

Cost Benefit Analysis Template

Section A Descriptive Information

Vote	Māori Development
Responsible Minister	Hon Te Ururoa Flavell
Initiative title	Improving access to secure and healthy housing by whānau Māori

Funding Sought (\$m)	2015/16	2016/17	2017/18	2018/19	2019/20 & outyears	TOTAL
Section 9(2)(g)(i)						

Problem Definition

Māori have long been over represented in housing deprivation statistics

Providing sufficient, decent accommodation for those who are unable to afford housing on the open market has long been a challenge for the Government. This is especially so for Māori. Research shows that:

- 11,730 of Māori experience severe housing deprivation. This includes, 1,290 homeless, 235 in emergency accommodation, 1,056 in commercial accommodation and on marae and 9,149 in severely crowded permanent private dwellings¹.
- 63,693 Māori (10% of Māori) live in social housing while 229,977 Māori (36.1% of Māori) live in private rental dwellings. 280,074 Māori (44% of Māori) live in a home owned by one or more of the members of the household².

This has an impact on the social and economic achievement of whānau

Housing has an important role in breaking cycles of poverty and dependence. Secure, healthy housing has been proven to contribute to community participation, continuity of school attendance and higher educational achievement, and leads to better health, justice and employment outcomes.

The particular circumstances of whānau who could be considered severely deprived will vary, however an analysis of 2013 census data shows that these households include:

- Large whānau units with a number of dependent children.
- Low income whānau, with some or all working age whānau members reliant on the unemployment benefit.
- Households living in crowded dwellings.

A Māori Housing Network has been established

The Māori Housing Network was set up in Te Puni Kōkiri in 2015, with the aim of helping whānau, hapū and iwi Māori realise their housing aspirations and work towards a better quality of life for whānau Māori. It was formally launched on 3 October 2015.

The Māori Housing Network targets whānau and communities with high levels of housing need that are not being reached by other government housing programmes. In doing so, the Māori Housing Network is supporting the growth and development of the Māori Housing sector and providing tailored and informed interventions for whānau in need.

Its current focus is on projects which are generally outside the larger centres, are often on Māori land, or other land owned by smaller Māori entities, and are aimed at helping communities find their own solutions.

¹ Amore K, Viggers H, Baker, MG, & Howden-Chapman, P (2013). Severe housing deprivation: The problem and its measurement, Official Statistics Research Series, 6.

² Census 2013, Statistics New Zealand

Further funding is needed to bring about meaningful change

At present, the Māori Housing Network has \$14.491 million per annum of funding available to assist a range of community-led housing initiatives that:

- Increase the supply of new housing suitable for whānau.
- Improve the quality of existing housing.
- Build the capability of trusts and other Māori housing providers to undertake papakāinga and collective housing, through the provision of workshops, meeting the costs of getting projects to a construction-ready state and providing access to practical expert housing assistance at the local level.
- Support emergency housing projects.

The current investment to improve Māori housing outcomes is very small. Further funding is needed to better leverage interest and demand within Māori communities and the Māori housing sector for community responses to housing challenges that will address long standing issues of housing deprivation and help the Māori housing sector realise its potential.

In the absence of new funding, the Māori Housing Network will only be able to support a limited number of very small scale projects which have a large, but isolated, impact on the lives of the whānau able to benefit. There is also a risk that momentum, confidence and scale in the Māori housing sector will slow, leaving it unable to realise achievable advances evidenced from existing outcomes at an optimum time in housing development for Government, housing providers/groups, and whānau Māori. As a result, many whānau with immediate housing need will not get the assistance they require.

Initiative Description

This initiative will achieve greater scale in Māori housing projects

This initiative will reach a greater number of vulnerable whānau who traditionally struggle to access other government housing assistance, and support the better use of Māori land. Secure and healthy housing is a critical component of whānau wellbeing and has been linked with positive outcomes in physical and mental health, education, employment and other social outcomes³.

It will improve access by whānau Māori to secure and healthy housing by increasing the scale of housing projects able to be supported by the Māori Housing Network. **Section 9(2)(g)(i)** leverage current interest and enthusiasm amongst

Māori roopu to invest in improving housing in their communities through:

- Māori-led small/medium scale housing projects with an emphasis on affordable rental homes as well as supporting emergency housing accommodation. This proposal would contribute grants for building up to 80 additional homes. These houses will generally be affordable rental houses owned by Māori land trusts, whānau collectives and other Māori entities, and rented to low income whānau. The initiative will also assist Māori emergency housing providers build or renovate suitable accommodation.
- community housing repair programmes that improve the quality of existing houses, generally owned by Māori collectives. This initiative would be able to contribute to projects for the repair of up to 108 additional homes.

These programmes fill a gap

The Māori Housing Network's housing supply and housing repair programmes are aimed at reaching whānau who are living in housing deprivation and who in some cases are at the margins of society. They may not be in a position to access other Government housing assistance, for example because they live in makeshift accommodation or because there is little or no social housing available in the area. This means supporting roopu who are acting for the long term benefit of their communities, who are able to make a significant contribution to the project (for example by providing land and/or taking out a loan), but who are unable to fully fund the project from either their own resources or commercial partners.

³ See CBAX template for an assessment of this proposal's impact based on New Zealand and international research.

The roopu the Māori Housing Network works with are generally not community housing providers (CHPs) because:

- The nature of the requirements CHPs have to meet can be considered onerous by small groups, who may have little infrastructure. While umbrella arrangements (e.g. a rūnanga might take on the formal obligations of a community housing provider) will work well for some, in other cases these are not practicable.
- Māori entities such as land trusts or incorporations may be interested in providing affordable rental housing for their beneficiaries but may not wish, or be able, to use the land they own to house the wider community.
- In some cases, trusts and other roopu may be leveraging off their own land which may be in rural or isolated locations not suitable for larger scale social housing.

Additional funding will enable the Māori Housing Network to:

- Expand these services to meet additional forecast demand.
- Improve geographic coverage.
- Help unlock more Māori land for affordable rental housing.

Alternative Options Considered

Section 9(2)(g)(i)

Section B Impact Analysis

Impact Analysis

Costs

The costs of this initiative are outlined in the table below. They are split according to the indicative allocation for each component of this initiative.

Cost (\$m)	2015/16	2016/17	2017/18	2018/19	2019/20 & outyears	TOTAL
Increase in grant funding to boost the supply of affordable rental housing	Section 9(2)(g)(i)					
Increase in grant funding available for improving the quality of existing housing through repair projects						

Section 9(2)(g)(i)

Benefits

This initiative will improve housing circumstances for whānau by ensuring they:

- Have a quality stable housing arrangement suitable to their needs in the case of increased supply of social rental and affordable housing.
- Live in houses that are warm, dry and have basic amenities in the case of housing repair programmes.

In turn, this can be expected to impact on a range of socio-economic factors and can play an important role in breaking cycles of poverty and dependence. The tables below detail the fiscal and public value benefits of the initiative in further detail.

Intervention	Benefit to whānau	Potential benefit to society
Increase the supply of social rental and affordable housing for whānau through partial grant funding	<ul style="list-style-type: none"> • Provision of shelter to those in need and reduced transience. • Improved mental and physical health from a healthier living environment (e.g. weather proof, reduced overcrowding). • Enhanced whānau well-being and community cohesion. • Greater education/training participation, with higher achievement. • Greater labour market participation. • Increased income levels. • Improved access to long term support for the cost of housing (through Accommodation Supplement payments). 	<ul style="list-style-type: none"> • Creation of a collective asset. • Greater capability within the Māori housing sector. • More effective social/affordable housing provision for whānau. • A healthier population leading to reduced health care services utilisation. • Greater labour market participation, reduced reliance on benefit income. • Lower levels of crime. • Reduced numbers of people “detached” from society. • Demonstration effect.
Improving the quality of existing housing for whānau through housing repair projects	<ul style="list-style-type: none"> • Enhanced whānau well-being and community cohesion. • Improved mental and physical health from a healthier living environment (e.g. weather proof, provision of basic amenities). • Increased asset value and an extended 	<ul style="list-style-type: none"> • Community renewal. • A healthier population leading to reduced health care services utilisation. • Reduction in future demand for social rental/affordable houses. • Lower levels of crime.

- economic life of a house.
- Greater education/training participation, with higher achievement.
- Increased income levels.

Intervention logic maps for this initiative are provided as Appendix 1. These have been used as the basis of the CBAX modelling described below.

Impact Summary Table

We have completed two separate CBAs using the CBAX Spreadsheet Tool – one for the component of the initiative aimed at increasing the supply of social rental and affordable housing for whānau, and one for improving the quality of existing homes for whānau through housing repair projects. The outputs of these are reported separately below, using 50 year NPV impacts, where option 1 reflects an 8% discount rate and option 2 reflects a 4% discount rate.

Impact Summary Table 1 - increasing the supply of social rental and affordable housing for whānau

Impacts - Identify and list \$m present value, for monetised impacts	Option/scenario		Assumptions and evidence (quantify if possible, and use ranges where appropriate)	Certainty
	1	2		
Estimated impact on key outcomes				
Whānau have a quality, stable housing arrangement	Section 9(2)(g)(i)		<p>Impact It is assumed that all whānau in our target cohort will move into a modern home that is affordable and that meets their current housing needs and aspirations.</p> <p>Commencement It is assumed that there is a 12 month delay between release of funding and when whānau can move into a home, to account for the construction period. This delay is evident in the phasing of the target population.</p>	Section 9(2)(g)(i)
Cost of the Initiative				
Fiscal operating costs of the initiative			80 whānau households per year for 4 years. A typical whānau household for this cohort is assumed to consist of 7 members - 4 working age adults, 2 school age children and 1 infant. ⁴	
Government Benefits/(Costs)				
Health			<p>Impact There is much evidence to suggest that poor housing leads to poor health. New Zealand statistics suggest that one in five Māori visit the emergency department in a year (or 20% of the population).⁵ We have taken a conservative assumption that these individuals only visit the emergency department once per year.</p> <p>We have assumed that all members of our whānau household will reduce their need to go to the emergency room by 75% through improved living environments and increased visits to the GP.</p> <p>Duration We have attributed 4 years of reduced costs to Government to this intervention to align with the increased rate of primary healthcare outlined below.</p>	
Reduction in emergency department visits				

⁴ Te Puni Kōkiri analysis of 2013 census data.

⁵ Ministry of Health, (2013) 'Emergency Department Use 2011/12: Key findings of the New Zealand Health Survey.

		<p>Commencement</p> <p>Whānau health is assumed to begin to improve from the time that they move to a social rental or affordable home and begin accessing primary healthcare to a greater extent.</p>	
<p>Health</p> <p>Increase in GP visits (publicly funded)</p>	<p>Section 9(2)(g)(i)</p>	<p>Impact</p> <p>A New Zealand based study showed that improved access to primary health care amongst deprived communities can have the effect of increasing GP visits by up to 2 visits per person per annum.⁶ This is applied to all members of our whānau household, who are assumed to have very limited access to primary healthcare up to this point.</p> <p>Duration</p> <p>The study had a 4 year period over which the rate of GP visits were observed.</p> <p>Commencement</p> <p>Whānau households are assumed to increase utilisation of primary healthcare from the time that they move to a social rental or affordable home.</p>	<p>Section 9(2)(g)(i)</p>
<p>Health</p> <p>Fewer in-patient hospital visits</p>		<p>Impact</p> <p>New Zealand evidence indicates that one in eight Māori are admitted to hospital each year with an average of 1.7 admissions.⁷ As our target cohort consists of the severely deprived, many of which are living in makeshift accommodations or in houses of very poor quality that represent a health and safety risk, we would expect the rate of hospitalisation to be higher than the average and have therefore modelled this at a rate of 2 admissions per year. New Zealand statistics indicate that the average length of stay in hospital is 4 days.⁸</p> <p>A New Zealand study found that when health outcomes are improved amongst Māori, avoidable hospitalisation rates may decrease by up to 28%.⁹</p> <p>It is assumed that all members of our whānau household will reduce their in-patient hospital visits by 28%.</p> <p>Duration</p> <p>We have attributed 4 years of reduced costs to Government to this intervention to align with the increased rate of primary healthcare outlined above.</p> <p>Commencement</p> <p>Whānau health is assumed to begin to improve from the time that they move to a social rental or affordable home and begin accessing primary healthcare to a greater extent.</p>	
<p>Health</p> <p>Avoided marginal costs of treating cardiovascular disease</p>		<p>Impact</p> <p>A UK study found that when GP visits are increased, the risk of cardiovascular disease decreases by 19%.¹⁰ This impact is applied to the adults in our whānau households only.</p> <p>Duration</p> <p>Avoided costs are assumed to accrue over a 10 year period.</p>	

⁶ Gifford H, Crampton P, and Bowers S (2006). 'Improving access to primary care in Porirua evaluation.'

⁷ Robson B, Harris R. (eds). Hauora: Māori Standards of Health IV. A study of the years 2000–2005.

⁸ New Zealand Treasury, (2012) 'Health Projections and Policy Options for the 2013 Long-term Fiscal Statement – Draft Paper for the Long-Term Fiscal External Panel'.

⁹ Hefford M, Crampton P and Foley J, (2005). 'Reducing health disparities through primary care reform: the New Zealand experiment,' Health Policy, 72:9-23.

¹⁰ Brett T, et al (2012). 'The Freemantle Primary Prevention Study: a multicentre randomised trial of absolute cardiovascular risk reduction,' British Journal of General Practice, p22-28.

	Section 9 (2)(g)(i)	<p>Commencement</p> <p>Assumed to come into effect once increased utilisation of primary health care services by whānau has concluded, a lag of 4 years.</p>	Section 9 (2)(g)(i)
<p>Health</p> <p>Avoided marginal costs of treating rheumatic fever</p>		<p>Impact</p> <p>New Zealand evidence¹¹ suggests that improving housing conditions can result in healthcare savings of 10% in relation to avoided instances of rheumatic fever¹². Given Māori are 23 times more likely than other ethnic groups to have Acute Rheumatic Fever¹³, we have doubled this impact, which is applied to the children in our whānau households.</p> <p>Duration</p> <p>Avoided costs are assumed to accrue over 18 years, a period equivalent to adolescence.</p> <p>Commencement</p> <p>The children in our target cohort are assumed to be less likely to contract rheumatic fever three months after they move to a healthy social rental or affordable home.</p>	
<p>Education</p> <p>Avoided costs of truancy</p>		<p>Impact</p> <p>Assumes that there is a 5% reduction in truancy amongst the children in our whānau households, based on evidence from a New Zealand study.¹⁴</p> <p>Duration</p> <p>Avoided costs of truancy are expected to accrue over a 10 year period.¹⁵</p> <p>Commencement</p> <p>The children in our whānau households are assumed to be less likely to be truant three months after they are established in a stable home.</p>	
<p>Employment</p> <p>Additional tax revenue</p>	<p>Impact</p> <p>Additional tax revenue is assumed to arise from:</p> <ul style="list-style-type: none"> • Greater educational achievement leading to better employment prospects. An American study found that a reduction in residential mobility can increase the probability of high school completion by 30%.¹⁶ Modelled as the marginal increase in tax revenue between a person with no qualification and one with high school completion. This impact is applied to the children in our whānau households. • Greater labour market participation. An Australian study on affordable housing solutions for vulnerable women found a 26% increase in employment when they moved into stable housing.¹⁷ Given women often have greater childcare responsibilities that can restrict their participation in the labour market, this figure is not therefore likely to be fully representative of expected cohort wide impacts. We have therefore increased this impact by 10% in our model. As the target cohort consists of the most severely deprived and hard to reach members of New Zealand society, 		

¹¹ Capital Coast, Hutt and Wairarapa District Health Boards, (2013). 'Rheumatic fever prevention plan.'

¹² Where the avoided cost of treating rheumatic fever is estimated to be the average of treating diabetes and treating cardiovascular disease.

¹³ (No author), (2011), 'Rheumatic fever in Māori: what can we do better?' Best Practice Journal vol 37:22-33.

¹⁴ Otara Health, (2015). 'All people in Otara are thriving in healthy, safe and affordable homes.'

¹⁵ Assumed to be an average schooling period. Discounted from 13 years given there will be a mix of ages in the whānau households.

¹⁶ Astone N.M, and McLanahan S.S, (1994). 'Family Structure, residential mobility, and school dropout: A research note,' Demography, 31(4):575-584.

¹⁷ Kliger B, Large J, Martin A, and Standish J, (no date). 'How an innovative housing investment scheme can increase social and economic outcomes for the disadvantaged.'

	Section 9(2)(g)(i)	<p>this impact is applied to 75% of the adults in our whānau households. In accordance with Treasury guidance, only 25% of the overall impact is captured by our analysis and the pre intervention value takes account of the fact that individuals were receiving the Jobseeker Support benefit in the counterfactual.</p> <p>Duration</p> <p>Greater educational achievement is assumed to put the children on a higher earning pathway for their entire working lives (modelled at 25 years).</p> <p>Higher earnings arising from greater labour market participation are assumed to apply for the remainder of an adults' working life (modelled at 20 years).</p> <p>Commencement</p> <p>The benefits of a higher income linked to greater educational achievement are assumed to commence once schooling is concluded (a time lag of 10 years).</p> <p>The benefits of a higher income linked to greater labour market participation are assumed to commence three months after the whānau has a stable housing environment.</p>	Section 9(2)(g)(i)
<p>Employment</p> <p>Reduction in Jobseeker Support benefit</p>		<p>Impact</p> <p>For the adults in our whānau households that are expected to move into employment, it is assumed that there will be a corresponding decrease in utilisation of the Jobseeker Support benefit.</p> <p>Duration</p> <p>Greater labour market participation is assumed to apply for the remainder of an adults working life (modelled at 20 years).</p> <p>Commencement</p> <p>Greater labour market participation (and hence a reduction in Jobseeker Support benefit utilisation) are assumed to commence three months after the whānau have a stable housing environment.</p>	
<p>Employment</p> <p>Increase in Accommodation Supplement payments</p>		<p>Impact</p> <p>Based on an analysis of 2006 census data¹⁸ it is assumed that 22% of our whānau households are currently homeless, in emergency housing, or are in commercial accommodation/living on a marae and are not currently paying for their housing, but will begin to do so once they move into a social rental or affordable home.¹⁹</p> <p>Duration</p> <p>As these social rental or affordable houses are being built by Māori for the long term benefit of whānau. The length of tenure is assumed to be 20 years.</p> <p>Commencement</p> <p>Whānau households are assumed to begin to draw on the Accommodation Supplement upon moving into a social rental or affordable home.</p>	
<p>Justice</p> <p>Fewer violent offences</p>		<p>Impact</p> <p>A UK study found that increased educational attainment reduces property crime offences by up to 19.6%.²⁰ This impact is assumed to apply to the 30% of children in our whānau households that achieve enhanced educational outcomes.</p> <p>Duration</p>	

¹⁸ Amore K, Viggers H, Baker, MG, & Howden-Chapman, P (2013). 'Severe housing deprivation: The problem and its measurement,' Official Statistics Research Series, 6.

¹⁹ The rate of utilisation for the remainder of the whānau households in our target cohort, who will be living in private dwellings, is assumed to remain constant.

²⁰ Machin S, Marie O, and Vujić S, (2011). 'The crime reducing effect of education,' The Economic Journal, 121: 463-484.

	Section 9(2)(g)(i)	The study considered a 20 year period. Commencement Following the completion of schooling – a lag of 10 years.	Section 9(2)(g)(i)
Justice Less property damage		Impact As per above, but with an impact value of 10.4%. Duration As per above. Commencement As per above.	
Justice Fewer drug offences		Impact As per above, but with an impact value of 11.5%. Duration As per above. Commencement As per above.	
Total Quantified Government Impact			
Wider Societal Benefits/(Costs)			
Increased income		As per additional tax revenue assumptions above.	
Total Quantified Wider Societal Impact			
Net Present Value of Total Quantified Societal Impacts			

Impact Summary Table 2 – improving the quality of housing for whānau

Impacts - Identify and list \$m present value, for monetised impacts	Option/scenario		Assumptions and evidence (quantify if possible, and use ranges where appropriate)	Certainty
	1	2		

Estimated impact on key outcomes				
Whānau live in houses that are warm, dry and have basic amenities	Section 9(2)(g)(i)	Impact It is assumed that all whānau in our target cohort have their homes repaired such that they provide safe and healthy living environments. Commencement It is assumed that there is a 6 month delay between release of funding and when the housing repairs are complete. This delay is evident in the phasing of the target population.	Section 9(2)(g)(i)	
Cost of the Initiative				
Fiscal operating costs of the initiative		108 whānau households per year spread across 5 years. The whānau household composition is as outlined in Table 1.		
Government Benefits/(Costs)				
Health Reduction in emergency department visits		Assumptions are as outlined in Table 1.		
Health Increase in GP visits	Assumptions are as outlined in Table 1.			

Health Fewer in-patient hospital visits	Section 9(2)(g)(i)	Assumptions are as outlined in Table 1.	Section 9(2)(g)(i)
Health Avoided costs of treating cardiovascular disease		Assumptions are as outlined in Table 1.	
Health Avoided costs of treating rheumatic fever		Assumptions are as outlined in Table 1.	
Education Avoided costs of truancy		The impact of enhanced educational achievement is assumed to be half that outlined in Table 1 (i.e. 2.5%). All other assumptions remain the same as in Table 1.	
Employment Additional tax revenue		The impact of enhanced educational achievement is assumed to be half that outlined in Table 1 (i.e. 15%). All other assumptions remain the same as in Table 1.	
Justice Fewer violent offences		Reduced educational achievement assumption outlined above applies here. All other assumptions remain the same as in Table 1.	
Justice Less property damage		Reduced educational achievement assumption outlined above applies here. All other assumptions remain the same as in Table 1.	
Justice Fewer drug offences		Reduced educational achievement assumption outlined above applies here. All other assumptions remain the same as in Table 1.	
Total Quantified Government Impact			

Wider Societal Benefits/(Costs)			
Increased income	Section 9(2)(g)(i)	As per additional tax revenue assumptions above.	Section 9(2)(g)(i)
Total Quantified Wider Societal Impact			
Net Present Value of Total Quantified Societal Impacts			

Section C Conclusions

Conclusions

The analysis presented above suggests that:

1. The whānau that this initiative targets are some of our society's most vulnerable. They live in a range of unhealthy and untenable environments with detrimental impacts on their health and wellbeing, and their ability to make good choices for a better future. Without targeted interventions that put whānau at the centre, not just at the receiving end, it is likely that Māori will continue to be overrepresented in housing deprivation statistics.
2. Improvements in housing have a broad range of socio-economic impacts. The proposed initiative will deliver significant positive impacts, not just for the whānau in question, but for society as a whole. Section 9(2)(g)(i)
3. Investing to improve housing outcomes for whānau also makes sense from a Government perspective Section 9(2)(g)(i)

the Government can have a high level of confidence that it is spending on increasing the supply of new social rental and affordable housing, and improving the quality of existing housing for whānau, will deliver value for money.

Section 9(2)(g)(i)

Summary of monetised results

Summary of monetised results 1 - increasing the supply of social rental and affordable housing for whānau

Use ranges for values where appropriate	Discount Rate	
	8% real (default)	4% real (sensitivity)
Section 9(2)(g)(i)		

Summary of monetised results 2 - improving the quality of housing for whānau

Use ranges for values where appropriate	Discount Rate	
	8% real (default)	4% real (sensitivity)
Section 9(2)(g)(i)		

Supporting Evidence

See footnotes.

Appendix 1 Intervention logic diagrams



