

To: Hon Bill English  
Hon Gerry Brownlee  
Hon Steven Joyce



IN CONFIDENCE

Rezoning Orange Zones in Southshore West

Date	10 May 2012	Priority	URGENT
Report No	M/12/0362	File Reference	M/12/0362

Action Sought

		Deadline
Hon Bill English <i>Minister of Finance</i>	Agree to the recommendations in the paper	15 May 2012
Hon Gerry Brownlee <i>Minister for Canterbury Earthquake Recovery</i>	Agree to the recommendations in the paper	11 May 2012
Hon Steven Joyce <i>Associate Minister of Finance</i>	Agree to the recommendation in the paper	15 May 2012

Contact for Telephone Discussion (if required)

Name	Position	Telephone	1st Contact
Diane Turner	General Manager, Strategy, Planning and Policy		<input checked="" type="checkbox"/>
Withheld under section 9(2)(g)(i)		Withheld under section 9(2)(a)	

Minister's office comments

- Noted
- Seen
- Approved
- Needs change
- Withdrawn
- Not seen by Minister
- Overtaken by events
- Referred to

Comments

# Rezoning Orange Zones in Southshore West

## Purpose

- 1 This paper seeks to rezone 401 residential properties in Southshore West.

## Executive summary

- 2 An estimated 401 residential properties in Christchurch's Southshore West remain orange zoned.
- 3 In Southshore West there has been extensive lateral spreading, particularly along the estuary edge. An engineering solution to remediate the land damage would be uncertain, disruptive, not timely nor cost effective and the health and wellbeing of residents is at risk.
- 4 To provide certainty to these residents and enable them to commence discussions with EQC and their insurers, Joint Ministers are asked to agree to proposals to:
  - 4.1 Rezone 203 of the remaining orange zoned properties green;
  - 4.2 : Withheld under section 9(2)(a)
  - 4.3 Rezone 195 of the remaining orange zoned properties red.
- 5 I intend announcing these decisions on 18 May 2012.

## Consultation

- 6 Treasury was consulted on a draft of this briefing. The Department of the Prime Minister and Cabinet, and Department of Building and Housing were informed of this paper.

## Recommendations

- 7 It is recommended that you:

- 1 Note that Cabinet has previously authorised a group of Ministers, comprising the Minister of Finance, the Minister for Canterbury Earthquake Recovery, and the Associate Minister of Finance (Hon Steven Joyce), to have Power to Act until 30 June 2012 to take decisions on classifying the Orange Zone areas [CAB Min (12) 7/3A refers];

- 2 Agree that 203 residential properties in Southshore West as indicated in the map attached in Appendix 2 be rezoned green.

YES / NO  
Minister of Finance

YES / NO  
Minister for Canterbury  
Earthquake Recovery

YES / NO  
Associate Minister of  
Finance

3

Withheld under section 9(2)(f)(iv)

4

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury  
Earthquake Recovery

YES /  NO  
Associate Minister of  
Finance

5 Agree that 195 residential properties in Southshore West as indicated in the map attached in Appendix 2, be rezoned red.

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury  
Earthquake Recovery

YES /  NO  
Associate Minister of  
Finance

6 Agree to extend the government offer of purchase to insured residential property owners in the new residential red zone in Southshore West, agreed in recommendations 3 and 4 above.

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury  
Earthquake Recovery

YES /  NO  
Associate Minister of  
Finance

7 Note that the gross cost of voluntarily purchasing properties in the new Southshore West residential red zone is estimated to be \$101.300 million, based on a worst-case cost scenario;

8 Note that the net cost of purchasing properties in the new Southshore West residential red zone is estimated to be less than \$75.500 million;

9

Withheld under section 9(2)(b)(ii)

10 Approve the following changes to appropriations to provide for the purchase of insured residential red zone properties related to recommendations 4 and 5 with a corresponding impact on the operating balance:

	\$m Increase/(decrease)				
	2011/12	2012/13	2013/14	2014/15	2015/16 & outyears
Vote Canterbury Earthquake Recovery					
Minister for Canterbury Earthquake Recovery					
Non-Departmental Other Expense:					
Acquisition of Canterbury Red Zone properties	101.300	-	-	-	-

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury Earthquake Recovery

YES /  NO  
Associate Minister of Finance

11 Note that the cost of providing a contribution towards legal fees to property owners in the new Southshore West residential red zone is estimated to be \$0.149 million, based on a worst-case cost scenario;

- 12 Approve the following changes to appropriations to provide for contributions towards legal fees incurred by property owners for the residential red zone referred to in recommendation 4 and 5 with a corresponding impact on the operating balance:

Vote Canterbury Earthquake Recovery	\$m increase/(decrease)				
	2011/12	2012/13	2013/14	2014/15	2015/16 & outyears
Minister for Canterbury Earthquake Recovery					
Non-Departmental Other Expense:					
Contributions towards legal fees	-	0.149	-	-	-

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury Earthquake Recovery

YES /  NO  
Associate Minister of Finance

- 13 Note that the transaction and management costs including demolition associated with voluntarily acquired residential red zone properties in recommendations 4 and 5 is estimated to be \$4.762 million.

14 Approve the following changes to appropriations to provide for transaction costs incurred by the Canterbury Earthquake Recovery Authority with third parties on behalf of the Crown, relating to the acquisition and management of voluntarily acquired residential red zone properties referred to in recommendation 4 and 5 with a corresponding impact on the operating balance:

Vote Canterbury Earthquake Recovery	\$m increase/(decrease)				
	2011/12	2012/13	2013/14	2014/15	2015/16 & outyears
Minister for Canterbury Earthquake Recovery					
Non-Departmental Output Expense:					
Canterbury Earthquake Property Demolitions and Related Costs and Compensation	-	1,630	-	-	-
Departmental Output Expense:					
Management of Voluntarily Acquired Insured Residential Red Zone Properties	-	0,177	-	-	-
Non-Departmental Other Expense:					
Management of Voluntarily Acquired Insured Residential Red Zone Properties		2,955	-	-	-
<b>Total Operating</b>	-	4,762	-	-	-

YES / NO  
Minister of Finance

YES / NO  
Minister for Canterbury Earthquake Recovery

YES / NO  
Associate Minister of Finance

15 Agree that the proposed changes to appropriations for 2011/12 be included in the 2011/12 Additional Supplementary Estimates and that, in the interim, the increase be met from Imprest Supply.

YES / NO  
Minister of Finance

YES / NO  
Minister for Canterbury Earthquake Recovery

YES / NO  
Associate Minister of Finance

16 Agree that the proposed changes to appropriations for 2012/13 be included in the 2012/13 Supplementary Estimates and that, in the interim, the increase be met from Imprest Supply.

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury  
Earthquake Recovery

YES /  NO  
Associate Minister of  
Finance

17 Agree that all the expenses (net of insurance recoveries where applicable) incurred under appropriations agreed in this paper be a charge against the Canterbury Earthquake Recovery Fund.

YES /  NO  
Minister of Finance

YES /  NO  
Minister for Canterbury  
Earthquake Recovery

YES /  NO  
Associate Minister of  
Finance


18 Note that on 26 March 2012 Cabinet authorised the Minister for Canterbury Earthquake Recovery power to act to extend the final settlement date for red zone property owners [CAB Min (12) 10/19 refers].

19 Agree to extend the final settlement date for the new residential red zone in Southshore West to 30 June 2013.

YES  NO  
 Minister for Canterbury  
 Earthquake Recovery



Diane Turner  
 General Manager – Strategy, Planning and Policy

NOTED / APPROVED / NOT APPROVED	NOTED / APPROVED / NOT APPROVED	NOTED / APPROVED / NOT APPROVED
		
Hon Bill English	Hon Gerry Brownlee	Hon Steven Joyce
Minister of Finance	Minister for Canterbury Earthquake Recovery	Associate Minister of Finance
Date: 10/5/2012	Date: 10/05/2012	Date: 15/5/2012

Released by the Minister for Canterbury Earthquake Recovery

Appendix 1 – Property counts by area  
 Appendix 2: Map of proposed rezoning – Southshore West



## Background

### Previous Zoning Decisions

- 8 In the Initial Canterbury Earthquake zoning announcements on 23 June 2011, zones were established based on the severity and extent of land damage and the cost-effectiveness and social impacts of land remediation. Criteria were previously agreed by Cabinet to classify areas as either red zones or green zones [CAB Min (11) 24/15 refers].
- 9 Green zones have been declared in areas where land damage can be addressed on an individual basis as part of the normal insurance process.
- 10 Red zones have previously been declared in areas where [CAB Min (11) 24/15 and CAB Min (11) 30/18]:
  - 1.1 there is area-wide land damage, thereby implying some sort of area-wide solution; and
  - 1.2 an engineering solution to remediate the land damage would:
    - 1.2.1 be uncertain in terms of detailed design, its success and its possible commencement, given the on-going seismic activity;
    - 1.2.2 be disruptive for landowners, as the commencement date is uncertain (both in terms of confidence in the land settling sufficiently to begin remediation and the need to sequence the many areas where remediation would be required), and the length of time they would need to be out of their homes to allow remediation to occur and new homes built;
    - 1.2.3 not be timely: for example there is also substantial replacement of infrastructure required and/or the land level needs to be significantly lifted effectively requiring work equivalent to the development of a new subdivision, and would probably lead to significant social dislocation for those communities in the short-to-medium term
    - 1.2.4 not be cost effective: the cost of remediation is greater than the value of the land as shown below;

<i>Land reinstatement to pre-September 2010 condition</i>	
+	
<i>The betterment cost (i.e. perimeter treatment and/or additional raising of the land)</i>	
+	
<i>Infrastructure replacement<sup>1</sup></i>	
-	
<i>Decommissioning costs (infrastructure decommissioning and grassing)</i>	
<i>If the cost of the above exceeds the improvement in the value of the damaged land<sup>2</sup>, remediation is</i>	<i>If the cost of the above is less than the improvement in the value of the damaged</i>

<sup>1</sup> Includes the infrastructure within the Orange Zones required to service the sub-zone area of interest (and excludes the cost to repair infrastructure required to service surrounding Green Zones)

*not cost-effective*

*land<sup>2</sup>, remediation may be cost-effective*

- 1.3 The health or well-being of residents is at risk from remaining in the area for prolonged periods.
- 11 Orange zones were established for areas which required further work to determine the appropriate permanent zoning category.
- 12 The final 401 properties remaining in the orange zone are located in Southshore West. The remaining orange zones are among the most challenging to make decisions on because of the nature of land damage (e.g., moderate to severe lateral spreading), the nature and extent of land remediation works required, and/or the extent of property damage suffered.
- 13 Cabinet previously authorised a group of Ministers, comprising the Minister of Finance, the Minister for Canterbury Earthquake Recovery and the Associate Minister of Finance (Hon Steven Joyce), to have Power to Act to take decisions on reclassifying the orange zone areas until 30 June 2012 [CAB Min (12) 7/3A refers].

#### *Southshore West*

- 14 Southshore is a thin strip of land bounded on one side by the western edge of the estuary and on the other side by the South Pacific Ocean. Southshore East has already been zoned green.
- 15 Southshore West was subject to extensive lateral spreading in the earthquakes of September 2010 and February 2011, and to a lesser extent June 2011. Total ground displacements near the estuary edge have ranged from 100mm to more than 500mm. The ground across individual properties has stretched by as much as 500mm for properties near the estuary edge.
- 16 The earthquakes of 23 December 2011 were centred offshore close to Southshore, and while the orientation of the fault may have directed the most severe shaking away from Southshore the area was still subjected to strong ground shaking. Land damage mapping undertaken after these earthquakes revealed minor to moderate additional lateral spreading in Southshore.
- 17 Consultant geotechnical engineers Tonkin & Taylor have advised that further moderate to major lateral spreading could be expected to occur in Southshore West in future large earthquakes. GNS modelling indicates that there is currently a relatively high likelihood of such earthquakes, but that this likelihood is expected to progressively diminish over time.
- 18 Generally, properties directly on the estuary edge have the highest capital values and are also the most damaged. In terms of physical damage to buildings, over half of all properties have been assessed by EQC as total rebuilds, many of which are located on the estuary side.
- 19 Infrastructure serving both Southshore West and the adjacent green zone runs along Rocking Horse Road (that divides the two areas) and is not a factor in a Southshore West rezoning decision.

#### *Guidance on Foundation Designs*

- 20 The Department of Building and Housing (DBH), through its Engineering Advisory Group, has developed guidance for foundation systems that are suitable for houses located in technical

<sup>2</sup> Despite the recent earthquake events, properties are likely to have some land value left. We assume there is 10% of the land value remaining in the properties.

category 3 (TC3) areas. This process included producing guidance on ground treatment to strengthen land and deep piles, which are designed to limit settlement but will not address severe lateral spreading. They also include surface shallow foundations, which are designed to cope with both settlement and minor lateral spreading.

- 21 DBH produced guidance on these foundation solutions on 27 April 2012 which provide additional certainty regarding the rebuilding options available for homeowners in TC3 areas. Now that this guidance is finalised, the limitations of these design solutions is clearer, including the degree of lateral spread the solutions can accommodate and the necessary restrictions on the building design and materials.
- 22 All of the remaining Southshore West orange zone properties would have to obtain more specific geotechnical investigation if they require foundation repairs or rebuilding and some would be found to be beyond the scope of the solutions recommended for TC3 that have been recently developed by DBH.

#### Properties which can be zoned green

- 23 Further analysis suggests that 203 of the properties in Southshore West currently meet green zone criteria where land damage can be addressed on an individual basis as part of the normal insurance process. These properties (see map in appendix 2) are located closest to Rocking Horse Road and further away from the estuary.
- 24 The levels of land damage for these properties are similar to many other green zone TC3 areas and have a range of foundation solutions available to them as outlined in the DBH guidance document.

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Withheld under section 9(2)(i)(v)

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Withheld under section 9(2)(a)

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Withheld under section 9(2)(i)(v)

#### Properties that will be zoned red

- 27 The remaining 195 properties are located along the estuary side of Southshore West (see map in appendix 2) where there has been extensive area-wide lateral spreading towards the estuary. As a result these properties are unable to be repaired on an individual basis through the normal insurance process and so do not meet the criteria for green zone.

- 28 The following sections will discuss the two options which have been considered for this area:

- o Perimeter treatment;

- Red zone (set back from the estuary).

### Perimeter Wall

29 Tonkin and Taylor have advised that the land could be improved to protect against severe lateral spreading in future earthquakes, by constructing an underground perimeter wall. This perimeter wall could be built on a fill platform constructed along the edge of the estuary to limit the impact on private property. Installing the wall in the estuary creates its own engineering challenges (although these are believed to be manageable) and may raise other concerns including environmental impact.

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Withheld under section 9(2)(b)(ii)

Withheld under section 9(2)(b)(i)

31 The table below presents estimates of the cost-effectiveness of area-wide land remediation, based on the formula noted in 3.2.4 above. The calculation uses most likely costs based on overall analysis of the estimates provided to CERA by Tonkin and Taylor and Beca and shows that remediation in this area is not cost effective.

		Expected net cost of remediating		
		Lower bound	Mid point	Upper bound
Southshore West - 198 residential improved properties	Net cost	\$20.0m	\$55.0m	\$90.0m
	% of pre earthquake LV required post remediation to make works cost effective	45%	105%	167%

32 These estimates consider the cost of remediating the land. There are a range of other costs that are not included in the analysis including the cost of temporary accommodation and rebuilding houses. Consequently, the figures given in the preceding discussion are an underestimate of the total cost of remediating these areas and understate the post remediation value that would be required for the works to be cost effective.

33 The wall would be a substantial structure, with a likely width of 25m and a depth varying between 8-10m. The wall would be built largely within the foreshore area along the length of the current orange zone. There are a variety of engineering options which could be used to construct such a wall, some of which would be less intrusive to residents than others.

34 There are uncertainties around the legality of undertaking such works in a marine environment. There is the potential for issues to be raised from interested parties well as difficulties with gaining the required consents and approvals from local authorities without using powers outlined in the CER Act.

35 Individual repairs and rebuilds could not all start until the wall is completed, but would still require individual ground engineering assessments and treatments (as per other TC3 areas).

There is no guarantee that insurers will continue to offer cover to these areas even after the works are completed.

36. CERA considered the necessary design, consenting, facilitation and construction work which would be necessary to complete the perimeter treatment and to rebuild homes in this area. In total this process is estimated to take up to 2-3 years to complete in total making it uncertain, disruptive, and not timely.
37. Therefore officials do not recommend this option as it would be uncertain, disruptive, not timely, nor cost effective and therefore would not meet the Government's rebuild objectives.

#### *Red zone (set back)*

38. The extent of land damage along the estuary side of Southshore West is comparable with the residential red zones. The latest figures estimate that 60% of properties are classified as total rebuilds although this is based on EQC rapid assessments completed after the 22 February 2011 earthquake and may be higher as a result of the 13 June and 23 December earthquakes.

39. The net cost to the Crown of the purchase offer for these new residential red zone properties is estimated to be less than \$75.500 million (a gross cost of \$101.300 million less estimated insurance recoveries). <sup>3</sup> Withheld under section 9(2)(g)(i)

In addition, the Crown contribution to legal fees is estimated to be up to \$0.149 million. Additional costs include those for demolition of properties, the management of purchased land and transaction costs (estimated to be \$4.762 million).

40. Declaring these properties a residential red zone would incur a higher fiscal cost to the Crown than building a wall, however it would provide a significantly higher level of certainty to these residents and enable them to move on with confidence in line with the Government's rebuild objectives [CAB Min (11) 24/15 refers].

41. Therefore officials recommend that 195 properties along the estuary side of Southshore West be rezoned as a residential red zone and that the Government purchase offer is extended to insured residential property owners in this area.

#### *Settlement Date*

42. Previous residential red zone property owners have had up to 12 months from the date they receive the offer and with the opportunity to defer settlement up to April 2013.

43. Due to the timing of this decision, property owners would now have less than 12 months to accept the offer and settle by April 2013.

44. On 26 March 2012 Cabinet authorised the Minister for Canterbury Earthquake Recovery power to act to extend the final settlement date for red zone property owners [CAB Min (12) 10/19 refers].

45. Therefore officials recommend that if you agree to this recommendation you should also agree to extend the final settlement date to 30 June 2013. This would ensure property owners have 12 months to accept the offer and 13 months to complete settlement which is consistent with the timeframe the most recent residential red zone property owners have had.

<sup>3</sup> The ultimate cost will depend on: which of the two offers is accepted by property owners; and the amount of insurance recoveries received by the Crown under the purchase agreements.

## Financial Implications

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- 46 CERA estimates the gross cost of purchase associated with the new Southshore West residential red zone proposal to be \$101.300 million at a worst-case cost scenario. However, the Crown can also recognise the insurance receivables relating to the purchased properties. The exact quantum of these receivables is yet to be confirmed, but the net cost of purchasing these properties is estimated to be less than \$75.500 million. It is important to recognise that these costs could change depending on the interpretation of insurance policies and coverage.
- 47 The consequential impacts of the red zone decisions are as follows:
- Providing a contribution towards the legal fees of property owners in the new red zones is estimated to cost up to \$0.149 million.
  - Property transaction and management costs including demolition of \$4.762 million.
- 48 The net costs of purchasing all of the new red zone properties (including associated costs) will be a charge against the Canterbury Earthquake Recovery Fund (CERF).
- 49 Note that by subdividing three large properties there will be a reduction in this cost. However the Crown will incur some cost to subdivide if the owners accept the Government offer.

## Publicity

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- 50 Subject to your agreement, I propose to announce the re-zoning of Southshore West on 18 May 2012.
- 51 Letters of notification, updating the LandCheck, and CERA websites are being prepared in anticipation of the decisions in this paper. Door knocking is also being planned for Southshore West. Consideration is being given to live streaming the announcement.
- 52 A letter of advice will be sent to all Southshore West properties to inform them of their new land status. Information on Technical Categories will be included.

## Appendix 1

### List of areas proposed for Green Zoning

Areas proposed for Green Zoning (Individual repair possible)	Residential property count
Southshore West	203
TOTAL	203

Areas proposed for part Red and part Green Zoning (subject to subdivision)	Residential property count
Southshore West	3
TOTAL	3

### List of areas proposed for Red Zoning

Areas proposed for Red Zoning	Residential property count
Southshore West	195
TOTAL	195

Released by the Minister for Canterbury Earthquake Recovery