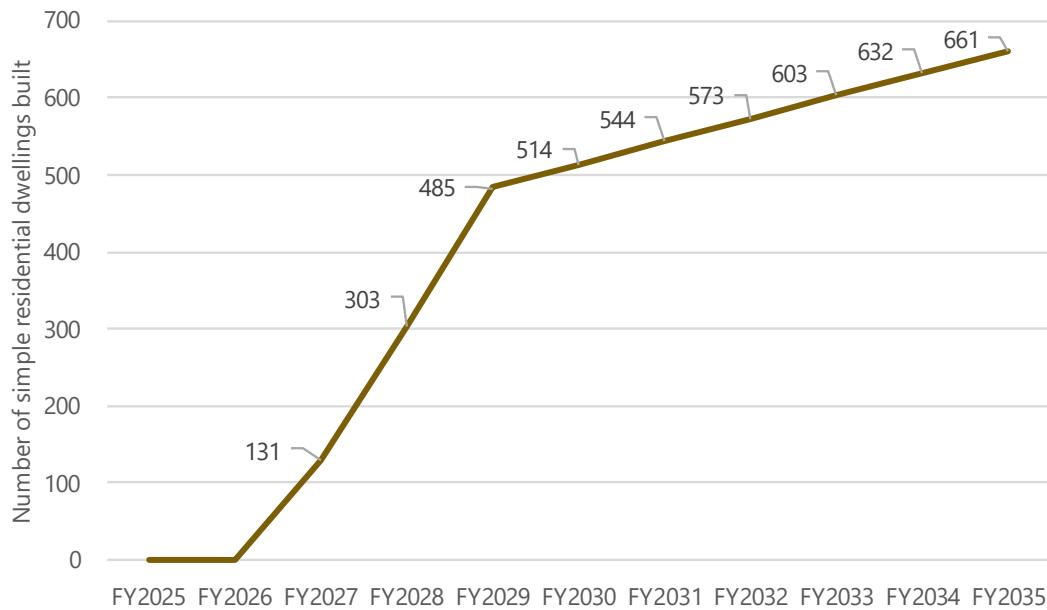
The total sum of non-franchised firms' simple residential dwellings built is 306. We assume that half of these simple residential dwellings (158) would be self-certified.

The final step was to estimate the equivalent number of self-certifiers of these self-certified buildings. Franchised firms that are in the scheme will self-certify an average of 17 simple residential dwellings in a year. We estimated there will be approximately nine self-certifiers from non-franchised firms (158/17).

We assume that the 23 (14 plus nine) self-certifiers will join evenly over three years from FY2027, i.e. one third in each of FY2027, FY2028, and FY2029. This is a Sapere assumption based on previous experience assuming simple phasing with some parties wishing to lead, and others wanting to be fast-followers and develop their own systems first.

The resulting simple residential dwellings by these self-certifiers are presented in Figure 12. Self-certified buildings begin in FY2027 when the first self-certifiers join. In FY2029, a steady state is reached after all initially estimated self-certifiers have opted into the scheme. In the years following, the growth rate is proportional to the growth in overall simple residential dwellings.

Figure 12: Forecast of simple residential dwellings built by self-certifier of entire builds



5.3.2 Costs methodology for self-certification

As shown in section 5, there are four quantified cost categories—implementation costs, self-certification scheme administration costs, compliance costs, and constructions costs brought forward. This subsection summarises the methodologies for each and describes the high-level parameters and underlying assumptions. A detailed list of parameters and respective sources is provided in Appendix B.

Where possible, we use bottom-up costings, i.e. using actual expenditure lines from financial statements. Where this data is not available (or details available to allocate expenditure items are not available), we use top-down revenue charges, e.g., fees charged to professionals. This choice is based on expenditure better reflecting the economic cost of an activity. For example, in FY2024, the PGD Board collected approximately \$2.2 million from its disciplinary and prosecution levy but only spent approximately \$0.4 million on complaints, discipline, and prosecutions (PGD Board, 2024).

Regulatory implementation

Implementation costs are stated in MBIE’s briefing for fiscal sustainability options for the building and construction portfolio (MBIE, 2023). We assume half of these costs are attributed to self-certification (\$250,000), with this allocated to Option 1 and Option 2 equally (\$125,000 each).

The document prescribes six months for a policy decision and 12 to 18 months for the amendments. We allocate \$62,500 each year for FY2025 and FY2026, i.e. the \$125,000 each being split evenly across years.

Self-certification scheme administration costs

Self-certification scheme administration costs are composed of costs for set up, registration, renewals, complaints and discipline, and other operating costs.

Set up (Option 1)

We assume a one-off cost of \$1,500,000 to set up a PGDB database for Compliance Certificates.

Set up (Option 2)

We assume a one-off cost of \$600,000 to add a new register to Te Pae, a new online portal.

Registration (Option 1)

Registration costs are borne by the PGD Board and associated with the resources required to administer the scheme's entry requirements and to process the schemes registrations. Entry requirements costs are estimated as follows:

$$\text{Entry requirements}_{pt} = \text{No. of applications}_{pt} \times \text{Cost of entry requirement}_p$$

- *Entry requirements_{pt}* is the cost to the PGD Board of checking entry requirements for each profession (*p*) in each year (*t*).
- *No. of applications_{pt}* is the number of applications received from each profession (*p*) in each year (*t*).
- *Cost of entry requirement_p* is the cost to the PGD Board to administer each entry assessment for each profession (*p*).

Registration processing costs are estimated as follows:

$$\text{Registration processing}_{pt} = \text{No. of registrations}_{pt} \times \text{Registration fee}_p$$

- *Registration processing_{pt}* is the cost to the PGD Board to process registrations for each profession (*p*) in each year (*t*).
- *No. of registrations_{pt}* is the number of registrations for each profession (*p*) in each year (*t*). It is equal to the number of applications for the same respective profession in each year.
- *Registration fee_p* is the cost per registration to the PGD Board for each profession (*p*).

Registration (Option 2)

Registration costs are the costs for MBIE to process the applications of scheme participants, as well as competency checks carried about by a third-party certification body. Total registration costs are estimated as follows:

$$\begin{aligned} \text{Cost of registrations}_t & \\ &= (\text{No. applications}_t \times \text{Cost per application}) \\ &+ (\text{Days per assessor} \times \text{Cost per assessor}) \end{aligned}$$

- *No. applications_t* is the number of applications to the scheme each year (*t*).
- *Cost per application* is the cost for MBIE to process each application.
- *Days per assessor* is the number of days required per assessor to complete competency checks, including an initial office assessment and witnessing.
- *Cost per assessor* is the cost per assessor per day.

Ongoing operations (Option 1)

Ongoing operations includes the scheme administrator's operating expenses not covered by the previous cost categories. These categories are based on the PGD Board's annual report operating costs. Only the cost categories that are expected to scale with an increased workload were chosen. These cost categories include:

- renewal costs
- investigation costs
- prosecution costs
- audit costs
- other costs, including personnel costs, professional services, information technology, communications and industry consultation, and other administrative expenses.

The cost categories excluded are those that would not be expected to increase with the increased workload.

This equation can be simplified as follows:

$$\begin{aligned} \text{Ongoing operations}_{pt} \\ = \text{No. professionals}_{pt} \times (\text{Renewal costs} + \text{Investigation costs} + \text{Prosecution costs} \\ + \text{Audit costs} + \text{Other costs}) \end{aligned}$$

- *No. professionals_{pt}* is the cumulative number of professionals (plumbers and drainlayers) in the scheme in each year (*t*).
- *Renewal costs* are the costs charged per renewal by the PGD Board for each profession.
- *Investigation costs* are the total cost of investigating complaints for each profession (*p*) in each year (*t*) multiplied by the probability that a professional generates an investigation.
- *Prosecution costs* are the cost per prosecution for each professional multiplied by the probability of a professional being prosecuted. The costs are estimated as prosecutions expenditure in FY2024 divided by the number of prosecutions in the year. The probability is based on the five-year average of the number of prosecutions divided by the number of professionals.
- *Audit costs* are the administrative costs to MBIE associated with the auditing self-certifiers. These are expected to be desktop audits.
- *Other costs* include those listed above for the respective cost categories. For example, personnel costs in FY2024 of \$2.5 million can be divided by 28,845 registrations in the year to estimate approximately \$90 per professional. This \$90 per professional is applied to the forecasted number of PGD self-certifiers in each year. The basis for this calculation is that we would expect personnel costs to approximately scale with the number of scheme constituents.¹⁰

¹⁰ A detailed list of the parameters is provided in the appendix.

Ongoing operations (Option 2)

- Ongoing operational costs for Option 2 are mostly estimated the same as Option 1, however we assume audit and other costs are driven by the number of scheme participants, and investigation and prosecution costs are driven by the volume of simple residential dwellings built by self-certifiers of entire builds. We also scale up costs for investigations and prosecutions by factor of 5x to consider the expected increased cost relative to Option 1, due to the fact of Option 2 being a new scheme and because there are a lower volume that costs are being shared across. The differences in estimations of audit costs and other costs are summarised below.

$$\begin{aligned} \text{Ongoing operations}_{pt} &= \text{No. professionals}_{pt} \times (\text{Audit costs} + \text{Other costs}) \\ &+ \text{No. self certifier builds} \times (\text{Investigation costs} + \text{Prosecution costs}) \end{aligned}$$

- *Audit costs* are the administrative costs to MBIE associated with the auditing self-certifiers. For Option 2, we assume each self-certifier is audited every two years.
- *Other costs* for Option 2 are proxied from the cost categories in Option 1 in the base year and are scaled in future year in proportion to the growth in volume of self-certifiers of entire builds.

Compliance costs

Compliance costs are the costs incurred by the self-certifying professionals (Option 1) and self-certifiers (Option 2) to comply with the option's self-certification scheme requirements. These are in three categories: professionals' time spent to prepare applications, professionals' time spent to renew applications, and the costs to provide information and support audits.

Cost of preparing registrations (Option 1)

The cost of professionals preparing registrations is estimated as follows:

$$\begin{aligned} \text{Cost of preparing registration}_{pt} &= \text{No. applications}_{pt} \times \text{Hours to prepare application} \times \text{Cost per hour}_p \end{aligned}$$

- *No. applications_{pt}* is the number of registrations from each profession (*p*) in each year (*t*).
- *Hours to prepare registration* is the time required to prepare a registration. It does not vary by profession or year.
- *Cost per hour_p* is the cost per hour of each profession's (*p*) time, equivalent to their hourly wage.

Cost of preparing registrations (Option 2)

The cost of registration preparation is assumed equal to MBIE's cost to process the application.

Cost of preparing renewals (Option 1)

The cost to professionals for preparing renewals is estimated as follows:

$$\text{Cost of preparing renewals}_{pt} = \text{No. renewals}_{pt} \times \text{Hours to prepare renewals} \times \text{Cost per hour}_p$$

- *No. renewals_{pt}* is equivalent to the cumulative number of professionals (*p*) in the scheme in each year (*t*) (we assume annual renewals are required).
- *Hours to prepare renewals* is the time required to prepare an application. It does not vary by profession or year.
- *Cost per hour_p* is the cost per hour of each profession's (*p*) time, equivalent to their hourly wage.

Audits (Option 1)

Audit costs are the associated with the cost of time required by self-certifiers to be audited every two years. They are estimated as follows:

Cost of audits_t = *No. audits_t* × *No days per audit* × *Persons required per audit* × *Cost per person*

- *Cost of audits_t* are the total costs of being audited each year (*t*).
- *No. audits_t* is the number of audits undertaken every year (see auditing costs in scheme administration above).
- *No. days per audit* is number of days required per audit.
- *Persons required per audit* is the FTE required per audit.
- *Cost per person* is the daily cost of time for the persons required.

Construction costs brought forward

Option 2 will result in RFIs being avoided, meaning construction will begin earlier than it otherwise would have. When construction starts earlier, the associated costs are also incurred earlier. From an economic evaluation perspective, this creates a small additional cost due to the financial costs associated with the earlier spending (or in economics terms, the time value of money), It is estimated as follows:

Construction costs brought forward_t
= *No. of RFI line items_t* × *RFI line items avoided* × *Days delayed per RFI line item*
× *Difference in time value of money*

- *No. of RFI line items_t* is the number of RFI line items each simple residential dwelling is expected to result in with current trends. It is equal to the number of simple residential dwelling consent applications multiplied by the average number of RFI line items produced per application.
- *RFI line items avoided* is the proportion of the RFI line items that are expected to be avoided because of the option.
- *Days delayed per RFI* are the current delays arising from each RFI line item. These delays are now avoided.
- *Difference in time value of money* is the difference in time value of money that occurs from the construction costs being brought forward by one day
- *Difference in time value of money* is the difference in time value of money that occurs from the construction costs for a simple residential dwelling being brought forward by one day.

5.3.3 Benefits methodology for self-certification

There are two quantified benefits categories—faster construction completion from avoided inspections, and faster construction completion from avoided RFIs.

A summary of the differences across options is presented in the table below.

Table 10: Summary of differences across options for self-certification benefits

Benefit	Option 1	Option 2	Reasoning for difference
Faster construction completion from avoided inspections	✓	✓	Difference arises from the extent of use of self-certification and therefore number of inspections avoided.
Faster construction completion from avoided RFIs	×	✓	Only applies to Option 2 because no RFIs are avoided under Option 1.

Faster construction completion from avoided inspections

Both options result in inspections that are avoided. These avoided inspections result in construction being completed faster because previously failed inspections, and some of the delays associated with these, no longer occur.

Faster construction completion benefit accrues to both homeowners and professionals. Building owners benefit from receiving their home finished earlier, and professionals benefit from being able to complete additional work within a set period.

Faster construction completion from avoided inspections_t

$$\begin{aligned}
 &= \text{No. of inspections avoided}_{ot} \times \text{Proportion that would have failed} \\
 &\times \text{Days delayed per failed inspection} \times \text{Adjustment for serious compliance issues} \\
 &\times \$ \text{ of benefit}
 \end{aligned}$$

- *No. of inspections avoided_{ot}* is the number of inspections avoided under each option (o) in each year (t). It is estimated for each option separately:
 - For Option 1, the volume of avoided inspections is estimated as the number of simple residential dwellings constructed in a year that have both plumbing and drainlaying work self-certified, multiplied by the number of plumber and drainlayer inspections per dwelling, and the proportion chosen to self-certify.
 - For Option 2, it is equal to the number of simple residential dwelling built by Option 2's scheme participants multiplied by the total number of inspections required per simple-residential dwelling build.
- *Proportion that would have failed* is the counterfactual failure rate of inspections.

- *Days delayed per failed inspection* is the average number of days a project is delayed per failed inspection.¹¹
- *Adjustment for serious compliance issues* is an adjustment for the delays that are still expected to occur because of self-certifiers detecting and rectifying these issues.
- *\$ of benefit* is the dollar benefit to homeowners or professionals from construction finishing sooner.

We note that while some homeowners do not intend to rent out their home once built, they still receive an economic benefit from living in it sooner. This benefit, called imputed rent, is the amount they would have paid if they were renting a similar property.

Faster construction completion for professionals is estimated using the same variables as faster construction completion for homeowners, however, average rent is substituted out and the dollar benefit to the professional used instead.

In practice, professionals may still charge for their time when they are faced with a delay. However, with reduced delays, they would be able to work on more projects. This additional work is an economic benefit to New Zealand.

Faster construction completion from avoided RFIs

Option 2 will decrease the requirements for a consenting application. As a result, there will be less opportunity for RFIs, implicitly avoiding these RFIs and the delays associated with them. The benefit results in construction starting, and therefore finishing, earlier. The economic impact is construction costs being brought forward (included in costs), but also the benefits being brought forward.

As for faster construction completion from avoided inspections, these benefits accrue to homeowners and professionals. Homeowners receive a benefit equal to the imputed rent value and professionals' benefit from being able to complete more work.

Faster construction completion from avoided RFIs is estimated as follows:

$$\begin{aligned}
 & \text{Faster construction completion from avoided RFIs}_t \\
 &= \text{No. of RFI line items}_t \times \text{RFI line items avoided} \times \text{Days delayed per failed RFI} \\
 & \times \$ \text{ of benefit}
 \end{aligned}$$

- *No. of RFI line items_t* is the number of RFI line items each simple residential dwelling is expected to result in with current trends. It is equal to the number of simple residential dwelling consent applications multiplied by the average number of RFI line items produced per application.

¹¹ This approach assumes that each failed inspection results in a full delay to the project. In practice, some reallocation of labour and resources may occur, either to other parts of the same project or to other jobs entirely. However, the extent to which this occurs, and whether it results in measurable reductions in time or cost elsewhere, is uncertain and difficult to quantify. To the extent that such offsets occur, the modelling may slightly overstate the net impact of inspection delays. That said, this potential overestimation is partially offset by conservative assumptions elsewhere in the modelling and the use of sensitivity testing to explore uncertainty across key parameters.

- *RFI line items avoided* is the proportion of RFI line items that are expected to be avoided because of the option.
- *Days delayed per failed RFI* are the current delays arising from each RFI line item. These delays are now avoided.
- *\$ of benefit* is the dollar benefit to homeowners or professionals from construction finishing sooner.

5.4 Quantification of costs and benefits for inspections

Cost and benefit estimates have been calculated based on data provided from MBIE, submissions and the best available data found through desktop research. Detailed assumptions are listed in Appendix C.

5.4.1 Volume estimates for inspections

Volume estimate for growth in consenting activity

The growth in consenting activity per TA is a core assumption used to estimate compliance costs (i.e., the additional cost of hiring inspectors to keep up with demand) as well as the increase in the value of new building work used to determine the benefits of faster construction completion. Growth in consenting activity is estimated using forecasts from the National Construction Pipeline Report (MBIE, 2024e).

5.4.2 Costs methodology for inspections

As shown in section 5.1, there are three quantified cost categories for inspections—regulatory implementation costs, non-regulatory implementation costs, and compliance costs. This subsection summarises the methodologies for each and describes the high-level parameters and underlying assumptions. A detailed list of parameters and respective sources is provided in Appendix C.

Regulatory implementation

Regulations for the maximum wait time requirement under option 5 are expected to be made by late 2025. MBIE will update its guidance on the BCA accreditation scheme to include guidance for BCAs on how to comply with the new requirement. Regulatory implementation costs are expected to be minimal, requiring around two FTE for two weeks.

Non-regulatory implementation

Non-regulatory implementation costs are attributed to Option 1 and are estimated separately for each non-regulatory component, comprising of costs relating to:

- collecting and publishing wait time data
- reporting against wait times including IT set up costs
- reviewing and updating existing guidance on remote inspections
- standardising inspection conventions

- addressing common causes of failure
- developing training.

Collecting and publishing wait time data

Costs associated with MBIE collecting and publishing wait time data are estimated as follows:

$$\text{Wait time data costs}_t = \text{No. FTE}_t \times (\text{Cost per FTE}_t \times (1 + \text{cost loading}))$$

- *No. FTE_t* is the FTE required in each year (*t*) to collect and publish wait time data.
- *Cost per FTE_t* is the estimated average salary for MBIE employees.
- *Cost loading* is an internal assumption based on previous work and was set at 50 per cent to account for overheads and other personnel costs.

Reporting against wait times

The costs for BCAs to report against wait times quarterly are estimated as follows:

$$\begin{aligned} \text{Wait time reporting costs}_t \\ = \text{No. of BCAs} \times \text{No. of FTE per BCA}_t \times (\text{Cost per FTE}_t \times (1 + \text{cost loading})) \end{aligned}$$

- *No. of FTE per BCA_t* is the estimated FTE required to collect and publish wait time data per BCA in each year (*t*).
- *Cost per FTE_t* as above.
- *Cost loading* as above.

IT set up costs to enable BCAs to report on wait times

We estimate small one-off costs for BCAs for IT changes to enable them to report on wait times:

$$\begin{aligned} \text{IT set up costs} = \text{No. of BCAs} \times \text{No. of IT contracting FTE per BCA} \\ \times \text{Cost per IT contracting FTE} \end{aligned}$$

- *No. of IT contracting FTE per BCA_t* is the estimated FTE required for initial IT set up costs for IT specialists, including analyst time, IT configuration/technical changes, and testing/quality assurance.
- *Cost per IT contracting FTE* is the estimated contracting cost.

Reviewing and updating existing guidance on remote inspections

One-off cost of \$50,000 in 2025/26.

Standardising inspection conventions

One-off cost of \$80,000 in 2025/26.

Addressing common causes of failure

\$80,000 in year one, \$100,000 in year two, \$50,000 in subsequent years.

Developing training

One-off cost of 0.5 FTE (including on cost loading) for one year.

Compliance costs

Compliance costs relate to the increase in resourcing required for BCAs to comply with the KPIs. While we model compliance costs through increased staffing, BCAs will likely have a range of options for achieving compliance, including adopting process improvements, reallocating existing resources, or changing inspection practices. As such, these estimates reflect a likely upper bound, based on scenarios where compliance is achieved primarily through increased resourcing.

Under Option 5, the proposed KPI is for 80 per cent of inspections to be completed within five working days. To assess the benefits of reducing building inspection wait times, we first needed to understand the current (counterfactual) distribution of inspection wait times across BCAs. However, data availability varied significantly across BCAs:

- For a small number of BCAs (two), sufficient data is available showing actual distributions of wait times across inspections (Christchurch and Dunedin).
- For a broader group of BCAs (20), only summary metrics of the minimum, maximum, and average wait times were available.
- For the remaining BCAs (45), no data was available at all.

To construct a plausible distribution of wait times for each BCA:

- where only minimum, maximum, and average wait times were available, we used the shape of the known distribution from the two BCAs with detailed data as a reference. This included assuming that the relative distributional shape (e.g., skewness) would be similar across BCAs.
- we scaled this known distribution to align with the reported minimum, maximum, and average wait times from each BCA. This gave us an estimated wait time distribution for each of those BCAs.
- for BCAs with no data, we grouped them based on similar characteristics (e.g., size, region, activity levels) and assigned them the same estimated distribution as a comparable BCA for which we had summary data.

From this analysis, we estimate that five TAs are currently non-compliant with the KPIs, i.e., are estimated to have wait time distributions where more than 20 per cent of average inspection wait times exceed five days—Christchurch, Dunedin, Matamata, Manawatu, and Timaru. This is based on the modelling described above that uses a combination of available wait time data and inferred distributions.¹²

We model two scenarios in our analysis:

¹² This approach makes the best use of the available data but relies on assumptions about similar performance or distribution across BCAs. As a result, there is significant uncertainty about how many BCAs currently exceed the KPI. If these assumptions do not hold, the actual number of BCAs not meeting the KPI threshold could be higher or lower.

Scenario 1: All increases in inspection capacity are attributable to the policy.

Scenario 2: Only non-compliant BCAs incur marginal increases due to policy.

Scenario 1

In Scenario 1, we assume that the full increase in inspection staffing (FTEs) required to meet and maintain the proposed KPI is a direct result of the policy. This includes both currently non-compliant and compliant BCAs. That is, even if a BCA is already meeting the KPI in the counterfactual, we treat any subsequent improvements in their inspection capacity as being driven by the policy. This approach captures the total marginal cost of reform under the assumption that the policy is solely responsible for capacity changes across the system.

Compliance costs are estimated based on the additional inspection staff (FTEs) required to meet and maintain the proposed five-day inspection KPI over time:

$$\begin{aligned} \text{Additional compliance costs}_{BCA} &= \text{Current inspector FTE} \\ &\times \text{Growth in consenting activity} \times \text{Cost per inspector}_{BCA} \end{aligned}$$

- *Current inspector FTE* is the current number of BCOs in each BCA.
- *Growth in consenting activity*:
 - For BCAs that are currently non-compliant with the proposed KPI, we assume an initial uplift in inspection staffing is required to meet the KPI. To estimate the size of this uplift, we first exclude the longest 20 per cent of inspection wait times (as permitted under the KPI) from the dataset, leaving only the 80 per cent that must be completed within five working days. We then identify how many of the remaining inspection periods still exceed the five working day threshold.

For example, if over a 12-month period, there are two months where average wait times exceed the KPI target of five working days by two working days, this equates to a total of four days of excess wait time. If the total inspection wait time over the data period was 80 days, then the excess wait time represents 5 per cent of total time, and we therefore assume a one-off increase of 5 per cent in inspection resources to close this compliance gap in the current period.¹³

Following this initial investment, we assume additional inspectors are hired in proportion to projected increases in building consent volumes. This ensures that the ratio of consents to BCOs remains constant over time, which is expected to be

¹³ This approach works in a static, point-in-time setting (i.e., for the initial required investment) because we can directly observe both the average inspection wait times and the magnitude of reduction required to bring non-compliant months back within the KPI threshold (albeit estimated through the wait time distribution analysis described above). However, this approach cannot be reliably extended to model wait times dynamically over time. This is because we do not have a robust way to estimate how changes in inspection capacity would translate into changes in future wait times, particularly in the presence of fluctuating demand, backlog accumulation and nonlinearity described in the benefits section below.

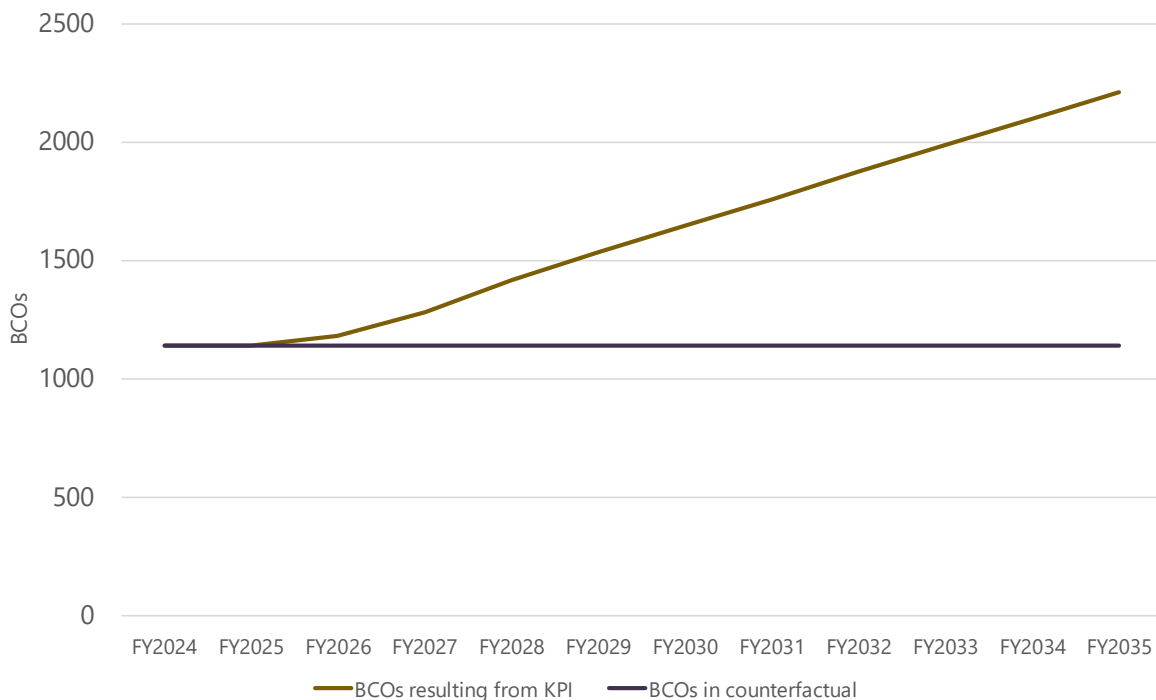
necessary to maintain inspection wait times within the required KPI threshold. We assume that an additional FTE is only hired when the projected number of BCOs reaches the next whole number, i.e., only full-time staff are hired. No reductions in FTEs are assumed, even if consent volumes decline in a given year.

Furthermore, any resourcing requirements other than direct labour costs are accounted for indirectly as the annual cost of an inspector includes expected overheads.

- For BCAs that already comply with the KPI (based on estimates using limited data as explained above), we assume that current wait times are maintained, and resourcing is scaled annually to keep pace with demand growth and ensure that wait times do not worsen, i.e., the current ratio of consents to BCOs is maintained. Similarly, we assume only full-time BCOs are hired, and we assume no reductions in the case of declining consent activity.
- $Cost\ per\ inspector_{BCA}$ is the estimated cost per inspector per BCA, including salary and overheads.

Figure 13 shows the estimated total number of BCOs in all BCAs under Scenario 1 (under the KPI) and in the counterfactual. The difference between the two lines represents the additional BCOs required as a result of the policy, which drives the total compliance costs.

Figure 13: Scenario 1 – number of BCOs in all BCAs resulting from KPI relative to counterfactual

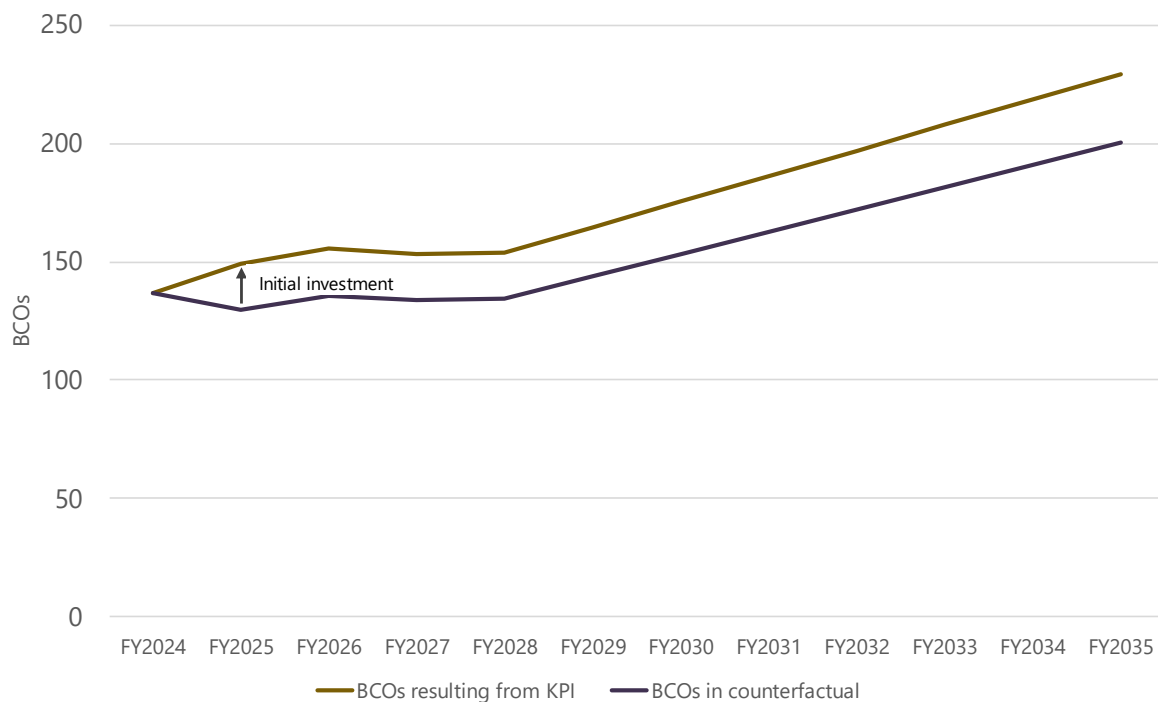


Scenario 2

For Scenario 2, we assume that currently compliant BCAs would maintain their inspection performance in the counterfactual (i.e., without the policy), and therefore do not attribute any additional cost to them under the reform. Any improvement in their inspection performance over time is assumed to occur regardless of the policy, so these gains are not counted as marginal effects of the reform.

For currently non-compliant BCAs, we assume the policy triggers an initial investment to meet the KPI (as in Scenario 1). However, in the counterfactual, these BCAs are assumed not to make this initial investment, but still grow inspection capacity over time at the same rate as under the policy scenario (growing in line with consenting activity). This reflects a view that long-run trends in resourcing may occur irrespective of reform, but the policy is responsible for accelerating improvements to bring BCAs into compliance sooner than they otherwise would be. Figure 17 shows the estimated total number of BCOs in non-compliant BCAs under Scenario 2 (under the KPI) and in the counterfactual. The difference between the two lines represents the additional BCOs required as a result of the policy, which drives the total compliance costs.

Figure 14: Scenario 2 – number of BCOs in non-compliant BCAs resulting from KPI relative to counterfactual



5.4.3 Benefits methodology for inspections

The key benefit from ensuring BCAs comply with the KPIs is expected to be reduced inspection wait times, which translates to reduced build time. Modelling the benefits of reduced inspection wait times through time is very complex and uncertain due to the nonlinear relationship between demand, capacity, and wait times. Wait times would increase exponentially when demand rises if capacity remains fixed (as assumed conservatively in the counterfactual to be confident that if breakeven benefits were achieved, there should be a positive net benefit).

This is due to the compounding nature of daily inspection backlogs. Even a modest increase in daily demand can result in disproportionately larger increases in average wait times over time. This is a well-established concept within queuing theory literature, often applied in health and customer service systems, which demonstrates how small mismatches between demand and capacity can result in exponential increases in wait times (Cho et al., 2017; Patrick & Puterman, 2008). Figure 15 demonstrates this in an illustrative example.

Figure 15: Illustrative example of nonlinear relationship between demand, capacity and wait times

Example Scenario 1: demand = capacity					Example Scenario 2: demand = capacity + 5%				
Date	Waiting list	Daily capacity	Wait time (days)	Daily demand	Date	Waiting list	Daily capacity	Wait time (days)	Daily demand
1/04/2025	1000	200	5	200	1/04/2025	1000	200	5.00	210
2/04/2025	1000	200	5	200	2/04/2025	1010	200	5.05	210
3/04/2025	1000	200	5	200	3/04/2025	1020	200	5.10	210
4/04/2025	1000	200	5	200	4/04/2025	1030	200	5.15	210
5/04/2025	1000	200	5	200	5/04/2025	1040	200	5.20	210
6/04/2025	1000	200	5	200	6/04/2025	1050	200	5.25	210
7/04/2025	1000	200	5	200	7/04/2025	1060	200	5.30	210
8/04/2025	1000	200	5	200	8/04/2025	1070	200	5.35	210
9/04/2025	1000	200	5	200	9/04/2025	1080	200	5.40	210
10/04/2025	1000	200	5	200	10/04/2025	1090	200	5.45	210
11/04/2025	1000	200	5	200	11/04/2025	1100	200	5.50	210
12/04/2025	1000	200	5	200	12/04/2025	1110	200	5.55	210
13/04/2025	1000	200	5	200	13/04/2025	1120	200	5.60	210
14/04/2025	1000	200	5	200	14/04/2025	1130	200	5.65	210
15/04/2025	1000	200	5	200	15/04/2025	1140	200	5.70	210
16/04/2025	1000	200	5	200	16/04/2025	1150	200	5.75	210
17/04/2025	1000	200	5	200	17/04/2025	1160	200	5.80	210
18/04/2025	1000	200	5	200	18/04/2025	1170	200	5.85	210
19/04/2025	1000	200	5	200	19/04/2025	1180	200	5.90	210
20/04/2025	1000	200	5	200	20/04/2025	1190	200	5.95	210
21/04/2025	1000	200	5	200	21/04/2025	1200	200	6.00	210
22/04/2025	1000	200	5	200	22/04/2025	1210	200	6.05	210
23/04/2025	1000	200	5	200	23/04/2025	1220	200	6.10	210
24/04/2025	1000	200	5	200	24/04/2025	1230	200	6.15	210
25/04/2025	1000	200	5	200	25/04/2025	1240	200	6.20	210
26/04/2025	1000	200	5	200	26/04/2025	1250	200	6.25	210
27/04/2025	1000	200	5	200	27/04/2025	1260	200	6.30	210
28/04/2025	1000	200	5	200	28/04/2025	1270	200	6.35	210
29/04/2025	1000	200	5	200	29/04/2025	1280	200	6.40	210
30/04/2025	1000	200	5	200	30/04/2025	1290	200	6.45	210

The example above illustrates how inspection wait times can grow nonlinearly when daily demand exceeds available capacity. In both scenarios, we start with the same initial waitlist (backlog) and wait time. In Example Scenario 1, daily demand exactly matches daily inspection capacity, so the waitlist remains stable over time—each day, the number of inspections completed equals the number of new requests, and wait times remain constant at five days. In Example Scenario 2, daily demand exceeds capacity by 5 per cent. Although this imbalance seems small, the backlog compounds over time. After just one month, the average wait time in Example Scenario 2 increases to 6.45 days, compared to five

days in Example Scenario 1—a 29 per cent increase in wait times resulting from a modest 5 per cent increase in daily demand.¹⁴

This example highlights the nonlinear and compounding nature of waitlist systems. Small mismatches between demand and capacity, if sustained, can lead to disproportionately large increases in delays. Building activity is projected to grow significantly over the 10-year modelling period. While the earlier example illustrates the impact of a small demand-capacity imbalance over just one month, the cumulative effects over ten years could be far more pronounced, particularly if capacity remains constant as assumed in the counterfactual. In reality, demand will fluctuate daily rather than remain steady as in the example, and due to data limitations such as the lack of detailed information on the current distribution of wait times, we are unable to precisely quantify the time savings from reduced wait times under the policy. As a result, rather than estimating the exact benefits (i.e., the expected reduction in inspection wait times), we apply a breakeven analysis and ask:

What is the minimum average reduction in construction time required to offset the costs of the proposed change?

This breakeven threshold provides a useful benchmark. If the estimated time savings from reduced inspection wait times are likely to meet or exceed this threshold, then the reform would deliver a positive net benefit.

We assess the economic value of time saved using the cost of capital as a proxy for the opportunity cost of construction time. This reflects the financial opportunity cost incurred when capital is tied up in construction activity. Bringing completion dates forward, even marginally, means that invested capital would begin generating returns earlier. The faster a project moves from consent to completion, the sooner it delivers benefits (such as rental income, business operations, or housing supply), noting of course the need to maintain housing quality to avoid any change in costs associated with building defects.

The breakeven is calculated by:

- estimating the total cost of the proposed changes
- estimating the economic value of time saved in construction, based on:
 - the total annual value of building work
 - the cost of capital (reflecting the opportunity cost of financing construction).

The breakeven point is then equal to the required average reduction in construction time to offset total costs of the proposed changes. Because of the scale and value of annual construction work, even marginal average gains in project delivery time nationally can result in significant benefits. The approach to estimate the required average reduction in build time is described below:

¹⁴ We note that in practice, wait times are most relevant at a daily level rather than portions of a day, but this is simply to illustrate the proportional increase over a short period if demand exceeds capacity.

$$\text{Average breakeven time reduction (days)}_t = \frac{\left(\frac{PV \text{ total costs}}{PV \text{ total construction value}} \right)}{\left(\frac{\text{Annual cost of capital}}{365} \right)}$$

1. **Estimate the total annual value of new construction work in each year:** we used the average annual value of building work consented in New Zealand, which was approximately \$27.3 billion in 2024 (Stats NZ, 2025). The full national value is used for Scenario 1 as we modelled marginal increases in resourcing in all regions. In Scenario 2 however, only the marginal improvements in the five currently non-compliant BCAs are attributable to the policy, so we used the combined value of building work consented in those regions alone to estimate benefits. We scaled the value of new construction work in subsequent years by the growth in consenting activity.¹⁵ We do not need to consider changes in the average value of buildings in each year as we use real costs (in 2024 dollars) in the CBA, in line with Treasury guidance.
2. **Determine the cost of capital:** we assume a 7 per cent annual cost of capital, which reflects the typical hurdle rate for private sector investment and opportunity cost of funds.¹⁶ This implies that completing a building one day earlier generates a benefit equal to approximately 0.0192 per cent of its value.
3. **Estimate the average time reduction required to break even in each year, i.e., offset total costs:** the present value of costs required to break even each year includes both the compliance costs under each scenario and all additional costs associated with the options described above.

¹⁵If building activity increases in the future more than predicted, the breakeven time savings required to offset costs would be lower than estimated here. Conversely, if building activity increases less than predicted, the required time savings would be higher.

¹⁶This breakeven analysis is for illustrative purposes. A cost of capital higher than the discount rate is used to reflect the opportunity cost of private sector investment, which differs from Treasury's guidance for public sector discount rates typically used in CBA. Under a higher cost of capital, fewer time savings would be required to offset costs; under a lower cost of capital, greater time savings would be required.

6. CBA results

This section summarises the results of the CBA.

6.1 Summary of costs and benefits for self-certification

The headline result in our central scenario is as follows:

Option 1 has a quantified NPV of \$19.2 million, composed of \$33.6 million in quantified costs and \$52.8 million in quantified benefits. Defects could increase by up to 21.9 per cent to result in a positive NPV, and the breakeven level of uptake of the scheme is 6.1 per cent.

Option 2 has a quantified NPV of \$38.8 million, composed of \$11.6 million in quantified costs and \$50.4 million in quantified benefits. Defects could increase by up to 46.2 per cent to result in a positive NPV.

The options have a combined quantified NPV of \$58 million.

The NPVs for both options are positive. However, as noted in section 5.1, any impact on the prevalence of defects is unquantified due to the inherent uncertainty. That is, defects may decrease from quality incentives or increase due to less oversight/incentives to control costs.

One way to interpret the positive NPVs is that it represents the net amount that net defects would have to increase (based on any increases minus any decreases) for the option to still return a net benefit to New Zealand.

- Option 1's defects could increase by an amount up to \$19.2 million over ten years and there would still be a positive NPV. This figure represents an approximately 21.9 per cent increase in the prevalence of defects compared to the projected counterfactual level of simple residential dwelling defects produced by the cohort of self-certifying plumbers and drainlayers.¹⁷ Further detail can be found in the breakeven defects calculation in Appendix E.
- Option 2's defects could increase by an amount up to \$38.8 million over ten years and there would still be a positive NPV. This figure is equivalent to a 46.2 per cent increase in the prevalence of defects compared to the projected counterfactual level of simple residential dwelling defect produced by self-certifiers in the scheme. Further detail can be found in the breakeven defects calculation in Appendix E.

The defects proportions can be interpreted as the maximum proportion of defects that self-certifiers can increase, over their counterfactual levels of defects produced, for the option to still break even.

¹⁷ We note that this breakeven figure should be viewed as indicative only. It relies on high level data and attributes the cost of defects to plumbers and drainlayers evenly. In practice, the current levels of defects potential self-certifying plumbers and drainlayers is highly uncertain and likely to vary significantly by practitioner.

That is, the proportion is relative to forecasted counterfactual levels of defects by the scheme participants.

In the central scenario for Option 1, we assume that 80 per cent of certifying professionals would opt into the scheme. However, the breakeven level of uptake required for a positive NPV is just 6.1 per cent. This relatively low threshold reflects the fact that most of the scheme’s costs and benefits are variable and scale with uptake. With only a small proportion of fixed costs—primarily related to regulatory implementation and initial database costs—even a modest level of participation is sufficient to generate net benefits.

Both options’ benefits are largely attributed to professionals’ benefits from faster construction completion. However, Option 2 has proportionately greater benefits to costs, as evidenced by its higher benefit-cost ratio (BCR). This difference is driven by the comparatively lower compliance costs and comparatively higher number of inspections reduced (all simple residential dwelling inspections avoided compared to Option 1’s inspections, limited to only to plumbers and drainlayers, adjusted for inspections chosen to be self-certified).

Table 11: Summary of costs and benefits in the central scenario 10-year NPV for self-certification (millions)

		Option 1	Option 2
Costs	Regulatory implementation	\$0.1	\$0.1
	Self-certification scheme administration ¹	\$18.6	\$10.1
	Compliance costs ¹	\$14.8	\$0.4
	Construction costs brought forward	\$0.0	\$0.9
	Subtotal	\$33.6	\$11.6
Benefits	Faster construction completion from avoided inspections	\$52.8	\$29.9
	Faster construction completion from avoided RFIs	\$0.0	\$20.5
	Subtotal	\$52.8	\$50.4
Breakeven increase in defects		21.9%	46.2%
Breakeven scheme uptake		6.1%	N/A
NPV		\$19.2	\$38.8
BCR		1.6	4.4
NPV combined		\$58.1	
BCR combined		2.3	

¹ Breakdowns by these components are provided in Appendix C.

Self-certification scheme administration and compliance costs can be further broken down into their components. These breakdowns are presented in Appendix D.

6.2 Summary of costs and benefits for inspections

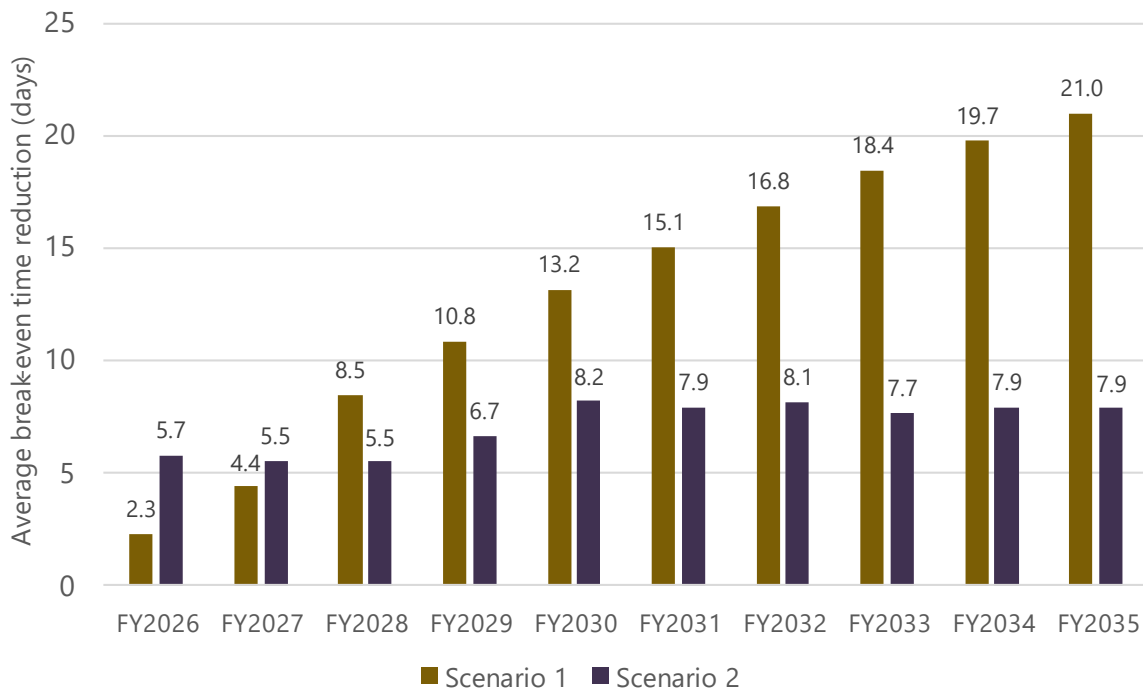
The headline results in our scenarios are as follows:

Scenario 1 has quantified costs of \$949 million, and an average required reduction in construction time to break even of 13 days (ranging from 2.3 days to 21 days in each year).

Scenario 2 has quantified costs of \$58 million, and an average required reduction in construction time to break even of 7.1 days (ranging from 5.5 days to 8.2 days in each year).

The full breakeven results in each year for both scenarios are presented in Figure 16 below.

Figure 16: Breakeven results for inspections scenarios



The breakeven results represent the average number of days by which new buildings need to be completed earlier each year to fully offset the costs associated with each option. Scenario 1 includes all new buildings nationally, and Scenario 2 only includes new buildings in the five BCAs that are currently estimated to be non-compliant with the KPI. In FY2026 under Scenario 1, new builds would need to be completed approximately 2.3 days earlier on average to break even on the compliance costs. This breakeven requirement increases over time, reaching 21.0 days by FY2035. Scenario 2 shows a more stable breakeven requirement, averaging around five to eight days per year.

While some of these figures may initially appear high, particularly in later years under Scenario 1, they may not be unreasonable when placed in context:

- No additional BCO hires are assumed in the counterfactual in Scenario 1, despite consenting activity being projected to almost double by 2035. This creates a compounding pressure on inspection wait times, as capacity is assumed to remain fixed under the counterfactual in Scenario 1 while demand accelerates. This is clearly an extremely conservative assumption as we expect some BCAs would expand their capacity under the counterfactual with this knowledge in mind, however it provides a basis for interpreting the result. In Scenario 2, the gap is less pronounced as capacity in the counterfactual is assumed to increase. However, because no upfront investment is assumed to bring non-compliant BCAs into compliance, capacity still lags behind growing demand, leading to an ongoing shortfall over the projection period.
- The compounding nature of inspection delays can have significant effects on project timelines. As illustrated in the earlier example scenario, inspection wait times grew significantly within just a single month under conditions of constant BCO capacity and increasing demand. In that case, average delays increased rapidly in a matter of weeks. Scenario 1 applies similar assumptions but over a 10-year horizon, making the expected cumulative impacts even more substantial.
- Importantly, the breakeven days should be understood as spread across the full project lifecycle. A typical building consent process involves around 12 separate inspections. Thus, a 21-day breakeven in FY2035, for example, could be interpreted as requiring less than two days saved per inspection, on average.
- We understand inspection wait times during the COVID-19 pandemic reached 33 days in the most extreme example, therefore it seems plausible that inspection wait times could reach at least 33 days over 10 years in our modelling example, if consenting activity is expected to almost double and we assume that capacity remains fixed.

Furthermore, the breakeven results should be interpreted with the following points in mind:

- **Represents an average across all activity:** the result is an average time saving per building across the total annual volume of building activity. In practice, the distribution of gains is unlikely to be uniform. Some projects may see larger time savings while others experience none. The breakeven condition could still be satisfied even if only a subset of projects experience time reductions, as long as the total time saved across all projects equals or exceeds the collective threshold.
- **Reflects an incremental threshold:** the breakeven value represents the incremental reduction in build time needed to offset the modelled increase in compliance (and other) costs. These compliance costs reflect the level of investment required to keep BCAs compliant with the KPI, compared to a counterfactual where BCO capacity remains fixed over time despite increasing consenting activity.
- **National variation is likely:** the average figure aggregates required reductions nationally in Scenario 1, and for a subset of regions in Scenario 2. However, local conditions and capacity constraints mean actual time savings will likely vary between regions and project types. For example, high-growth urban areas might realise greater total efficiency gains, while for smaller councils with more limited throughput, the total impacts could be less (though this may depend on the opportunities for efficiency as well as the scale to which it is applied).

Table 12 summarises the costs in both scenarios.

Table 12: Summary of scenario present value costs in the 10-year NPV for inspections (\$ millions)

Cost category	Scenario 1	Scenario 2
Regulatory implementation	0.01	0.01
Non-regulatory implementation	1.7	1.7
Compliance costs	947.6	56.5
Total costs	949.3	58.2

6.3 Sensitivity analysis for self-certification

The sensitivity analysis for self-certification is separated by Option 1 (Table 13) and Option 2 (Table 14).

Both options are sensitive to the time period of analysis and the average wait time. Time period sensitivity occurs because of the upfront nature of costs compared to benefits. The wait time sensitivity is a key driver of the time avoided, influencing both benefit categories.

In addition, Option 1 is highly sensitive to self-certifying professionals' use of self-certification. Self-certification significantly influences benefits because lower use of self-certification results in fewer delays being avoided, reducing overall benefits.

Table 13: Self-certification sensitivity analysis for Option 1

Sensitivities	Original assumption	New assumption	Revised Option 1 NPV (\$ millions)
NPV under central estimate			19.2
Uptake of self-certifying professionals (+/- 20 percentage points)	80% of certifying professionals	100% of certifying professionals	24.5
		60% of certifying professionals	14.0
Time taken to prepare application – compliance cost (+12 hours)	8 hours	20 hours	6.3
Self-certification professionals' use of self-certification (+/- 25 percentage points)	50% of inspections	75% of inspections	45.6
		25% of inspections	-7.2
Benefit to professionals (+/- 20%)	\$2,047 per week	\$2,456 per week	27.5
		\$1,637 per week	11.0
Benefit to homeowners (+/- 20%)	<ul style="list-style-type: none"> • Auckland \$650 • Waikato/Bay of Plenty \$560 • Wellington \$635 • Canterbury \$550 	<ul style="list-style-type: none"> • Auckland \$780 • Waikato/ Bay of Plenty \$672 • Wellington \$762 • Canterbury \$660 	21.5

Sensitivities	Original assumption	New assumption	Revised Option 1 NPV (\$ millions)
NPV under central estimate			19.2
	<ul style="list-style-type: none"> Otago \$573 Rest of NZ \$540 	<ul style="list-style-type: none"> Otago \$688 Rest of NZ \$648 	
		<ul style="list-style-type: none"> Auckland \$520 Waikato/ Bay of Plenty \$448 Wellington \$508 Canterbury \$440 Otago \$458 Rest of NZ \$432 	17.0
Average wait time (+/- 2 days)	4 days	6 days	45.6
		2 days	-7.2
Number of simple residential dwellings (+/- 20%)	Figures based on MBIE's construction pipeline report	+20%	29.6
		-20%	8.8
Discount rate (+6 percentage points) (The Treasury, 2024)	2%	8%	11.1
Timeframe (+10 years)	10 years	20 years	72.5

Table 14: Self-certification sensitivity analysis for Option 2

Sensitivities	Original assumption	New assumption	Revised Option 2 NPV (\$ millions)
NPV under central estimate			38.8
Registration application cost (+ to \$15,000)	\$5,860	\$15,000	38.2
Length of audit (+/- 2 days)	3 days	1 day	38.4
		5 days	39.3
Benefit to professionals (+/- 20%)	\$2,047 per week	\$2,456 per week	46.8
		\$1,637 per week	30.9
Benefit to homeowners (+/- 20%)	<ul style="list-style-type: none"> Auckland \$650 Waikato/ Bay of Plenty \$560 Wellington \$635 Canterbury \$550 Otago \$573 Rest of NZ \$540 	<ul style="list-style-type: none"> Auckland \$780 Waikato/ Bay of Plenty \$672 Wellington \$762 Canterbury \$660 Otago \$688 Rest of NZ \$648 	41.0
		<ul style="list-style-type: none"> Auckland \$520 Waikato/ Bay of Plenty \$448 Wellington \$508 Canterbury \$440 	23.9

Sensitivities	Original assumption	New assumption	Revised Option 2 NPV (\$ millions)
NPV under central estimate			38.8
		<ul style="list-style-type: none"> Otago \$458 Rest of NZ \$432 	
Average wait time (+/- 2 days)	4 days	6 days	53.8
		2 days	23.1
Number of simple residential dwellings (+/- 20%)	Figures based on MBIE's construction pipeline report	+20%	53.6
		-20%	26.7
Discount rate (+6 percentage points) (The Treasury, 2024)	2%	8%	25.3
Timeframe (+10 years)	10 years	20 years	91.2

6.4 Sensitivity analysis for inspections

We provide sensitivity analysis on the most significant assumptions in Table 15.

The breakeven average reduction in construction time was moderately sensitive to changes in assumptions around both compliance costs (i.e., the cost per additional inspector) and the cost of capital. Adjusting the discount rate had no effect on the breakeven reduction estimate. This is because costs and benefits are incurred in the same time periods.

Table 15: Results of sensitivity analysis for inspections

Sensitivities	Original assumption	New assumption	Scenario 1: revised average breakeven days	Scenario 2: revised average breakeven days
Breakeven days under central estimate			13 days (2.3 to 21 days)	7.1 days (5.5 to 8.2 days)
Costs				
Cost per inspector (compliance costs) (+10%)	Cost per inspector = \$200,000	Cost per inspector = \$220,000	14.3 days (2.5 to 23 days)	7.8 days (6 to 9 days)
Cost per inspector (compliance costs) (-10%)		Cost per inspector = \$180,000	11.7 days (2.1 to 18.9 days)	6.5 days (5 to 7.4 days)
Benefits				
Costs of capital (+1 percentage point)	7%	8%	11.4 days (2 to 18.3 days)	6.2 days (4.8 to 7.2 days)
Costs of capital (-1 percentage point)		6%	15.2 days (2.7 to 24.5 days)	8.3 days (6.4 to 9.5 days)
Other				

Sensitivities	Original assumption	New assumption	Scenario 1: revised average breakeven days	Scenario 2: revised average breakeven days
Breakeven days under central estimate			13 days (2.3 to 21 days)	7.1 days (5.5 to 8.2 days)
Discount rate (+6 <i>percentage points</i>) (The Treasury, 2024)	2%	8%	13 days (2.3 to 21 days)	7.1 days (5.5 to 8.2 days)

7. Discussion

In this section we discuss the distribution of impacts and provide further detail on limitations to our analysis.

7.1 Distribution of impacts

Consistent with Treasury guidance on CBA (New Zealand Treasury, 2015), our analysis focuses on the **overall net impact** of the proposed changes, focusing on **economic impacts** (for instance transfers or financing/insurance arrangements not explicitly factored in).

In doing so, we have wherever possible identified the parties to whom impacts would occur. It can also be useful to highlight where particular impacts may be felt more acutely by particular groups (Australian Transport Assessment and Planning Steering Committee, 2023; European Commission, 2022; The Office of Impact Analysis, 2023), which is what we focus on here.

In particular, we highlight how impacts may affect different stakeholders, depending on their:

- age
- ethnicity
- disability status
- household/family type
- geography
- wealth/income level.

Before doing so, we briefly discuss the role of distributional analysis in the following box.

Distributional impact analysis

Distributional impact analysis (DIA) considers the variance in the impacts of activities across different population groups. Increasingly, DIA is being sought as an aid to decision-makers in the design of policy and associated investments.

We suggest drawing on aspects of DIA to complement what may otherwise be a traditional CBA. DIA results can be presented as part of the CBA summary.

CBA results show whether society as a whole would be better or worse off as a result of proposals. DIA disaggregates the results of CBA to identify who in society is affected, as in the real world:

- the impacts (whether gains or losses) may vary across different groups (e.g., income, geography, etc.)
- the groups that are impacted by an initiative are not necessarily those whose benefits/disbenefits are measured in the CBA (where averages are often applied)
- benefits and costs may be passed on to others, for example, through changes in product prices, wages and land values.

While project benefits and costs are usually very widely spread over large numbers of people, the aim of DIA is to examine and highlight the cases where certain groups of people may be impacted disproportionately.

As noted by Australian Transport Assessment and Planning Guidelines (2023, p7), CBA is concerned with economic efficiency which relates to the size of the pie, while DIA relates to how the pie is divided up.

7.1.1 Distributional impact analysis for self-certification

Table 16 provides a summary looking across impacts in relation to the above population groups. Following that, we consider the key transmission element of assurance, liability and finance.

Table 16: Summary of distributional impacts for self-certification

Distributional	Impacts	
	Costs	Benefits
Stakeholder	<p>Regulatory implementation costs borne by MBIE to establish and implement the amendment to the Building Act.</p> <p>Monitoring and enforcement borne by MBIE.</p> <p>Self-certification scheme administration will be passed through to self-certifiers (through fees) who may pass it down to homeowners (also through fees).</p> <p>Compliance costs will be borne by self-certifiers who may pass it down to homeowners (through fees).</p>	<p>Avoided costs of inspections is felt by BCAs and homeowners who may face reduced consenting fees.</p> <p>Faster construction completion felt by builders, contractors, and homeowners.</p>
Age	Impact on the working age population who are employed as plumbers and drainlayers.	
Ethnicity	Limited material impact.	
Disability status	Limited material impact.	
Household/ family type	Limited material impact.	
Geography	Impacts will be felt most in areas where there can be inspection bottlenecks and where there are more simple residential dwellings built.	
Wealth/income	Costs will be borne by those building or developing houses who are more likely to be higher wealth/income groups relative to lower wealth/income.	Benefits are borne by those building or developing houses, who are more likely to be higher wealth/income groups.

Assurance, liability and finance

Both options reduce BCAs' oversight and therefore role in assurance.

This change may increase self-certifiers’ liability. There is a perception that BCAs are the “last party standing” when defendants are absent in building negligence court cases (MBIE, 2022b). To the extent that the removal of BCAs’ assurance role removes BCAs’ liability, additional liability will be transferred to the self-certifier.

Self-certifiers may be required to provide implied warranties, and if appropriate, remedies under the Building Act. As a result, self-certifiers may face more stringent insurance requirements and associated premiums. The ultimate risk could fall to homeowners if self-certifiers’ obligations are unable to be enforced, for example in the case of insolvency.

If operating outside the consenting process impacts the ability to obtain or the coverage/cost of finance or insurance, it would impact the homeowner and the provider of finance/insurance. This could involve requirements for independent inspections, exclusions, increased costs or at worst, voiding of insurance (at the extreme, including for the main building if it is judged that risks are related e.g. fire risk).

7.1.2 Distributional impact analysis for inspections

Table 17 summarises the distributional impacts for the preferred inspections options.

Table 17: Summary of distributional impacts for inspections

Distributional	Impacts	
	Costs	Benefits
Stakeholder	<p>Regulatory implementation costs borne by MBIE to establish and implement the amendment to the Building Act and non-regulatory measures.</p> <p>Non-regulatory implementation costs borne by MBIE to action the non-legislative changes.</p> <p>Monitoring and enforcement borne by MBIE (expected to be met by and part of existing resourcing).</p> <p>Compliance costs borne by BCAs to comply with KPIs.</p> <p>Training for inspectors and builders (expected to fit within existing training, advised no additional costs).</p>	<p>Faster construction completion felt by builders, contractors, and homeowners, particularly in regions where the current distribution of wait times exceed the proposed KPI threshold.</p>
Age	Minimal direct impact, however there is an indirect effect on older populations, as faster construction completion benefits homeowners who tend to be older on average.	
Ethnicity	Limited material impact.	
Disability status	Limited material impact.	
Household/ family type	Limited material impact.	
Geography	Impacts will be felt most in areas where the current distribution of wait times exceed the proposed KPI threshold.	

Distributional	Impacts	
	Costs	Benefits
Wealth/income	Limited material impact.	Benefits are borne by homeowners, who are more likely to be higher wealth/income groups.

The impacts of the preferred inspections options accrue to regions differently. As noted in section 5.4.2, we assume that the five TAs with more than 20 per cent of inspections currently exceeding five days will incur initial investment in resourcing to ensure compliance with the KPI and reduce wait times. From a distributional perspective, while the impacts are expected to be more significant in these five regions, the overall effect promotes greater national equity. These regions, which previously experienced longer wait times compared to the rest of New Zealand, will now see reductions aligning their wait times with the rest of the country.

7.2 Limitations

Self-certification

We were not able to identify volume builders that would be more or less likely to build simple residential dwellings in any robust method. Instead, we assume that volume builders are equally likely to build a simple residential dwelling. For example, if one franchisee builds 2 per cent of dwellings in Auckland, we estimate that they would build 2 per cent of simple residential dwellings.

We believe this estimate is conservative for two reasons. First, volume builders build at scale, so are more likely to use standardised designs compared to other builders. Second, self-certification is more likely to attract those constructing simple residential dwellings at scale, meaning volume builders that become self-certified are more likely to focus on such dwellings than other builders.

The uptake of self-certification is highly uncertain. It will be influenced by the extent of safeguards and restrictions imposed by MBIE. These elements are still being worked through. If safeguards are too stringent, uptake will likely be lower than anticipated, reducing the magnitudes of costs and benefits. The inverse will be true if safeguards are lenient with greater risks around defects.

Inspections

The wait time data was limited as noted in section 5.4. BCAs' wait time distributions (i.e. how often certain wait times occur) had to be extrapolated from wait time distributions provided by two BCAs. An average of these BCAs' distributions was estimated and applied to 20 BCAs where minimum, average, and maximums were provided. For the 47 remaining BCAs, we had to use groupings based on the number of consents processed annually. This process assumed that the distributions of the 65 unknown BCAs match the distributions of the two known BCAs (though it was adjusted for each BCA's minimum, maximum, and average). As actual distributions will vary across BCAs, this is a necessary but limiting assumption that means that the resulting costs (and breakeven benefits) need to be considered in light of this uncertainty.

Furthermore, due to limited data on both current inspection capacity and wait times, and the nonlinear relationship between excess demands and wait times, it was not feasible to model how wait

times would grow over time under scenarios where capacity and demand grow at different rates. As discussed in section 5.4.3, we instead determined the average reduction in construction time required to offset the compliance (and other) costs. This approach was necessary given the data constraints that prevented robust modelling of the impacts to wait times from asymmetric growth in capacity and demand.

In Scenario 1, we assume that all growth in inspection resourcing needed to maintain KPI compliance as demand increases is attributable to the policy. This assumes no additional capacity would be added in the counterfactual scenario, even with demand increasing significantly. This is a conservative assumption, and it is reasonable to expect that some growth in capacity might occur without the policy. However, the extent of such growth is uncertain. To partially account for this, Scenario 2 assumes that BCAs already meeting the KPI would maintain their current performance regardless of the policy, and that the only resourcing attributed to the intervention is the initial investment needed to bring non-compliant BCAs up to standard.

Materiality of limitations

The table below shows the expected materiality of each limitation with respect to the potential impact on costs, benefits and NPV:

Table 18: Limitations

	Limitation	Materiality
General limitations	The exact application and design of the options are still being refined as part of policy development.	Moderate impact
	The timeframes for completing this work, and therefore extent of research and ability to test assumptions with industry participants.	Moderate impact
Data/knowledge gaps	The uptake of self-certification (as a voluntary scheme), where a lower uptake would reduce some of the costs but importantly also the potential savings.	High impact
	The growth in wait times over time if demand increases faster than inspection capacity and the increase in resourcing that is likely to occur in the counterfactual.	High impact
	Volume builders that work on simple residential dwellings, the volumes they build, and how that is spread across different franchise or other models.	Moderate impact
	The full range of inspection requirements across BCAs.	Moderate impact
	Use of remote inspections across BCAs, and differences in processes and the potential for efficiencies across BCAs.	Moderate impact
	Causes of inspection failures, which is relevant to the ability to improve efficiency and risk of potential defects.	Low impact

References

Anthony, H., Townsend, P., Laurenson, P., Cowie, S., & Windahl, C. (2024). *ModelDocs: Transforming*

Building Consenting Behaviour for Better Housing (2024).

https://d39d3mj7qio96p.cloudfront.net/media/documents/BRANZ_ModelDocs_Anthony_Hoete_250124.pdf

Australian Transport Assessment and Planning Steering Committee. (2023). *T5 Distributional and equity effects of transport initiatives*. Australian Transport Assessment and Planning.

<https://www.atap.gov.au/tools-techniques/distributional-effects/index>

Bishop, C. (2024, July 4). *Going for Housing Growth speech*.

<https://www.beehive.govt.nz/speech/going-housing-growth-speech>

BRANZ. (2011). *Physical characteristics of new houses*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/SR261_Physical_characteristics_of_new_houses.pdf#:~:text=6,0

BRANZ. (2012). *Value of Time Savings in New Housing*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/SR259_Value_of_time_savings_in_new_housing.pdf

BRANZ. (2015). *New house construction quality survey 2014*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/SR335_New_house_construction_quality_survey_2014.pdf

BRANZ. (2025a). *Physical characteristics of new houses 2021*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/SR497_Physical_characteristics_of_new_houses_2021_FINAL.pdf

BRANZ. (2025b). *Physical characteristics of new houses 2022*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/SR498_Physical_characteristics_of_new_houses_2022_FINAL.pdf

Builder Connect. (2024, January 19). *Ultimate Guide To Builder Charge Up Rates NZ*.

<https://builderconnect.co.nz/blog/builder-charge-up-rates-nz/>

Building Performance. (2025). *National BCA competency assessment system levels*. Building

Performance. <https://www.building.govt.nz/building-officials/national-bca-competency-assessment-system/national-bca-competency-assessment-system-levels>

Chittock, N. (2022, April 16). *Sloppy builders may be contributing to building inspection delays*. RNZ.

<https://www.rnz.co.nz/news/national/465367/sloppy-builders-may-be-contributing-to-building-inspection-delays>

Cho, K. W., Kim, S. M., Chae, Y. M., & Song, Y. U. (2017). Application of Queueing Theory to the Analysis of Changes in Outpatients' Waiting Times in Hospitals Introducing EMR. *Healthcare Informatics Research*, 23(1), 35–42. <https://doi.org/10.4258/hir.2017.23.1.35>

Controller and Auditor-General. (2021). *Part 1: Councils' performance in 2020/21*. Office of the Auditor-General New Zealand. <https://oag.parliament.nz/2022/local-govt/part1.htm>

CoreLogic New Zealand. (2024, February 15). *Kiwi households face ongoing affordability squeeze*.

<https://www.corelogic.co.nz/news-research/news/2024/kiwi-households-face-ongoing-affordability-squeeze>

European Commission. (2022). *Distributional Impact Assessment*. European Commission.

https://employment-social-affairs.ec.europa.eu/policies-and-activities/social-protection-social-inclusion/addressing-poverty-and-supporting-social-inclusion/access-essential-services/distributional-impact-assessment_en

Extreme Plumbing. (2024, September 2). *A Comprehensive Guide to Plumber Costs in New Zealand*.

Plumber North Shore - Extreme Plumbing. <https://www.extremeplumbing.co.nz/a-comprehensive-guide-to-plumber-costs-in-new-zealand>

Gibson, A. (2024, May 1). *Power list: 20 busiest residential builders - who's up, who's down?* NZ Herald.

<https://www.nzherald.co.nz/business/companies/construction/who-are-nzs-20-busiest-home-builders/XAIPZ7EN6FCRXI4PURKRJIMYU4/>

Greene, T. (2024, April 4). *How Much Will Rents Increase in NZ in 2025?* Opes Partners.

<https://www.opespartners.co.nz/property-management/historical-rent-increases>

Joiner, M. (2022, August 29). *What does it cost to build a house in NZ?* Mortgages.Co.Nz.

<https://mortgages.co.nz/what-does-it-cost-to-build-a-house-in-nz/>

Master Builders. (2025). *Check your Builder*. Registered Master Builders Association of New Zealand.

https://www.masterbuilder.org.nz/RMBA/Check_your_Builder.aspx

MBIE. (n.d.). *Changes to building inspection wait times*. Building Performance. Retrieved 25 July 2025,

from <https://www.building.govt.nz/about-building-performance/all-news-and-updates/changes-to-building-inspection-wait-times>

MBIE. (2020). *Building work that does not require a building consent*. Ministry of Business, Innovation &

Employment. <https://www.building.govt.nz/assets/Uploads/projects-and-consents/building-work-consent-not-required-guidance.pdf>

MBIE. (2022a). *Review of the building consent system (2022)*. Ministry of Business, Innovation &

Employment. <https://www.mbie.govt.nz/have-your-say/building-consent-system-review>

MBIE. (2022b). *Risk, Liability, and Insurance in the building sector*.

<https://www.mbie.govt.nz/dmsdocument/22842-risk-liability-and-insurance-in-the-building-sector-policy-position-statement>

MBIE. (2023). *Briefing: Fiscal sustainability options for the Building and Construction portfolio.*

<https://www.mbie.govt.nz/dmsdocument/29402-2324-0930-fiscal-sustainability-options-for-the-building-and-construction-portfolio-pdf-pdf>

MBIE. (2024a). *Building Consent System: Inspection analysis.*

MBIE. (2024b). *BuiltReady Scheme Rules 2024-1 (June 2024).* Ministry of Business, Innovation &

Employment. <https://www.building.govt.nz/assets/Uploads/building-code-compliance/certifications-programmes/product-assurance/builtready-scheme-rules-2024.pdf>

MBIE. (2024c). *Making it easier to build—March 2024 [Cabinet Paper].* Ministry of Business, Innovation

& Employment. <https://www.mbie.govt.nz/dmsdocument/28294-making-it-easier-to-build-proactiverelease-pdf>

MBIE. (2024d). *MultiProof Scheme Guidance (Building Performance report-September 2024).* Ministry of Business, Innovation & Employment.

<https://www.building.govt.nz/assets/Uploads/building-code-compliance/certifications-programmes/multiproof/making-an-application/multiproof-scheme-guidance.pdf>

MBIE. (2024e). *National Construction Pipeline Report 2024.*

<https://www.mbie.govt.nz/dmsdocument/29978-national-construction-pipeline-report-2024-pdf>

MBIE. (2024f). *Regulations live for minor variations and customisations.* Building Performance.

<https://www.building.govt.nz/about-building-performance/all-news-and-updates/regulations-live-for-minor-variations-and-customisations>

MBIE. (2024g). *Remote Inspection Guidance for Building Consent Authorities.*

<https://www.building.govt.nz/assets/Uploads/building-officials/guides/remote-inspection-guidance-for-building-consent-authorities.pdf>

MBIE. (2024h, September 25). *MultiProof*. Building Performance.

<https://www.building.govt.nz/building-code-compliance/product-assurance-and-certification-schemes/multiproof>

MBIE. (2025). *Going for Growth: Unlocking New Zealand's potential*.

McWha, V. (2020). *Self-certification in construction industry trades*.

<https://www.mbie.govt.nz/dmsdocument/13712-sapere-report-self-certification-in-construction-industry-trades>

Mills, A., Love, P. E. D., & Williams, P. (2009). Defect Costs in Residential Construction. *Journal of Construction Engineering and Management*, 135(1).

https://www.researchgate.net/publication/228657716_Defect_Costs_in_Residential_Construction

Ministry for Regulation. (2025). *Regulatory Impact Statement (RIS) template*. Ministry for Regulation.

<https://www.regulation.govt.nz/support-for-regulators/resources-for-regulators/regulatory-impact-statement-template/>

ModelDocs. (2024). *Transforming Building Consenting Behaviour for Better Housing*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/BRANZ_ModelDocs_Anthony_Hoette_241005.pdf

MoneyHub. (n.d.). *What's the Average Building Cost Per Square Metre?* MoneyHub NZ. Retrieved 28

March 2025, from <https://www.moneyhub.co.nz/building-costs-per-square-metre.html>

National Party. (2024). *Going for housing growth*. National Party.

<https://www.national.org.nz/policies/housing-growth>

New Zealand Treasury. (2015). *Guide to Social Cost Benefit Analysis*. ISBN: 978-0-478-43698-3 (Online).

<https://www.treasury.govt.nz/sites/default/files/2015-07/cba-guide-jul15.pdf>

NZIER. (2020). *The Economic Cost of Quality Defects*.

https://d39d3mj7qio96p.cloudfront.net/media/documents/ER49_Economic_cost_of_quality_defects.pdf

Page, I. (2011). *Defects in New Houses*.

Parliamentary Counsel Office. (2025). *Building (Modular Component Manufacturer Scheme) Regulations 2022*. <https://www.legislation.govt.nz/regulation/public/2022/0171/latest/LMS698004.html>

Patrick, J., & Puterman, M. L. (2008). Reducing Wait Times through Operations Research: Optimizing the Use of Surge Capacity. *Healthcare Policy*, 3(3), 75–88.

Penk, C. (2024a). *Building consent processing times improve* | [Beehive.govt.nz](https://www.beehive.govt.nz).

<https://www.beehive.govt.nz/release/building-consent-processing-times-improve>

Penk, C. (2024b). *Faster consenting with remote inspections*. [Beehive.Govt.Nz](https://www.beehive.govt.nz).

<https://www.beehive.govt.nz/release/faster-consenting-remote-inspections>

Penk, C. (2024c). *Trusted building professionals able to self-certify*. [Beehive.Govt.Nz](https://www.beehive.govt.nz).

<https://www.beehive.govt.nz/release/trusted-building-professionals-able-self-certify>

PGD Board. (2024). *Annual Report 2024—Plumbers, Gasfitters, and Drainlayers Board*. The Plumbers, Gasfitters, and Drainlayers Board. <https://www.pgdb.co.nz/media/44lphkjo/pgdb-annual-report-2024.pdf>

Public Service Commission. (2024). *Workforce Data—Wage trends*. Te Kawa Mataaho Public Service Commission. <https://www.publicservice.govt.nz/research-and-data/workforce-data-remunerationpay/wage-trends>

Stats NZ. (2024). *Household income and housing-cost statistics: Year ended June 2023*. Statistics New Zealand. <https://www.stats.govt.nz/information-releases/household-income-and-housing-cost-statistics-year-ended-june-2023/>

Stats NZ. (2025, June 5). *Value of building work put in place: March 2025 quarter*.

<https://www.stats.govt.nz/information-releases/value-of-building-work-put-in-place-march-2025-quarter/>

Taylor, P. (2016). *Identification of issues for industry attention within Auckland building activities*.

<https://nzcic.co.nz/wp-content/uploads/2015/10/Taylor-Report-Akld-Bldg-Quality-July-2016.pdf>

The Office of Impact Analysis. (2023). *Distributional analysis*. Department of the Prime Minister and

Cabinet. <https://oia.pmc.gov.au/resources/guidance-assessing-impacts/distributional-analysis>

The Treasury. (2024, October 2). *Discount Rates*. [https://www.treasury.govt.nz/information-and-](https://www.treasury.govt.nz/information-and-services/state-sector-leadership/guidance/reporting-financial/discount-rates)

[services/state-sector-leadership/guidance/reporting-financial/discount-rates](https://www.treasury.govt.nz/information-and-services/state-sector-leadership/guidance/reporting-financial/discount-rates)

Appendix A MultiProof and BuiltReady

This appendix provides further information on the MultiProof and BuiltReady schemes.

MultiProof is a national pre-approval system for standard building designs

MBIE grants MultiProof approvals for pre-approved building designs. It offers advantages to builders and companies that construct standardised designs. MultiProof approval provides evidence to local councils that a particular design complies with the New Zealand Building Code. The pre-approval process involves providers submitting to MBIE, and MBIE reviewing the application to ensure it complies with the Building Code. Once granted by MBIE, the design is added to the MultiProof register, allowing councils to access the necessary information (MBIE, 2024h).

MultiProof's benefits include faster processing times, as councils must decide on a MultiProof application within 10 working days (usually 20). This efficiency is because pre-approved designs are already available in the register, eliminating the need for time-consuming reviews for standard building consents. Additionally, MultiProof offers cost savings by reducing the need to create individual plans and consent documents for similar building designs. Despite the pre-approval of core designs, the system remains flexible, allowing for site-specific considerations and minor design modifications while staying within the approved parameters of the MultiProof design.

However as outlined below, the recent review of MultiProof indicated that it has not yet had the impact originally anticipated, and we therefore expect some change may occur to the targeting of the MultiProof initiative separate to this proposal.

Takeouts from MultiProof Review November 2023

Review material shared with us indicated the following:

- Demand for MultiProof approvals has been significantly lower than originally projected, and is unlikely to reach the high volumes predicted for a variety of reasons. The current fee structure requires frequency of use to generate revenue, with use coming from either unique users or repeat users.
- MultiProofs are typically checked in the same way as any design, as MultiProofs are often misused.
- Some BCAs charge an extra fee to process a MultiProof, though savings may still occur with enough uses.
- Limited evidence suggests that only a small number of builders advertise they have MultiProofs and the benefits of their use.
- BCAs indicate that timeframes overall have not improved, and that in many cases MultiProof means extra processing work is needed.

In September 2024, the Building (Minor Customisations) Regulations 2024 came into effect to clarify the definition of a 'minor variation,' and to formally create a definition of a 'minor customisation' for MultiProof approvals (MBIE, 2024d). These changes were implemented to increase flexibility in both the MultiProof scheme and the broader building consent system. While building consent authorities

still need to verify that the work complies with the Building Code, applicants will no longer need to submit an amendment for most minor or straightforward changes in products or designs.

BuiltReady is a national certification scheme for prefabricated or off-site manufactured buildings

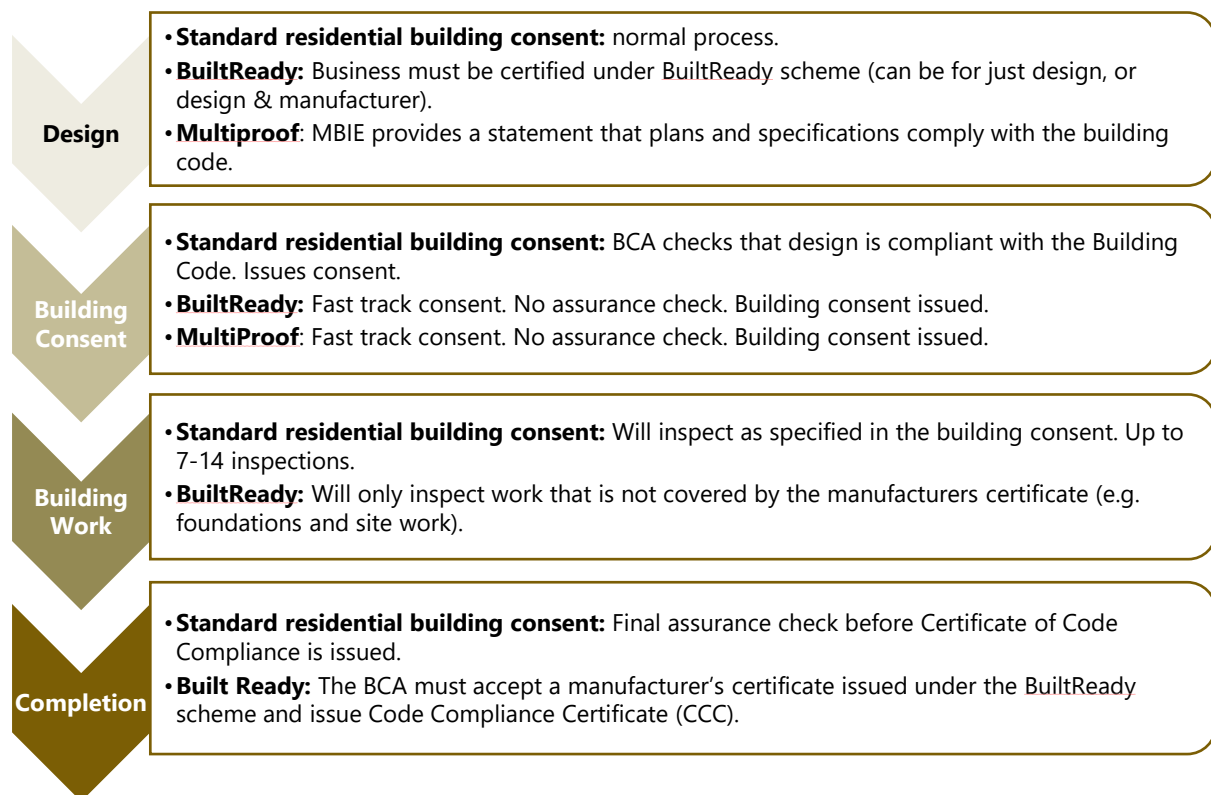
The BuiltReady certification scheme is a voluntary program for modular component manufacturers. It allows these manufacturers to become certified and registered to produce modular building components, which can then be constructed offsite. Since in-person site inspections can be impractical and cause delays for offsite construction, BuiltReady provides an alternative approach that streamlines the process.

The BuiltReady scheme’s benefits include lower building costs, fewer construction delays, and reduced production waste, making it a more efficient and cost-effective solution for modular construction projects.

Although the BuiltReady scheme has been implemented, it is not yet operational. An accreditation body is in place (MBIE, 2024b), but no certification bodies have currently been appointed.

A summary of the BCA’s role across the four consenting process stages, and how MultiProof and BuiltReady apply, is shown in Figure 17.

Figure 17: Summary of the BCA’s role across the consenting process



Source: MBIE

Appendix B Further context to MCA assessments

Below we provide further information of how the key considerations for each criterion were assessed, including highlighting positives and negatives relative to the counterfactual and the key uncertainties, assumptions, and design choices that would influence assessments.

Self-certification

Strategic fit

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>Consistent with National Party commitment, Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Links to each outcome and impacts in the theory of change (outcomes A, C through increasing responsibility of plumbers and drainlayers through the opt-in scheme, and outcomes B, D by providing self-certification as an option for new plumbing and drainlaying work. Each of these link to impacts I and II, through greater choice, industry practices, and internalising requirements when applied, while seeking to ensure impact III through eligibility requirements but which is otherwise a risk).</p> <p>Also links to policy objective through enabling self-certification for plumbing and drainlaying work, which should align responsibilities with those best placed to manage risk and improve efficiency and effectiveness of assurance practices to make it faster and cheaper to build simple residential dwellings. The strength of these links/the overall impact is dependent on uptake, but limited to the portion of build costs related to plumbing and drainlaying.</p>		<p>The degree to which this achieves policy objectives will be influenced by uptake and application of the scheme. This will be partly impacted by policy design elements (as noted in section 4.3.1, with aspects necessary to manage potential risks), which Option 1 may be most sensitive to.</p> <p>Option adds flexibility in terms of managing certification of plumbing and drainlaying work and potential to support greater certainty in terms of requirements and timeframes (e.g. if inspection or consent wait times were to deteriorate, there may be more demand for this scheme which could help manage the pressure on BCAs).</p> <p>Reductions in the time to build are expected, with a reduction of plumbing- and drainlaying-related inspections per build (approximately four of the 10 to 15 inspections per build).</p> <p>Some savings from the cost to build from fewer consenting and inspection fees and related expenses. However, 1) savings are limited to plumbing and drainlaying consenting components which do not make up a large proportion of building costs, and 2) there would also be a cost to plumbers and drainlayers to be part of the scheme (e.g. self-certification fees, and increased insurance premiums to cover plumber's increased liability) which need to be considered against</p>

			<p>consenting and inspection fees in terms of net impacts that consumers will face.</p> <p>Benefits would be lower per instance than under Option 2, but the volume of uptake could offset this (noting uncertainty around uptake under each option as these are voluntary schemes with design elements to be worked through).</p>
2	<p>Consistent with Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Links to each outcome and impact in theory of change (outcomes A, C through increasing responsibility of entire home-builders through the opt-in scheme (and requirements they may put on subcontractors) and outcomes B, D by providing self-certification as an option for entire build works. Each of these link to impacts I and II, through greater choice, industry practices and internalising requirements when applied while seeking to ensure impact III through eligibility requirements, but which is otherwise a risk).</p> <p>Also links to policy objective through enabling self-certification for work on entire builds, which should align responsibilities with those best placed to manage risk and improve efficiency and effectiveness of assurance practices to make it faster and cheaper to build simple residential dwellings. The strength of these links/the overall impact is dependent on uptake, but limited to work on entire builds.</p>		<p>A form of self-certification aimed at similar objectives but not consistent with the National Party's commitment (potentially more aligned than options 3 to 5, however).</p> <p>The degree to which this achieves policy objectives will be influenced by uptake and application of the scheme. This will be partly impacted by policy design elements (as noted in section 4.3.1, with aspects necessary to manage potential risks), which Option 2 will be more sensitive to than Option 3.</p> <p>Adds flexibility in terms of managing certification of entire builds and potential to support greater certainty in terms of requirements and timeframes (e.g. if inspection or consent wait times were to deteriorate, there may be more demand for this scheme which could help manage the pressure on BCAs).</p> <p>Reductions in the time to build are expected due to not requiring a consent or oversight from BCAs on building work.</p> <p>Some savings from the cost to build from not going through the building consent system, as well as reducing consenting fees and delays caused by waiting for inspections or failed inspections (noting risks below around identifying quality issues). However: 1) consenting components do not make up a large proportion of building costs, though associated delays may be more significant, and 2) there would also be a cost to be part of the scheme (e.g. self-certification fees, any investments in internal systems, and increased insurance premiums to cover increased liability) which need to be considered against the expected savings in terms of net impacts that consumers will face.</p>

3	<p>Consistent with Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Links most closely to reducing consenting requirements outcome (D) in theory of change by reducing the consenting requirements for those accredited for fast-track. Also supports outcome C somewhat by shifting some of the assurance responsibility to the accredited business, MBIE (as the one approving the businesses) and consumers.</p> <p>Also links with the theory of change impact I by making it faster to consent eligible building work, while seeking to ensure impact III through eligibility requirements, but which is otherwise a risk.</p> <p>Further, links to the policy objective where successful in making it faster and cheaper to building simple residential dwellings. The strength of these links/the overall impact is dependent on uptake and design/application by BCAs.</p>	Does not support the government's commitment to introduce a self-certification scheme for plumbers.	<p>The degree to which this achieves policy objectives will be influenced by uptake and application of the pathway. This will be partly impacted by policy design elements (as noted in section 4.3.1, with aspects necessary to manage potential risks) as well as BCAs continuing to be joint and severally liable (which may limit application or degree of change under the scheme).</p> <p>Adds flexibility and potential to support greater certainty in terms of requirements and timeframes if there is alignment across the country in application. An expected reduction in inspections would result in time and cost savings.</p> <p>Some savings in the cost to build from not going through the building consent system, and reducing consenting fees and delays caused by waiting for inspections or failed inspections (noting risks below around identifying quality issues). However: 1) consenting components do not make up a large proportion of building costs, though associated delays may be more significant, and 2) there would also be a cost to be part of the scheme (e.g. any increased insurance premiums to cover increased liability) which need to be considered against the expected savings in terms of net impacts that consumers will face.</p>
4	<p>Consistent with Going for (Housing) Growth area of focus.</p> <p>Links most closely to the reducing consenting requirements outcome (D) in theory of change by seeking to reduce the requirements for those that take up Built Ready or MultiProof schemes as a result of the promotion. Also supports outcome C somewhat by shifting some of the assurance responsibility to the applicable providers, MBIE, and consumers.</p> <p>Also seeks to link with the theory of change impact I by making it faster to consent eligible building work, while</p>	Does not support the government's commitment to introduce a self-certification scheme for plumbers.	<p>The degree to which this achieves policy objectives will be influenced by the effectiveness of promotion campaigns in increasing uptake of the schemes and in the application of the schemes by BCAs.</p> <p>We assume a minimal impact in our assessment,¹⁸ but this is subject to that assumption. If knowledge and understanding of these schemes is a key barrier, it could score higher. However, the schemes already exist and we understand the industry has a degree of familiarity with them.</p> <p>May reduce consenting timeframes and slightly reduce costs when applied, and provide additional flexibility to BCAs. As with any potential to increase certainty, this depends on how it is applied by BCAs (noting the findings from the MultiProof Review in 2023, discussed in Appendix</p>

¹⁸ We note uptake and potential improvements have been less than expected to date, but also that there have been changes made since introduction.

	<p>seeking to ensure impact III through eligibility requirements, but which is otherwise a risk.</p> <p>Further links to the policy objective where successful in making it faster and cheaper to building simple residential dwellings. The strength of these links/the overall impact is dependent on campaign effectiveness and application of the schemes by BCAs.</p>		<p>A, that these outcomes had not been achieved to that point—adjustments have been made since the review, however).</p>
5	<p>Links most closely to the improved quality assurance practices (A) and greater industry/homeowner knowledge and responsibility for risk management (C) outcome in theory of change. Also links to theory of change impact III by encouraging good QA processes as a way of supporting quality housing, and I where it is successful in identifying and remedying any quality (or documentation/reporting) issues earlier and improving productivity as a result.</p> <p>Also links to the policy objective of improving assurance practices and the speed and cost of building. The strength of these links/the overall impact is dependent on campaign effectiveness.</p>	<p>Does not support the government’s commitment to introduce a self-certification scheme for plumbers.</p>	<p>The degree to which this increases the quality of professionals’ work (reducing the reliance on BCAs to ensure compliance, cost to build, and risks of defects) will depend on the effectiveness of the promotion campaign. In turn, effectiveness is likely to be related to: 1) extent of any limitations in knowledge and understanding of opportunities to improve quality, and 2) incentives to change practices as a result of improvements in knowledge and understanding.</p> <p>We assume a minimal impact in our assessment as it may not change industry incentives, but this is subject to that assumption. However, if knowledge and understanding is a significant barrier that the campaign can address, it could score higher.</p>

Efficient building system

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>Should: (i) reduce some of the build time where internalising assurance reduces wait times, RFIs, and/or re-inspections or time associated with any rework (particularly if there is an efficient interface with BCAs); (ii) improve flexibility in the face of any BCA constraints and provide options for consumers to seek out alternative assurance pathways or providers; (iii) target areas where inspection failure rates are relatively low (e.g. 9% for plumbing work in Auckland over the most recent 12-month period compared to 24% on average), and risks should be more contained (as plumbers</p>	<p>Costs to participate in the scheme (and adjust any practices), potential risks (see below), and places a significant responsibility on consumers in procuring work and managing risk.</p>	<p>There is a risk that professionals’ compliance, certification, and coordination across different points of assurance could add costs greater than those saved by BCAs. The targeting of the policy will need to balance this with appropriate protections to manage the risks of defects. The scheme could potentially provide an additional incentive to ensure quality if suppliers face increased risk from poor work.</p> <p>However, this needs to be balanced against the potential for risks to go undetected if the absence of a third party is not offset by internal systems, or if self-certifiers’ incentives to minimise costs and manage liability undermine good practice—especially if the consequences are</p>

	and drainlayers can already self-certify work in relation to existing buildings under Schedule 1 of the Building Act, so deficiencies or non-compliance with the Building Code are not expected to differ significantly from the counterfactual).		not sufficient to counteract these pressures. As noted above, cost savings depend on net impacts and are limited by the proportion of build costs that plumbing and drainlaying consenting on new buildings represents. The ability for self-certifiers to obtain any necessary or additional insurance, or access appropriate financial instruments, may impact uptake, costs of any defects, and broader building system efficiency. The costs and benefits of this option are explored further in the CBA.
2	Should support (i) and (ii) in Option 1. Point (i) could also arise from reduced consent timeframes and/or CCC timeframes due to a modified consent, as well as from reduced inspection times as in Option 1. Application across entire builds may increase risk and pose more of a challenge for uptake, but present opportunities—particularly for volume builders.	Costs to participate in the scheme (and adjust any practices), potential risks (see below), and places a significant responsibility on consumers in procuring work and managing risk.	The same risks apply as in Option 1, but the focus across entire builds results in a greater transfer of BCA functions to self-certifiers (rather than targeting the self-certification of particular, potentially lower-risk or more technical and lower-assurance-value components). The ability for self-certifiers to obtain any necessary or additional insurance, or access appropriate financial instruments, may impact uptake, costs of any defects, and broader building system efficiency. The costs and benefits of this Option are explored further in the CBA.
3	Should: (i) reduce some of the build time if fast-tracked in practice (through reduced RFIs, inspection wait times, or consent wait times); (ii) improve flexibility in the face of any BCA constraints. Certification by MBIE will inform the BCA and public of (registered) trusted builders, as they will be assessed as having robust quality assurance processes and a strong track record.	Costs to participate in the scheme (and adjust any practices).	As with options 1 and 2, there is a risk that professionals' compliance, certification, and coordination across different points of assurance could add costs greater than those saved by BCAs. This risk is particularly relevant if BCAs end up needing to duplicate assurance activities due to continued joint and several liability. The targeting of the policy will need to balance this with appropriate protections to manage the risk of defects.
4	May reduce build time for those who take up these schemes and where they achieve their intended outcomes. It may also increase understanding of consumer options, noting the assumptions under "strategic fit" above, where we assume the impact may not be material.	Costs of the campaign and potentially resulting adjustment costs for providers and consumers.	See comments on "strategic fit" above.
5	May reduce some of the build time if successful in resulting in fewer failed inspections.	Costs of campaign and potentially resulting adjustment costs for	The materiality of efficiencies will depend on the campaign's effectiveness, which will reflect both improvements in understanding and the incentives within the sector for behavioural change. For the

		providers, consumers, and BCAs	reasons noted under “strategic fit,” we assume the impact may not be material.
--	--	--------------------------------	--

Quality regulation

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	Consistent with gas fitters’ self-certification, and work that can be self-certified would likely align with areas where there is least disruption and greater confidence (i.e. potentially more proportional to risk). The approach is also consistent with work that plumbers can undertake on existing buildings without requiring a consent as per Schedule 1 of the Building Act. Also consistent with broader work in the regulatory system to consider registration and licensing requirements, as well as work to consider liability settings.	<p>Adds a small amount of complexity to the PGD Act and Building Act because the certification role of BCAs and professionals will vary depending on the nature of work covered as part of a building consent, and whether the voluntary self-certification scheme is used or not.</p> <p>Potentially, liability may be more difficult to determine.</p> <p>As noted under risk criteria below, the robustness of this option depends on the degree to which the safeguards are able to manage risk to consumers and ensure the accountability of the provider, the services, and assurances on these for ensuring safe, quality homes and meeting liabilities if this is not achieved (noting the potential for this to be more difficult to determine in this case).</p>	
2		<p>Adds a small amount of complexity to the Building Act, though the role of professionals and BCAs will be distinct and clear (when applied). The voluntary nature means a more complex set of potential approaches for consumers to understand.</p> <p>As noted under risk criteria below, the robustness of this option depends on the degree to which the safeguards are able to manage risk to consumers and ensure the accountability of the provider, the services, and assurances on these for ensuring safe, quality homes and meeting liabilities if this is not achieved.</p>	

3		<p>Adds low to moderate complexity to the Building Act. The role of BCAs relative to accredited businesses will be less clear and determined by BCAs, which may lead to inconsistency across New Zealand.</p> <p>Liability may be more difficult to determine.</p> <p>As noted under risk criteria below, the robustness of this option depends on the degree to which the safeguards are able to manage risk to consumers and ensure the accountability of the provider, the services, and assurances on these for ensuring safe, quality homes and meeting liabilities if this is not achieved (noting the potential for this to be more difficult to determine in this case).</p>	
4	Consistent with broader work looking at MultiProof design customisation.		No change to regulation, so the quality of regulation is unchanged relative to the counterfactual. Some additional consistency where applied.
5	Would support the broader direction of the regulatory system and look to encourage parties able to control quality to do what they can to ensure quality.		<p>No change to regulation, so the quality of regulation is unchanged relative to the counterfactual.</p> <p>The extent of improvements in quality and any reduction in deficiencies would depend on effectiveness, as noted above.</p>

Responsive settings

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	The self-certification assurance roles could be adjusted over time to ensure settings are supporting intended outcomes and proportional to the needs.	The ability to detect issues in self-regulated work will be limited by the frequency and extent of any audit or monitoring.	Information on performance (from which to base any adjustments) will depend on reporting, auditing and monitoring requirements and the volume of updates to provide visibility of relative performance. The ease of adjusting assurance roles and requirements will depend on what is set out in legislation, regulations and through practices of the PGD board.
2	The self-certification assurance roles could be adjusted over time to ensure settings are supporting intended outcomes and proportional to the needs.	The ability to detect issues will be limited by the frequency and extent of the auditing function or application of any other monitoring safeguards.	Information on performance (from which to base any adjustments) will depend on reporting, auditing and monitoring requirements and the volume of updates to provide visibility of relative performance. The ease of adjusting assurance roles and requirements will depend on what is set out in legislation, regulations and through MBIE's practices in relation to operating the regime.
3	The application of fast-track could be adjusted over time.		The ability to detect issues will be controlled by the frequency and extent of auditing and the BCA's own inspections. It is assumed that BCAs' inspections will occur at a level sufficient to manage their liability risk and that there is no material change in defects as a result.
4	Potential for greater awareness to ease understanding of any adjustments to schemes that could be highlighted as part of campaigns (if insights are available at the point of the campaign).		No change to ability to respond.
5	Potential for greater awareness to ease understanding of any adjustments that could be highlighted as part of campaigns (if insights are available at the point of the campaign to feed in based on prior experience).		No change to ability to respond.

Risk

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>Risk and liability will be more appropriately allocated to professionals completing the work.</p> <p>Incentives to maintain self-certification would support high-quality workmanship and reduce the risk of defects.</p>	<p>Commercial incentives and consumer pressures may encourage downplaying or overlooking risks and trading off quality for timeliness, increasing the risk of defects.</p> <p>Risks may be more difficult to determine in some instances.</p> <p>Lack of BCA oversight over some parts of the construction process may increase the risk of defects.</p> <p>Could shift some risk onto consumers that they may not be well placed to manage.</p>	<p>An overall neutral rating assumes that safeguarding mechanisms, such as a proven track record and quality assurance processes, would effectively mitigate the risk of increases in defects. However, there is a chance the risk increases if these are insufficient or finance and insurance products are not available to support the intent, in which case risk would be worse than the counterfactual.</p> <p>BRANZ studies have indicated that around 14% to 20% of new houses have identified wiring or plumbing defects, which could go unnoticed or increase if these changes were not effectively managed (Page, 2011, 2016).</p> <p>Two submissions to MBIE indicated recent inspection failure rates of 9% and 37% for plumbing, and 14% and 35% for drainage, with higher rates including more complex projects. Earlier work related to simple residential dwellings estimated defect costs between 3%-10% of build costs (Mills et al., 2009; NZIER, 2020), with mean claims costs at the time for water ingress relating to plumbing being AUD753.29 and drainage AUD1,048.61.</p> <p>Risks around defects relate to underlying economic cost. Safeguards are expected to manage this risk, possibly changing insurance costs for plumbers, drainlayers, or consumers. Any additional premium would be a transfer from payers to insurers for taking on the risk,¹⁹ representing part of risk allocation, while any impact on defects reflects the overall risk nature.</p>

¹⁹ Transfers represent a redistribution of resources within society and are not included in a CBA.

2	<p>Risk and liability will be more appropriately allocated to professionals completing the work.</p> <p>Incentives to maintain self-certification would support high-quality workmanship and reduce the risk of defects.</p>	<p>Commercial incentives and consumer pressures may encourage downplaying or overlooking risks and trading off quality for timeliness, increasing the risk of defects.</p> <p>Risks may be more difficult to determine in some instances.</p> <p>Lack of BCA oversight over all parts of construction may increase the risk of defects, particularly without the BCA role.</p> <p>Could shift some risk onto consumers that they may not be well placed to manage.</p>	<p>Extent of risk will depend to an extent on the effectiveness of safeguarding mechanisms, such as a proven track record and quality assurance processes, would effectively mitigate the risk of increases in defects. However, there is a chance that the risk increases, especially if there are not sufficient or finance and insurance products available to support the intent.</p> <p>We note that BRANZ studies have indicated that around 48% to 82% of new houses were identified as having had some form of defect, while the two councils that provided information in submissions to MBIE indicated more recent inspection failure rates of an average of 24% and 40% for new residential inspections respectively. While we do not have a breakdown that it targeted at those likely to become part of the scheme under Option 2, there is the potential for such defects to go unmissed (or increase relative to the case for these providers under the counterfactual) if these changes were not effectively managed (Page, (2011, 2016) and submission to MBIE). Earlier work we have undertaken in relation to simple residential dwellings identified that the costs of defects could on average be somewhere between 3% to 10% of build costs based on (Mills et al., 2009; NZIER, 2020).</p> <p>The risks around defects go to the underlying economic cost. Safeguards are expected to try to manage this risk, which may result in changes in insurance costs to relevant builders or consumers. However, any additional premium would be a transfer from relevant builders/consumers paying the additional expense to insurers receive it as income for taking on the risk.²⁰ This transfer may be part of allocating risks, while any resulting impact on defects would represent the overall nature of the resulting risk.</p>
3	<p>Risk and liability will be more appropriately allocated to those completing the work,</p>	<p>Commercial incentives and consumer pressures may encourage downplaying or overlooking risks and trading off</p>	<p>Extent of risk will depend to an extent on the effectiveness of safeguarding mechanisms both within the scheme design and from BCA's required inspections, will appropriately mitigate the risk of</p>

²⁰ Transfers represent a redistribution of resources within society and are not included in a CBA.

	<p>though may be more difficult to determine in some instances.</p> <p>Incentives to maintain accreditation would support high-quality workmanship which reduces the risk of defects.</p>	<p>quality for timeliness, increasing the risk of defects.</p> <p>Lack of BCA oversight over <i>some</i> parts of the construction process for the self-certification pathway increases the risk of defects.</p>	<p>defects. As noted for the two prior options, there is a significant rate of defects in new buildings at present and there is the potential for a higher portion of defects to go unmissed (or for defects to increase relative to the case for these accredited businesses under the counterfactual) if these changes were not effectively managed (Page, 2011, 2016) Earlier work we have undertaken in relation to simple residential dwellings identified that the costs of defects could on average be somewhere between 3% to 10% of build costs based on (Mills et al., 2009; NZIER, 2020).</p> <p>The risks around defects go to the underlying economic cost. Safeguards are expected to try to manage this risk, which may result in changes in insurance costs to builders or consumers. However, any additional premium would be a transfer from builders/consumers paying the additional expense to insurers receive it as income for taking on the risk.²¹ This transfer may be part of allocating risks, while any resulting impact on defects would represent the overall nature of the resulting risk.</p>
4	<p>Potential for greater awareness to ease understanding of any adjustments to schemes that could be highlighted as part of campaigns (if insights are available at the point of the campaign).</p>		<p>No significant change to risk levels or allocation.</p>
5	<p>Risk will decrease to the extent that professionals' quality of work increases.</p> <p>Potential for greater awareness to ease understanding of any adjustments that could be highlighted as part of campaigns (if insights are available at the point of the campaign to feed in based on prior experience).</p>		<p>As noted above, the materiality of any risk reduction will depend on the campaign's effectiveness.</p>

²¹ Transfers represent a redistribution of resources within society and are not included in a CBA.

Practicality

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	If safeguards are effective and practices support management of risk so that it is no worse than the counterfactual, the change would support efficient operations where applied once established.	There will be effort required to set up and administer the self-certification scheme. Regulations will need to specify work that can be self-certified (prescribed in the PGD Act).	Self-certification of non-inspected work will vary by construction project due to the option being voluntary. Initial implementation costs and efforts need to be considered against potential improvements in efficiency once operating, though the extent of ongoing efficiencies will depend on take-up of the option, ability to manage risk, and effectiveness of safeguards as indicated above.
2	The distinct roles of self-certifiers and BCAs will ensure compliance with the scheme is clear and understood. If safeguards are effective and practices support management of risk so that it is no worse than the counterfactual, the change would support efficient operations where applied once established.	There will be effort required to set up and administer the self-certification scheme.	Self-certification of non-inspected work will vary by construction project due to the option being voluntary. Initial implementation costs and efforts need to be considered against potential improvements in efficiency once operating, though the extent of ongoing efficiencies will depend on take-up of the option, ability to manage risk, and effectiveness of safeguards as indicated above.
3	If safeguards are effective and practices support management of risk so that it is no worse than the counterfactual, the change would support efficient operations where applied once established. Once established, the option provides potential to ease pressures on BCAs.	There will be effort required to set up and administer the accreditation scheme. BCAs will be required to specify work that requires inspections. BCAs' specification of work that requires inspection may lead to inconsistencies across New Zealand and tension between BCAs and accredited businesses.	Some BCAs have existing fast-track paths that should increase the ease of adoption. Initial implementation costs and efforts need to be considered against potential improvements in efficiency once operating, though the extent of ongoing efficiencies will depend on take-up of the option, extent of potential savings, ability to manage risk, and effectiveness of safeguards as indicated above.
4			Some additional promotion required.
5			Some additional promotion required.

Inspections

Strategic fit

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>Supports Ministerial statements about government commitments to increasing the use of remote inspections and is consistent with the government's Build-for-Growth and Going for (Housing) Growth areas of focus.</p> <p>Supports efficiency in inspections through to CCC. This will support the objective to minimise delays and provide certainty around inspection wait times.</p> <p>Links to each outcome and impacts in the theory of change (outcomes A to C through increasing standardisation of inspection conventions and addressing common causes of inspection failure, outcome D particularly through guidance, and outcome E through monitoring and publishing wait times, with all aspects contributing to outcome F, and each linked to impacts I and II, with A to C linking to impact III through exposing and helping manage greatest areas of risk). Also links to the policy objective through greater standardisation, understanding of practices, monitoring and guidance.</p>		<p>Consistent and complementary to other regulatory initiatives being considered (such as BCA coordinating or sharing of services/functions or contracting out) as noted under quality of regulation criteria.</p> <p>Degree of additionality will depend on the extent of changes planned to guidance and what information is published relative to that at present, but it is anticipated these would be expanded and updated and supported by the other components of the policy option.</p>
2	<p>Consistent with Ministerial statements about government commitments to increasing the use of remote inspections as well as Build-for-Growth and Going for Growth housing areas of focus.</p> <p>Links to outcomes D, E and possibly F and impacts I and II in the theory of change (supporting innovation and indirectly through the focus and visibility of wait times with the intention of reducing them through supporting BCO inspection productivity, noting this depends on the extent to</p>	<p>Commits a level of outlay without knowing if systems and capability are the barrier nor how or if increased use of remote inspections will improve timeliness in practice given examples where</p>	<p>The degree to which benefits are achieved depends somewhat on availability of systems and capability being an important barrier to the use of remote inspections and that uptake of remote inspections can support reductions in wait times (despite instances where this has resulted in remote inspections taking longer). Given it would still be for the BCAs to consider when to use remote inspections and assuming support in the systems and capabilities supports their use where this will decrease inspection times as the practices are honed and bedded in.</p>

	<p>which remote inspection use can increase timeliness, though this has not always been the case in practice). Also links to the policy objective through supporting innovation and efficiency of inspections by ensuring BCAs are set up to use remote inspections where they will add value.</p> <p>Supports flexibility and the use of an approach to improve efficiency of inspections. This will support flexibility of inspections and could improve timeliness of inspections and minimise delays if developed and applied with better success than some of the case studies to date.</p> <p>Requiring BCAs to have the systems and capability to conduct remote inspections will likely induce uptake in their use more than Option 1, though Option 1 may address other opportunities for minimising delays.</p>	<p>the opposite has occurred.</p>	<p>Potentially complementary to other regulatory initiatives being considered (such as BCA coordinating or sharing of services/functions or contracting out), though requires coordination across changes to avoid potential sunk costs and efficient transition to any new arrangements.</p>
3	<p>Consistent with government commitments to increasing the use of remote inspections as well as the intent of Build-for-Growth and Going for Growth housing areas of focus.</p> <p>Links to outcomes A, D, E and possibly F and impacts I and II in the theory of change (supporting standardisation, innovation and indirectly through the focus and visibility of wait times with the intention of reducing them through supporting BCO inspection productivity, noting this depends on the extent to which standardised remote inspection use can increase timeliness, though this has not always been the case in practice). Also links to the policy objective through supporting innovation and efficiency of inspections assuming that the cases for when it is to be applied can be appropriately specified, noting this appears to be a significant task to achieve.</p> <p>Requires the use of an approach aimed to improve efficiency of inspections.</p>	<p>Commits a level of outlay without knowing if systems and capability are the barrier nor how or if increased use of remote inspections will improve timeliness in practice given examples where the opposite has occurred.</p> <p>As noted in the commentary, it could achieve the opposite of what is intended or have little impact and is dependent on the opportunity and ability</p>	<p>The degree to which benefits are achieved depends somewhat on the ability of remote inspections to support reductions in wait times (despite instances where this has resulted in remote inspections taking longer) as the practices are honed and bedded in.</p> <p>Requiring BCAs to use remote inspections as the default approach may result in the highest uptake. As with Option 2, this could support minimising delays in inspections. However, depending on the choice of design for where these are used as a default, it may not significantly impact delays or at worst could exacerbate delays at least during the transition in uptake. A deterioration could occur if the default is to use remote inspection in cases that in practice require more effort and time to inspect remotely, for example resulting in re-inspections, additional information requests or taking longer due to difficulties using the approach, than is actually saved, for example through travel time or cost.</p> <p>Potentially complementary to other regulatory initiatives being considered (such as BCA coordinating or sharing of services/functions or contracting out), though requires coordination across changes to</p>

		to specify appropriate mandatory use cases.	avoid potential sunk costs and ensure efficient transition to any new arrangements.
4	Links indirectly to outcome F (if results in better information provision) and impacts II and III in the theory of change. Also links to the policy objective through supporting efficiency of inspections by similarly ensuring appropriate information is provided. Strength of links may be less than for other criteria but like Option 1 also links to impact III.	We are not aware that deceptive behaviour is a material issue at present so this could impose a cost for little gain, but we note that the option could support managing risks that could emerge with increases in remote inspections.	Unlikely to significantly impact delays or inspection wait times. However, it would complement other initiatives to support the use of remote inspections and could reduce the need for additional information or re-inspections.
5	<p>Consistent with the government's Build-for-Growth and Going for Growth housing areas of focus. Links indirectly to outcome F (if results in better information provision) and impacts II and III in the theory of change.</p> <p>Also links to the policy objective through supporting efficiency of inspections by similarly ensuring appropriate information is provided. Strength of links may be less than for other criteria but like Option 1 also links to impact III.</p> <p>Would provide a strong incentive to seek reductions in wait times and improve efficiency of inspections, especially when looked at alongside published data on wait times for comparison as well as other measures from Option 1 to support improvements.</p>	There is a risk that if the KPI is set below what some BCAs have already achieved, this may lead to deterioration in inspection wait times for those BCAs as they may focus on simply meeting the target rather than maintaining performance when it comes to operational decisions such as resourcing.	<p>Will set KPIs that BCAs will need to show they have systems in place to meet. This should provide strong incentives to minimise delays and provide flexibility and inspection wait time certainty. The degree of impact will depend on: 1) the distribution of current wait times relative to the performance set under the KPI, and 2) the opportunities available to BCAs to improve efficiency and wait times.</p> <p>The first is relevant to whether there are incentives to improve or alternatively the potential for BCAs to instead focus purely on meeting the lower KPI when making decisions rather than continuing to provide performance that may exceed the KPI, noting that publishing this information will in itself provide an incentive to not stand out in terms of poor performance and ideally maintain or continually improve performance.</p> <p>The second will also depend somewhat on the ability of BCAs to influence the actions of other stakeholders, such as providing the necessary information.</p>

Efficient building system

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	Should improve understanding and certainty of requirements and processes, potentially reducing re-inspections and/or rework, and improve productivity and efficiency across building work and inspections through to CCC. Assuming success in this, it will support savings across the build process.		As noted under strategic fit: i) this option could complement any changes in relation to BCA operational arrangements, and ii) the degree of additionality will depend on the extent of changes planned to guidance, what information is published relative to that at present, and also the level of engagement by buildings and industry participants.
2	<p>Councils retain their discretion on when to use remote inspections, so the use of remote inspections should be targeted to where gains are greatest.</p> <p>Option would improve flexibility and could support investment in technological solutions that have the potential to reduce wait times and as a result improve the efficiency of the building process and system.</p>	<p>Any uptake in the use of remote inspections may not reduce consenting time or cost as the time taken to complete a remote inspection to date has been the same or longer, though this may represent a transitional issue. There may be some investments or changes in resourcing needed.</p> <p>If this option requires investments: i) in systems and capabilities associated with remote inspections that are not actually used, or not sufficiently to justify the investments, or ii) by BCAs that subsequently merge or outsource functions (as may be further supported by other regulatory initiatives), there is a risk of introducing an unnecessary cost for those cases.</p>	Better enables BCAs to manage their own liability than Option 3.
3		It will be difficult to specify the appropriate low-risk applications where this should be used as the default approach. There is therefore a risk that some BCAs are required to use remote inspections where they are not suitable, reducing efficiency through additional time or costs, as has occurred in some examples to date, but noting certain exceptions are allowed for. For instance, misuse of remote inspections could lead to issues being missed which could lead to building defects and	Similar to options 1 and 2 but more confidence nationally that investments will be utilised. Beyond where specified as the default approach, there will still be the option to use remote inspection voluntarily where it is not specifically the “default” approach. Under this option, costs are likely to be highest for BCAs currently doing no or little remote inspections.

		<p>consequent negative impacts on owners and liability implications for BCAs.</p> <p>Option 3 may also need additional staff to be trained in remote inspections beyond Option 2 (if Option 2 simply requires some level of capability).</p>	
4			<p>Unlikely to directly improve productivity, save time or reduce costs during the inspection process through to CCC unless this reduces re-inspections or the time needed for individual inspections to a significant extent as a result of encouraging better quality information provision at the start.</p> <p>While there is a conceptual case in encouraging quality information from the start, we do not have evidence to support a strong impact in our assessment.</p>
5	<p>Seeking councils to keep wait times within KPIs may provide additional incentives to improve efficiency and encourage innovation and monitoring of performance, resourcing and operations.</p>	<p>However, current and anticipated wait times suggest that setting KPIs may not result in material improvements in productivity, time or cost savings, though increases in activity would place additional pressures that would require early consideration.</p> <p>Further, if the KPI is set below current performance there may be an incentive to simply maintain the “necessary” performance for the KPI, as noted under strategic fit.</p>	<p>Impacts depend on the ability to support improvement in wait times relative to the counterfactual.</p> <p>May make BCAs more confident in using remote inspections.</p>

Quality regulation

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>The provision of guidance, information, training and understanding of common causes of failure as well as standard processes supports clear and consistent requirements.</p> <p>Updating guidance and providing training will provide clarity to inspectors and builders, and standardising inspection conventions will provide clarity and consistency across the sector.</p> <p>Further, identifying and addressing any known issues is consistent with continual improvement.</p> <p>Provides targeted and proportionate responses to identified problems and supports their application by BCAs and the industry.</p> <p>Supports the evidence base for understanding performance across the system and targeting guidance and support for areas where issues are greater or there is the most opportunity.</p> <p>Consistent and complementary to other regulatory initiatives being considered, particularly BCA coordinating or sharing of services or functions, or contracting out, where the intention is to enable use of optimal tools and operational settings that BCAs choose for the circumstances.</p>		<p>Consistent and complementary to other regulatory initiatives being considered, particularly BCA coordinating or sharing of services or functions, or contracting out, where the intention is to enable use of optimal tools and operational settings that BCAs choose for the circumstances.</p> <p>Here the provision of guidance, information, training and understanding of common causes of failure as well as standard processes supports clear and consistent requirements.</p>
2	<p>Requiring BCAs to have the systems and capability to conduct remote inspections should induce training and further</p>	<p>The case for remote inspections (possible unmet demand) or the extent to which capability and systems are the key barrier to uptake appears to be</p>	

	understanding of the remote inspection process.	largely anecdotal and does not clearly imply a need for regulatory intervention or going beyond Option 1. We have not seen strong evidence that capability or systems are the key constraint that would unlock offsetting benefits.	
3		Adds moderate complexity to the Building Act. Specifying the cases where use of remote inspections is mandatory could be difficult as cases would need to be more efficient and effective across BCAs and BCOs and potentially irrespective of the counterpart (industry provider/customer), factoring in the nature of the relevant building work/inspection. There may be confusion between various parties over the types of inspections required to be conducted remotely by default.	If the requirements are targeted at where there are clear opportunities for reducing delays by using remote inspections that are not currently being taken up then this would be positive. It may also be possible in setting the default applications to target such areas where there is a strong case for their use, however we are not aware what these are at this point.
4	Adds clarity to the Building Act by implementing regulation to prevent deceptive behaviour. May have value as a signalling tool. Consistent with efforts to drive stronger accountability from industry providers.	Increases regulation. Would require determining the scope of offence and potentially guidance on its application (i.e. what is the bar, when would it be applied, evidential requirements and resourcing the application of the offense). Also, its generally not considered best practice to regulate where practical use is considered challenging.	
5	Provides clarity and consistency of requirements across BCAs and supports certainty in the industry. Setting KPIs will provide clarity and consistency regarding the intended maximum wait times for builders, allowing them to plan ahead with confidence.	This could be done via non-regulatory means, allowing for ease of update.	The regulatory approach (rather than non-regulatory means) provides greater emphasis, being implemented through regulatory changes making it a requirement for accreditation that BCAs have policies and procedures that will ensure they meet the KPI. Together with Option 1, should support the means to achieve this.

Responsive settings

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	<p>Updating the guidance and providing training would support continual improvement by BCAs and builders.</p> <p>The guidance itself could also be responsive to adjustments and improvements over time.</p> <p>Monitoring and publishing wait times as well as identifying and addressing common reasons for inspection failure would facilitate feedback loops (that is, adjustments based on practical outcomes) and support continual improvement across the sector.</p>		
2	<p>Improves flexibility of the inspection process, particularly for BCAs that do not currently have the systems or capability to conduct remote inspections. It ensures those BCAs that may not have the systems and capability to conduct remote inspections are able to respond to opportunities and demands where appropriate to apply this approach (supporting a potential response that may not otherwise be immediately practical to all BCAs).</p>	<p>If the requirement were particularly onerous for certain BCAs or deterred any BCOs (from entry/continuing), this could have the impact of reducing the ability for these parties to respond.</p>	<p>Could be designed to allow for ongoing technology change and implemented to manage resourcing risks. The material that MBIE has shared with us to date appears to be technology neutral. This will be important and also to be outcomes rather than input-focused For example, there has been reference to images, video and livestream but in so far as possible it would be optimal if changes weren't needed to support newer technologies if say the likes of virtual reality technology allowed for remote inspections that were able to be substituted for in-person inspections with even greater confidence and ease).</p>
3		<p>Will limit BCAs' discretion in using remote inspections (the extent of which depends on what the defaults are), reducing their flexibility.</p> <p>The default requirements could lead to BCAs deferring to nationally specified defaults at the expense of considering the optimal applications and</p>	

		<p>practices in their circumstances (e.g. available technologies, capabilities and demands), slowing or limiting BCAs' responsiveness to opportunities but also potentially muting internal feedback loops including around risks (though the exemptions are designed to enable risk-management).</p> <p>Continual improvement in this area may be more reliant on changes to when remote inspections are required to be used (although any increase in application may also be associated with increased voluntary use outside where it is specifically required).</p>	
4	The new offense could lead to better information about level of deception in industry practices.		No material change to ability to respond.
5	Setting KPIs for inspection wait times may drive continual improvement and incentivise BCAs to reduce inspection wait times. To meet accreditation requirements, BCAs may elect to more explicitly identify potential opportunities, consider trials, plan responses to unexpected demands and the like which could support reductions in wait times.	Being in regulation there may be some transition costs to adjusting these regulatory settings (e.g. the maximum wait times or the mechanism of being an accreditation requirement),	By having a KPI this could create a focus on meeting the KPI rather than projecting expected needs and responding as circumstances may change.

Risk

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	The non-regulatory measures should support builders to improve their management of risk by addressing reasons for inspection failures.	Could be a risk that standardising conventions undermines certain individual risk management approaches (though seems more likely to be effort	

	<p>Also supports BCAs (and others) in understanding common failures, having standard conventions and having updated guidance on the use of remote inspections. No change to risk allocation expected but greater central support.</p> <p>In standardising conventions, there may be the ability to pick support best practices in risk management.</p>	to transition and ensure effective risk management practices apply),	
2	<p>Any resulting increase in remote inspection could risk greater non-detection of non-compliant work if the targeting of use and individual applications are not effective. For a 0 score, BCAs discretion on use (as is the case at present) needs to be sufficient to mitigate any increase in risk from increased uptake (i.e. this assumes uptake is supported that is of similar risk to the situation currently/under the counterfactual). If the continued discretion is not sufficient in managing risks from increased resulting use of remote inspections, then a - score is warranted.</p>		Option 4 could be intended to be implemented alongside Option 2 to manage any increase in risk.
3		<p>Depending on where remote inspection are required (and how they are applied), this could limit the ability for BCAs to identify and proactively address matters that could become issues at later stages of the build. As a result, this could increase the risk of need for re-work post construction to rectify defects not picked up during inspections if BCAs do not retain discretion.</p>	<p>We expect there would not be a change to risk allocation under this option but may need to be considered further in how the default applications are specified and if this shifts any risk from BCAs to MBIE.</p> <p>Option 4 could be intended to be implemented alongside option 3 to manage any increase in risk.</p>
4	<p>Aims to mitigate risk by deterring deceptive behaviour, however instances of the building industry intentionally deceiving inspectors may</p>	<p>Potential challenges in applying this offense noted about could also limit its effectiveness in managing the risk of deceptive behaviour.</p>	

	be rare (though there could be scope for this to increase with an increased use of remote inspections).		
5		Risks that either i) KPIs are set too low and BCAs become unwilling to accommodate urgent requests so as not to jeopardise their KPI metrics or in meeting metric short-cuts are taken that introduce risks, or ii) if KPIs are set below current practice, there is a risk that some BCAs adjust their decision-making in a way that is anchored more in ensuring the KPI is met, even if that results in a reduction in service (e.g. instead of resourcing to maintain no wait time, relax resourcing to simply to meet the KPI, thereby inducing a wait time that otherwise might not have been allowed). However, the intended regulatory approach should reduce this risk (e.g., allowance for exceeding targets a portion of the time, focusing on having the systems intended to meet the targets).	Could result in risk being about the same as under the counterfactual if wait times published from early on and mechanisms to support meeting the KPI are available and clear.

Practicality

7. **Practical:** is feasible, practical, and can be implemented and complied with efficiently.

To assess this, we considered the extent to which (relative to the counterfactual) an option:

- a) can practically be implemented and minimises transition costs, and/or
- b) supports efficient operation once established.

Option	Positives	Negatives	Key uncertainties, assumptions and design choices
1	Feasible and practical and expected to support efficiencies in consenting, particularly relating to inspections, industry practices and information provision.	Updating guidance and providing training will involve some MBIE resources and costs to BCAs associated with inputting on material, and considering it and its application (with potential costs to builders/industry wishing to keep up with changes – e.g. understand common failures). Monitoring and publishing wait times may lead to some additional compliance costs for BCAs due to the effort required to collate the data.	
2	Some BCAs may be able to recover investment costs through efficiency gains over time. Feasible and practical to implement and operate.	BCAs will incur additional implementation costs (IT, software, training and developing policies and procedures).	Efficiency will depend on the extent to which investments are required that end up having little use.
3	BCAs may recover some investment costs through efficiency gains over time	There may be practicality issues in terms of identifying and designing the default situations that should be targeted for when remote inspections will be required (given differences across BCAs/builds) as well as implementation and compliance (given the availability of understandable quite wide exemptions). Some BCAs may incur additional implementation costs (IT, software, training and developing policies and procedures).	Efficiencies will depend on the design in terms of selection and application of when remote inspection is to be used as a default approach.
4		BCAs may face practicality challenges in proving intent and could be unable to recover the costs associated with investigating and prosecuting offenses. However, even if seldom used the threat of a penalty itself may improve compliance	
5	Feasible and practical	Processes currently exist to collect and report on performance data, however establishing achievable KPIs without creating perverse incentives may be a challenge (though the envisaged approach of relating to accreditation requirements mitigates this somewhat). BCAs may also incur additional costs to implement measures to achieve KPIs.	Should support efficient practices unless it results in overly focusing on the KPI (rather than optimal decisions for particular circumstances under the intent of the regulatory system).

Appendix C CBA assumptions

This appendix states the core assumptions underpinning the CBA.

Modelling parameters

Table 19: Modelling parameters

Parameter	Value	Rationale
Discount rate	2% <i>Sensitivity: 8%</i>	Treasury guidance for public sector discount rate for non-commercial proposals.
Modelling time frame	FY2025 (year 0) to FY2035 (year 10) <i>Sensitivity: 20 year time frame</i>	Time frame to enable all policy impacts to take effect and is the time period that liability under the Building Act runs out. ²²
Policy in effect	FY 2027	Sapere assumption based on policy deadlines.

Volume assumptions

Table 20: Self-certification volume assumptions

Variable	Assumption	Source
Forecast of simple residential dwellings		
Detached residential dwelling forecast	Forecast of detached residential dwellings through to 2029 is observed from MBIE's national construction pipeline report. Years post 2029 use the 2028 to 2029 difference.	(MBIE, 2024e)
Proportion of buildings single storey	Weighted average for Auckland is 25%, Waikato/Bay of Plenty is 87%, Wellington is 47%, Canterbury is 58%, Otago is 85% and rest of New Zealand is 94%.	(BRANZ, 2025a, 2025b) and consenting data from Stats NZ
Low risk buildings	All single storey houses have an E2 risk rating equal to or less than six. Assumption based on single storey residential dwellings having an average risk rating of 3.0.	Sapere assumption based on BRANZ (2011)
Forecast of self-certifying professionals (Option 1)		
No. of plumbers from FY2020 to FY2024	Equivalent to the sum of certifying plumbers.	PGD annual reports from FY2020 to FY2024.
No. of drainlayers from FY2020 to FY2024	Equivalent to the sum of certifying drainlayers.	PGD annual reports from FY2020 to FY2024.

²² Terminal values are included to capture the residual impacts that extend beyond this analysis period e.g. houses provided.

Variable	Assumption	Source
Projections	Plumbers grow by 367 professionals each year, equal to (11,974 in FY2024 to 10,507 in FY2020)/four years. Drainlayers grow by 689 each year, equal to (9,947 in FY2024 to 7,193 in FY2020)/four years.	Sapere assumption with data from PGD annual reports
Self-certifying plumbers	30% of total plumbers will opt-in to self-certify (80% of certifying plumbers).	Sapere assumption with data from (PGD Board, 2024)
Self-certifying drainlayers	28% of total drainlayers will opt-in to self-certify (80% of certifying drainlayers).	Sapere assumption with data from (PGD Board, 2024)
Forecast of self-certifiers of entire builds (Option 2)		
Number of franchisees	117 franchisees sourced largely from the Master Builders register and supplemented with information from the parent company's website	(Master Builders, 2025)
Homes built by parent companies in the year to March 2024	GJ Gardner 824, Jennian Homes 230, Fletcher Residential 573, Mike Greer Homes 452, Golden Homes 262, Oakridge Homes Ltd 153, Venture Developments Ltd 143, Latitude Homes 134, Today Homes 109, Generation Homes 104, Barrett Homes Ltd 102, Trident Homes 88, EasyBuild Homes 88, and Sentinel Homes 88.	(Gibson, 2024)
Minimum number of simple residential dwellings required to join scheme	Only franchisees that built at least 10 simple residential dwellings in the year to March 2024 will join the scheme.	Sapere assumption
Non-franchised firms self-certified simple residential dwelling	Half of non-franchised firms' simple residential dwellings built will be self-certified.	Sapere assumption

Table 21: Inspections volume assumptions

Variable	Assumption	Source
Growth in consenting activity	Equal to the projected growth in the annual number of consents from 2024 to 2029 in the National Construction Pipeline Report. In subsequent years, the nominal absolute difference in the number of consents from 2028 to 2029 is applied. The Pipeline Report included estimates For Auckland, Waikato/Bay of Plenty, Wellington, Canterbury, Otago and Rest of NZ, which determined the mapping of estimated consent growth for each BCA.	(MBIE, 2024e)

Cost assumptions

Table 22: Self-certification cost assumptions

Cost category	Variable	Assumption	Source
Implementation costs			
Implementation	<i>Implementation costs</i>	Crown costs of \$250,000 for self-certification. Half is attributed to Option 1 and half to Option 2. We assume these are spread across FY2025 and FY2026.	(MBIE, 2023)
Self-certification scheme administration (Option 1)			
Set up costs	<i>Set up</i>	\$1,500,000 in CAPEX costs to set up PGDB database, based on actual costs of similar database recently implemented.	MBIE advice
Registration	<i>No. of applications</i>	Equal to the number of people applying to the scheme each year, see volume estimation.	Sapere calculation
	<i>Cost of entry requirements</i>	The cost of entry requirement is \$360 per application, equivalent to the cost of the entry exam.	(PGD Board, 2024)
	<i>No. of registrations</i>	Equal to the number of people applying to the scheme each year, see volume estimation.	Sapere calculation
	<i>Registration fee</i>	Registration fee is \$390.	(PGD Board, 2024)
Renewals	<i>No. renewals</i>	Equal to the total number of professionals in scheme each year, see volume estimation.	
	<i>Renewal fee</i>	<p>Renewal fees are estimated using information from the PGD annual report:</p> <ol style="list-style-type: none"> \$963,885 spent on registration and licensing Subtracting estimated expenditure on registration of \$654,810 (1,679 new members*\$390 registration fee) Implied expenditure on licensing of \$309,075 divided by 28,845 total members equals \$11 per licence for plumbers and drainlayers. <p>We note that staff salaries associated with renewals may not be covered in this cost category. However, we have allowed for additional staffing costs in other operating expenses.</p>	(PGD Board, 2024)
Investigation costs	<i>Probability generates an investigation</i>	The probability of a plumber and drainlayer facing an investigation is 0.26%. This figure is estimated using data from FY2020 to FY2024. We summed the number of investigations and divided by the number of professionals.	PGD annual reports from FY2020 to FY2024.
	<i>Cost per investigation</i>	The cost an investigation for all professionals is \$6,639. This figure is equal to PGD complaints and discipline expenditure of \$351,890 divided by 53 investigations in FY2024.	(PGD Board, 2024)

Cost category	Variable	Assumption	Source
Prosecution costs	<i>Probability generates a prosecution</i>	The probability of all professionals being prosecuted is 0.03%. This figure is estimated using data from FY2021 to FY2024. The number of prosecutions were summed and divided by the number of professionals.	PGD annual reports from FY2021 to FY2024.
	<i>Cost per prosecution</i>	The cost of a prosecution for all professionals is \$28,958. This figure is equal to expenditure on prosecutions of \$144,789 divided by the five prosecutions.	(PGD Board, 2024)
Audit costs	<i>No. audits</i>	The number of audits every year is estimated to be 5% of the number of professionals in the scheme.	MBIE advice
	<i>No. hours per audit</i>	About half an hour of time is expected per audit.	MBIE advice
	<i>Cost per hour</i>	\$250 per hour based on product certification body rates.	MBIE advice
Other costs	<i>Plumbers and drainlayers other operating expenses</i>	Other operating expense cost categories are equal to the reported expenditure in annual report divided by the 28,845 professionals for the year. Annual costs are equal to: <ul style="list-style-type: none"> • Personnel costs of \$87.48 per professional • Professional services of \$6.18 per professional • Information technology of \$7.86 per professional • Communications and industry consultation of \$10.94 per professional • Other admin expenses of \$17.11 per professional. 	(PGD Board, 2024)
Self-certification scheme administration (Option 2)			
Set up costs	<i>Set up</i>	\$600,000 in CAPEX costs to set up a new register to Te Pae, a new online portal.	MBIE advice
Registration	<i>No. applications</i>	Equal to the number of people applying to the scheme each year, see volume estimation.	Sapere calculation
	<i>Cost per application</i>	Cost per application is \$5,860, based on the cost to apply for the modular component manufacturing scheme.	(Parliamentary Counsel Office, 2025)
	<i>Days per assessor</i>	7 days for initial office assessment and 2 days for initial witnessing.	MBIE advice
	<i>Cost per assessor</i>	\$2,352 per day (inflated from \$2,000 estimate in 2021).	MBIE advice
Investigation costs	<i>Probability generates an investigation</i>	The probability of an investigation for Option 2 is assumed to be equivalent to Option 1—0.26%.	Sapere assumption
	<i>Cost per investigation</i>	The cost an investigation for Option 2 assumed to be equivalent to 5x the cost for Option 1—\$6,639. Costs are driven by the volume of simple residential dwellings built by self-certifiers of entire builds.	Sapere assumption

Cost category	Variable	Assumption	Source
Prosecution costs	<i>Probability generates a prosecution</i>	The probability of a prosecution for Option 2 is assumed to be equivalent to Option 1—0.03%.	Sapere assumption
	<i>Cost per prosecution</i>	The cost a prosecution for Option 2 assumed to be equivalent to 5x Option 1—\$144,789. Costs are driven by the volume of simple residential dwellings built by self-certifiers of entire builds.	Sapere assumption
Audit costs	<i>No. audits</i>	The number of audits every year is equal to the number of scheme participants two years prior i.e. self-certifiers are audited every two years, starting two years after they are certified.	
	<i>No. days per audit</i>	Three days are required per audit.	Sapere assumption based on previous work.
	<i>Cost per day</i>	Daily cost of audit is based on the daily audit cost of the modular manufacturing scheme.	(Parliamentary Counsel Office, 2025)
Other costs	<i>Other operating expenses</i>	Total expense cost categories are equal to those described for Option 1.	(PGD Board, 2024)

Compliance costs (Option 1)

Cost of preparing registrations	<i>No. registrations</i>	Equal to the number of people applying to the scheme each year, see volume estimation.	Sapere calculation
	<i>Hours to prepare registrations</i>	Eight hours of time required to prepare each registration.	Sapere assumption from prior work
	<i>Cost per hour</i>	\$120 per hour, equal to the average cost of a plumber's time.	(Extreme Plumbing, 2024)
Cost of preparing renewals	<i>No. renewals</i>	Equal to the total number of professionals in scheme each year, see volume estimation.	Sapere calculation
	<i>Hours to prepare renewal</i>	One hour of time required to prepare each renewal.	Sapere assumption from prior work
	<i>Cost per hour</i>	\$120 per hour, equal to the average cost of a plumber's time.	(Extreme Plumbing, 2024)

Compliance costs (Option 2)

Cost of preparing registrations	<i>No. registrations</i>	Equal to the number of volume builders joining scheme, see volume estimation.	Sapere calculation
	<i>Cost of registration</i>	Assumed equal to MBEs cost per application - \$5,860.	Sapere assumption from prior work
Audits (compliance cost to be audited)	<i>No. Audits</i>	The number of audits every year is equal to the number of scheme participants two years prior i.e. self-certifiers are audited every two years, starting two years after they are certified.	Sapere calculation

Cost category	Variable	Assumption	Source
	<i>No. days per audit</i>	Three days are required per audit.	Sapere assumption based on previous work
	<i>Persons required per audit</i>	Two LBPs are required per audit.	Sapere assumption
	<i>Cost per person</i>	\$72.50 per hour of an LBPs time.	(Builder Connect, 2024)
Construction costs brought forward			
Construction costs brought forward	<i>No. of RFI line items</i>	The number of RFI line items is equal to the number of simple residential dwellings built in a year multiplied by the average number of RFI line items per consent. The average number of RFI line items is 28.5.	Average RFI number from ModelDocs (2024)
	<i>RFI line items avoided</i>	Equal to RFIs missing, obscured, or incorrect (81%) multiplied by those related to LBPs (70%) multiplied by an adjustment factor (50% - Sapere assumption) for those that will remain.	Missing, obscured, or incorrect RFIs and RFIs related to LBPs from ModelDocs (2024)
	<i>Days delayed per RFI</i>	0.93 days delayed per RFI line item, a simple average of Auckland (1.2) and Tauranga (0.7).	(ModelDocs, 2024)
	<i>Difference in time value of money</i>	Average construction cost of a simple residential dwelling is equal to \$585,114. Estimated as the average square metres for a 2-bedroom house (156 sqm), multiplied by the cost per square metre of \$3,750. The difference in time value of money per day is equal to the treasury discount rate of 2% multiplied by \$585,114, divided by 365. Equal to \$32.06 a day.	(Joiner, 2022)

Table 23: Inspections cost assumptions

Cost category	Variable	Assumption	Source
Regulatory implementation costs			
Regulatory implementation	<i>No. of FTE</i>	Two FTE for two weeks.	MBIE advice
	<i>Cost per FTE</i>	Salary per FTE of \$102,000 plus 50 per cent loading factor. Effective two-week salary per FTE = $(\$102,000 / 52 * 2) = \$3,923$.	Salary from (Public Service Commission, 2024)
	<i>Total cost</i>	\$5,885.	
Non-regulatory implementation costs			
Collecting and	<i>No. of FTE</i>	0.25 FTE from each BCA required to collect and publish wait time data (ongoing).	Sapere assumption

Cost category	Variable	Assumption	Source
publishing wait time data	<i>Cost per FTE</i>	Salary per FTE of \$102,000 plus 50 per cent loading factor.	Salary from (Public Service Commission, 2024)
	<i>Total annual cost</i>	\$38,250.	
Reporting against wait times	<i>No. of FTE per BCA</i>	Three hours per quarter per BCA, assuming quarterly reporting.	Sapere assumption
	<i>Cost per FTE</i>	Salary per FTE of \$102,000 plus 50 per cent loading factor.	Salary from (Public Service Commission, 2024)
	<i>Total annual cost</i>	\$52,183.	
IT set up costs to enable BCAs to report on wait times	<i>No. of IT contracting FTE per BCA</i>	We assume required IT configuration tasks to enable BCAs to report on wait times would be contracted out. We estimate that the time and tasks would be minor, and would involve: <ul style="list-style-type: none"> analyst time to review scope requirements (four hours). IT configuration involving technical changes to system fields, forms and reporting (eight hours) testing/QA for general assurance and checking reporting (two hours). 	Sapere assumption
	<i>Cost per IT contracting FTE</i>	\$200 per hour.	Sapere assumption
	<i>Total cost</i>	\$2,800 per BCA, \$187,600 total cost.	
Reviewing and updating existing guidance on remote inspections	<i>Total cost</i>	\$50,000.	MBIE advice
Standardising inspection conventions	<i>Total cost</i>	\$80,000.	MBIE advice
Addressing common causes of failure	<i>Total annual cost</i>	\$80,000 in year one, \$100,000 in year 2, \$50,000 in subsequent years.	MBIE advice, Sapere assumption
	<i>No. of FTE</i>	0.5 FTE at each BCA for one year.	Sapere assumption

Cost category	Variable	Assumption	Source
Developing training	<i>Cost per FTE</i>	Salary per FTE of \$102,000 plus 50 per cent loading factor.	Salary from (Public Service Commission, 2024)
	<i>Total cost</i>	\$76,500.	
Compliance costs			
Compliance costs	<i>Current inspector FTE</i>	Equal to the number of BCOs in each BCA listed in the ModelDocs report.	(Anthony et al., 2024)
	<i>Growth in consenting activity</i>	See 'growth in consenting activity' in Table 21.	(MBIE, 2024e)
	<i>Cost per inspector</i>	Annual salary + overheads = \$200,000.	MBIE advice

Benefits assumptions

Table 24: Self-certification benefit assumptions

Benefit category	Variable	Assumption	Source
Faster construction completion from avoided inspections			
Faster construction completion from avoided inspections	<i>No. inspections avoided</i>	<ul style="list-style-type: none"> No. of simple residential dwelling built estimated in the volume estimation There are four plumbing and drainlaying inspections per simple residential dwelling (sourced from MBIE) There are an average of 12 inspections per simple residential dwelling (sourced from MBIE) Self-certifying plumbers and drainlayers choose to self-certify 50% of inspections in number of simple residential dwellings estimated (Sapere assumption) 	Information from MBIE and Sapere assumption
	<i>Proportion that would have failed</i>	<ul style="list-style-type: none"> 50% of plumbing and drainlaying inspections would have failed. 40% of all inspections fail. 	(MBIE, 2024a; McWha, 2020)
	<i>Delay per failed inspection</i>	4 days delayed per failed inspection. This figure is based on the average wait time for an inspection. It can be viewed as the number of days a project is delayed when an inspection fails.	(Chittock, 2022)
	<i>Adj. for serious compliance issues</i>	Serious compliance issues represent 23% of failures.	(BRANZ, 2015)
	<i>\$ of benefit</i>	For benefit to homeowners: average rents in each region are: <ul style="list-style-type: none"> Auckland \$640 per week 	(BRANZ, 2012; Greene, 2024)

Benefit category	Variable	Assumption	Source
		<ul style="list-style-type: none"> • Waikato/Bay of Plenty \$560 per week • Wellington \$635 per week • Canterbury \$550 per week • Otago \$573 per week • Rest of New Zealand of \$540 per week. <p>For benefits to professionals: Builders' savings per week of time saved is \$1,300 in 2012 dollars. This is equal to \$2,047 per week in 2024 dollars using the RBNZ's inflation calculator.</p>	

Faster construction completion from avoided RFIs

Faster construction completed from avoided RFIs	<i>No. of RFI line items</i>	The number of RFI line items is equal to the number of simple residential dwelling built in a year multiplied by the average number of RFI line items per consent. The average number of RFI line items is 28.5.	Average RFI number from ModelDocs (2024)
	<i>RFI line items avoided</i>	Equal to RFIs missing, obscured, or incorrect (81%) multiplied by those related to LBPs (70%) multiplied by an adjustment factor (50% - Sapere assumption) for those that will remain.	Missing, obscured, or incorrect RFIs and RFIs related to LBPs from ModelDocs (2024)
	<i>Days delayed per RFI</i>	0.93 days delayed per RFI line item, a simple average of Auckland (1.2) and Tauranga (0.7).	(ModelDocs, 2024)
	<i>\$ of benefit</i>	As above for faster construction completion from avoided inspections.	

Table 25: Inspections benefit assumptions

Benefit category	Variable	Assumption	Source
Faster construction completion			
Average breakeven time reduction (days)	<i>PV total costs</i>	Includes compliance costs and all other costs described.	Sapere calculation
	<i>PV total construction value</i>	Scenario 1: <ul style="list-style-type: none"> • Annual value of all new construction nationally • FY2025 as base year • Subsequent years increased based on growth in consenting activity. Scenario 2: <ul style="list-style-type: none"> • Annual value of all new construction in non-compliant BCAs. • FY2025 as base year • Subsequent years increased based on growth in consenting activity. 	(Stats NZ, 2025)
	<i>Annual cost of capital</i>	7%, reflecting the typical hurdle rate for private sector investment and opportunity cost of funds.	Sapere assumption

Appendix D Costs breakdown

Self-certification

The self-certification scheme administration costs can be further broken down by cost category. The breakdowns are presented below.

Table 26: Self-certification scheme administration costs (\$ millions)

		Option 1	Option 2
Set up costs		1.5	0.6
Registration	Administer competency check	3.2	0.5
	Process registrations	3.5	0.1
	Subtotal	6.7	0.6
Ongoing operations	Renewals	0.6	0.1
	Audit costs	0.4	0.4
	Investigations	1.0	0.4
	Prosecutions	0.5	0.2
	Subtotal	2.5	1.1
Other operating expenses	Personnel	5.3	5.3
	Professional services	0.4	0.4
	Information Technology	0.5	0.5
	Communications and industry consultation	0.7	0.7
	Other administration expenses	1.0	1.0
	Subtotal	7.9	7.9
Total self-certification scheme administration		18.6	10.1

The self-certification compliance costs breakdown is shown in Table 27 below.

Table 27: Self-certification compliance costs (\$ millions)

	Option 1	Option 2
Application preparation	8.6	0.1
Renew applications	6.2	0
Audits	0	0.2
Total compliance costs	14.8	0.4

Inspections

Non-regulatory implementation costs for inspections are broken down below.

Table 28: Inspections non-regulatory implementation cost breakdown (\$ millions)

Costs		Option 1 & 5
Non-regulatory implementation	Collecting and publishing wait time data	0.3
	Reporting against wait times	0.5
	IT set up costs to enable BCAs to report on wait times	0.2
	Reviewing and updating existing guidance on remote inspections	0.05
	Standardising inspection conventions	0.08
	Addressing common causes of failure	0.5
	Developing training	0.08
	Total	1.7

Appendix E Breakeven defects calculation

The following section explains the calculation of the breakeven defects calculations.

Maximum increase in defects for Option 1 to breakeven

The maximum increase in defects for self-certifying plumbers and drainlayers is estimated as follows:

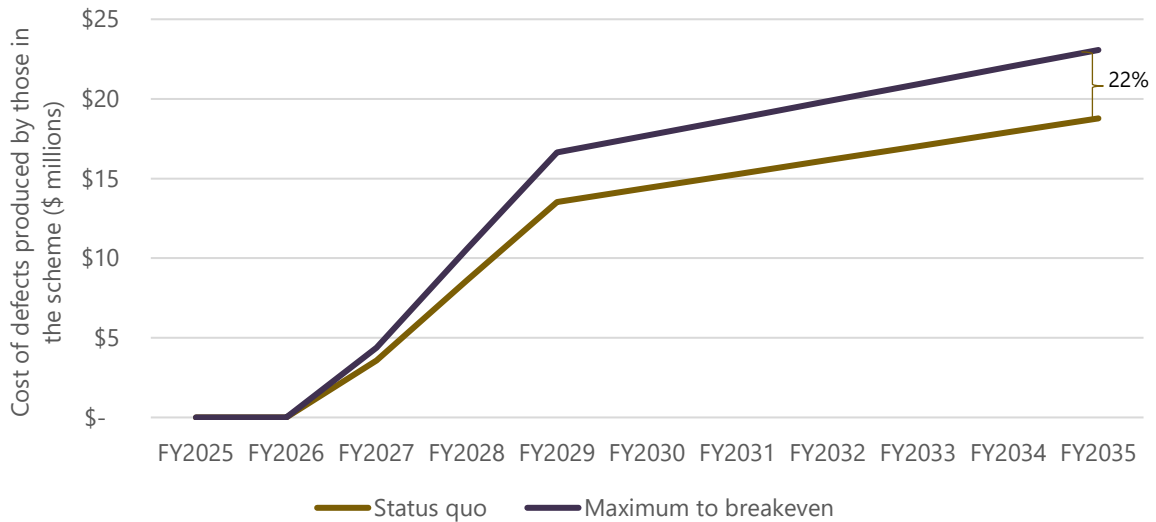
1. Estimate the average cost of a simple residential dwelling
 - a. 156 square metres for a 2 bedroom houses (MoneyHub, 2024)
 - b. A cost of \$3,750 per square metre
 - c. Average cost of \$585,000.
2. Estimate the current cost of defects as a proportion of buildings
 - a. \$585,000 multiplied by the current cost of defects of 6 per cent (NZIER, 2020) equals \$35,100.
3. Estimate the proportion related to plumbers and drainlayers
 - a. The five-year average of inspection failures relevant to plumbers and drainlayers is 12 per cent (Taylor, 2016) .
4. Estimate the current prevalence of defects for simple residential dwelling
 - a. Use the prevalence of defects in Auckland of 24 per cent (BOINZ submission)
 - b. Use the prevalence of defects in areas outside of Auckland 65 per cent (extrapolated from BOINZ submission using the New Zealand average)
 - c. Estimate the weighted average prevalence in each year using the prevalence of defects from above and locations of simple residential dwellings being built. The weighted average grows from 58.7 per cent in FY2025 to 62.1 per cent in FY2035.
5. Estimate the cost of counterfactual defects in each year from plumbers and drainlayers
 - a. The current cost of defects (\$35,100) multiplied by the proportion related to plumbers and drainlayers (12 per cent) multiplied by the prevalence of defects for simple residential dwelling in each year.
6. Attribute the counterfactual defects each year to plumbers and drainlayers that would become self-certifiers
 - a. Plumbers and drainlayers in the scheme represent 36 per cent of all plumbers and drainlayers, suggesting that they would account for approximately 36 per cent of all plumbers and drainlayers defects.
7. Estimate the proportion that this counterfactual cost could increase each year and still breakeven, i.e. for costs to equal \$19.2 million
 - a. The result is 22 per cent increase each year to breakeven.

We note that this breakeven figure should be viewed as indicative only. It relies on high level data and attributes the cost of defects to plumbers and drainlayers evenly. In practice, the current levels of

defects potential self-certifying plumbers and drainlayers is highly uncertain and likely to vary significantly by practitioner.

The graph below summarises the result. There are no defects attributed to scheme participants in the scheme before FY2027 because there will no professionals in the scheme.

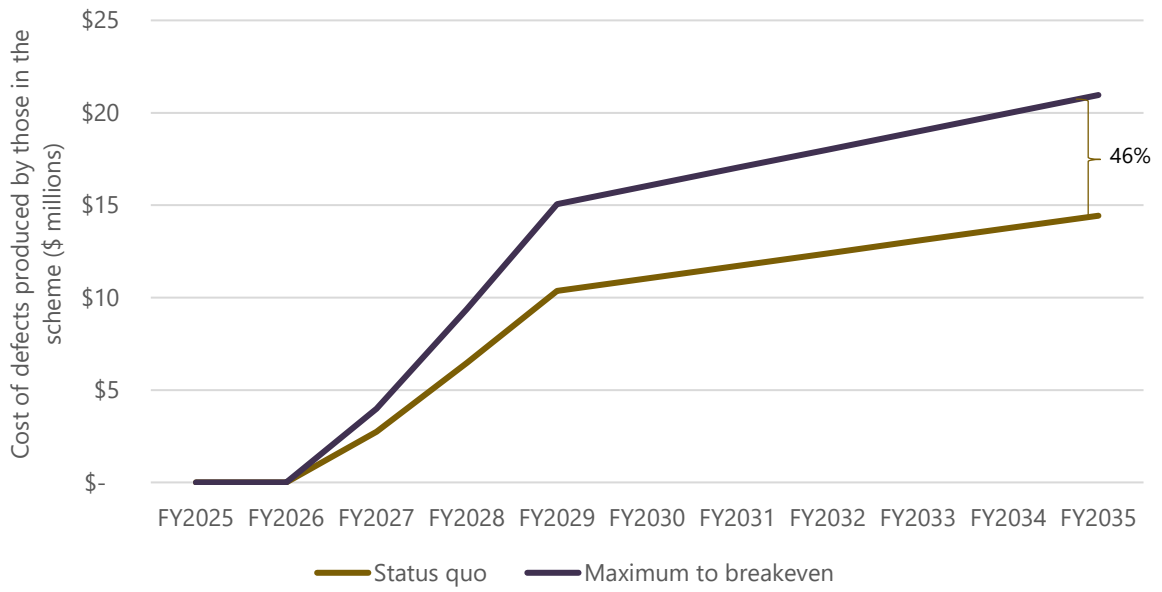
Figure 18: Breakeven level of additional defects Option 1



Maximum increase in defects for Option 2 to breakeven

1. Estimate the current cost of defects per simple residential dwelling (as above, equal to \$35,100).
2. Estimate the cost of defects for simple residential dwelling built by those in the scheme
 - a. Use the number of simple residential dwelling built by those in the scheme
 - b. Multiply by the cost of defects per simple residential dwelling
 - c. Multiply by the prevalence of defects (as above, ranging from 58.7 per cent to 62.1 per cent as described for option 1).
3. Estimate the proportion that this counterfactual cost could increase each year to breakeven
 - a. Could increase by 46 per cent and still breakeven.

Figure 19: Breakeven level of defects Option 2



About Sapere

Sapere is one of the largest expert consulting firms in Australasia, and a leader in the provision of independent economic, forensic accounting and public policy services. We provide independent expert testimony, strategic advisory services, data analytics and other advice to Australasia’s private sector corporate clients, major law firms, government agencies, and regulatory bodies.

‘Sapere’ comes from Latin (to be wise) and the phrase ‘sapere aude’ (dare to be wise). The phrase is associated with German philosopher Immanuel Kant, who promoted the use of reason as a tool of thought; an approach that underpins all Sapere’s practice groups.

We build and maintain effective relationships as demonstrated by the volume of repeat work. Many of our experts have held leadership and senior management positions and are experienced in navigating complex relationships in government, industry, and academic settings.

We adopt a collaborative approach to our work and routinely partner with specialist firms in other fields, such as social research, IT design and architecture, and survey design. This enables us to deliver a comprehensive product and to ensure value for money.

For more information, please contact:

Angus White

Mobile: +64 21 130 2174

Email: awhite@thinkSapere.com

Wellington	Auckland	Sydney	Melbourne	Canberra	Perth	Brisbane
Level 9 1 Willeston Street PO Box 587 Wellington 6140	Level 20 151 Queen Street PO Box 2475 Shortland Street Auckland 1140	Level 18 135 King Street Sydney NSW 2000	Level 11 80 Collins Street Melbourne VIC 3000	GPO Box 252 Canberra City ACT 2601	PO Box 1210 Booragoon WA 6954	Level 18 324 Queen Street Brisbane QLD 4000
+64 4 915 7590	+64 9 909 5810	+61 2 9234 0200	+61 3 9005 1454	+61 2 6100 6363	+61 8 6186 1410	+61 7 2113 4080

www.thinkSapere.com

independence, integrity and objectivity