finity

Actuarial and Insurance Consultants

22 April 2015

Mr Peter Rose
Chief Executive Officer
Southern Response Earthquake Services Ltd
6 Show Place
Christchurch 8149
NEW ZEALAND

Dear Peter

Earthquake Claim Liabilities as at 31 March 2015

We have been asked by Southern Response Earthquake Services Limited ("SRES") to make an assessment of its insurance liabilities as at 31 March 2015. SRES is the Crown-owned entity which emerged from a transaction whereby, with effect from 5 April 2012, the ongoing business of AMI Insurance Limited ("AMI") was separated from the existing AMI entity and sold to Insurance Australia Group.

The purpose of this letter is to provide an estimate of the earthquake claim liabilities for Southern Response Earthquake Services Limited ("SRES") as at 31 March 2015. This valuation is predominantly based on a roll forward of our 31 December 2014 valuation with changes to valuation assumptions where emerging experience, or new information in respect of emerging issues, suggests changes are appropriate. We include commentary on the key changes to assumptions later in this letter.

This letter does not deal with the other non-earthquake retained events that were transferred from AMI Insurance Limited to SRES at the close of business on 5 April 2012.

Summary of Results

Table 1 summarises our estimates of SRES' earthquake liabilities at 31 March 2015. The line below the table indicates our estimate of the total amount which will be ultimately paid once all claims are settled (including payments already made but excluding SRES CHE expenses). This represents our central estimate of the ultimate liability. Our recommended provisions incorporate a risk margin which we believe to be consistent with the requirements to establish provisions which incorporate at least a 75% probability of sufficiency.

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Table 1 – Recommended EQ Provisions at 31 March 2015

Provisions for Outstanding Claims as at 31 Mar 2015	Cat 93 4-Sep-10 $m	Cat 106 22-Feb-11 $m	Cat 112 13-Jun-11 $m	Total Major $m	Total Minor $m	Total Overall $m
Gross Incurred Cost in 31 Mar $ before EQC	1,113.4	2,323.8	91.0	3,528.2	36.0	3,564.1
Expected EQC Share	-343.9	-582.5	-35.5	-961.9	-6.3	-968.2
Gross Incurred Cost in 31 Mar $ after EQC	769.4	1,741.4	55.4	2,566.2	29.7	2,595.9
less paid to 31 Mar 2015	-480.4	-935.1	-37.4	-1,453.0	-22.9	-1,475.9
Gross Outstanding Claims						
In 31 Mar 2015 Values	289.0	806.2	18.0	1,113.2	6.8	1,120.0
Allowance for Future Inflation	27.8	66.1	2.5	96.4	0.4	96.9
Inflated Values	316.8	872.4	20.5	1,209.7	7.2	1,216.9
Discount to Present Value	-12.4	-34.5	-0.8	-47.7	-0.2	-47.9
OSC Discounted to 31 Mar 2015	304.4	837.9	19.7	1,161.9	7.0	1,169.0
Claims Handling	[redacted]					
Gross Central Estimate						
Catastrophe R/I Recoveries	-118.0	0.0	-19.7	-137.7	-5.8	-143.4
Aggregate R/I Recoveries	0.0	0.0	0.0	0.0	0.0	0.0
Net Central Estimate	198.6	871.3	0.8	1,070.7	1.5	1,072.2
Risk Margin	[redacted]					
Recommended provision						
Inflated Gross Central Estimate (Incl paid to date, excl CHE)	797	1,808	58	2,663	30	2,692.8
Change on 31 Dec 2014 Valuation	35	115	4	154	0	154
Change on 30 Jun 2014 Valuation	115	206	7	328	1	328

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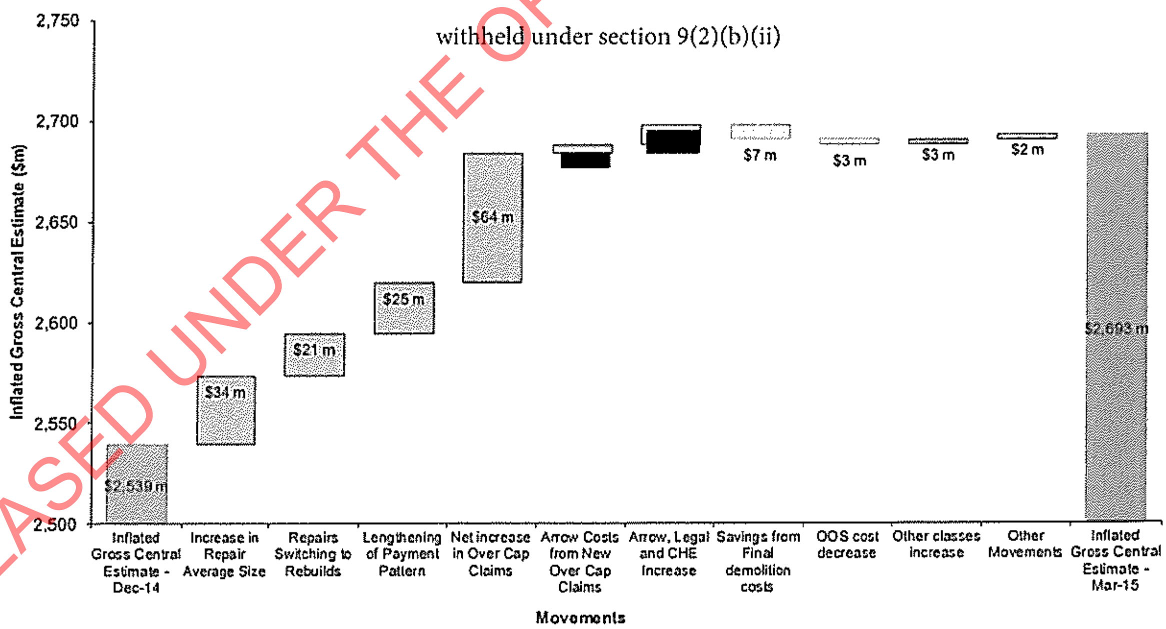
Our central estimate of the gross inflated ultimate cost at 31 March 2015 is $154 million higher than our 31 December 2014 estimate and $328 million higher than our 30 June 2014 estimate. The key movements are summarised in Figure 1.

Figure 1 – Movements in Inflated Gross Central Estimate



The major drivers of the increase in the central estimate since December are:

- **The continued emergence of higher than expected volumes of newly reported Over Cap claims.** Based on the latest patterns and some additional information provided by EQC, we now estimate that SRES will ultimately be responsible for 7,839 properties with Over Cap damage, an increase of 266 claims on the 7,574 adopted in our December valuation. This is the biggest impact on the valuation result, increasing the cost of Over Cap claims by $101 million before deduction of EQC recoveries and by $64 million net of EQC recoveries. Note that, using December 2014 valuation assumptions the net additional cost was $51 million.
- **An increase in the average claim size for Over Cap repairs.** In the March quarter, we have seen repair cost development patterns revert to levels well above the improving patterns seen in December. Accordingly, we have adopted development patterns more in line with the average experience of the past 12 months. This has resulted in a $34 million increase in the central estimate.
- **An increase in the number of Over Cap properties switching from repair to rebuild.** Scope & Cost pressures on repairs have increased the number of properties which are no longer economical to repair. SRES and Arrow have targeted these properties in the past year resulting in 237 properties moving from repair to rebuild. On the expectation that numbers will drop off in the future, we have allowed for a further 98 to move in the future, resulting in a total increase of $21 million.
- **An additional allowance for future inflation due to lengthening of the expected payment pattern.** Progress through a number of key construction phases and the rate at which cash settlements are being achieved has been materially slower than allowed for in the valuation. For this valuation, we have reflected the most recent throughput rates and also SRES' latest expectations around the timing of cash settlements. The lengthening of the payment pattern results in a total impact of $25 million.

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There has also been an $[redacted] million increase in the project management cost allowance and a $2 million increase in legal fees. These increases have been offset by:

- Final demolition costs for cash settlements in the Red Zone being completed for less than budgeted due to bulk demolitions and CERA demolitions resulting in a $7 million reduction.
- A $3 million reduction in Out of Scope costs, driven by the discovery of a number of claims that actually have been closed for a period of time. These claims have been closed with a much lower than expected average claim size compared to the average claim size assumed in our valuation.

Table 2 shows the main components of cost underpinning our overall estimate of SRES' ultimate earthquake liabilities.

Table 2 – Estimated Ultimate EQ Liabilities at 31 March 2015

	30 Dec 14 $m	31 Mar 15 $m	Mov't from Dec 14 $m
Ultimate Outflows			
Over Cap	2,843	3,022	180
Out of Scope	312	310	-3
Other	155	158	3
Claims Cost (Excl PM Cost)	3,311	3,490	179
Project Management Costs	[redacted]		
SRES Claims Handling	138	139	1
Ultimate Inflows			
EQC Contributions	946	983	37
Reinsurance Recoveries	1,244	1,248	3
	2,190	2,230	40
Net Outflow (net of RI)	[redacted]		
Cum. Paid Net of EQC (excl CHE)	1,371	1,476	105
Net Liability			
Central Estimate	1,010	1,072	62
Risk Margin	[redacted]		
Recommended Provision			

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Key Observations

In this section we provide further background to the key movements in the valuation during the quarter.

Over Cap Claim Numbers

For this valuation, EQC has provided additional information around the progress of their Canterbury Home Repair Programme (CHRP). We have used this information in conjunction with SRES' own experience to refine our estimate of the potential number of future new Over Cap claims, using two approaches:

1. Allowing for the recent volume of claims received by SRES to continue for the period implied by the EQC finalisation rate. This produces the following:
   - Over the past 6 months, SRES have on average been receiving 35 new properties each month.

- With around 750 properties being finalised by the EQC each month and 9,700 properties outstanding, this suggests it will be around 13 months before EQC resolves all of its outstanding matters.
- This implies there may be around 450 (=13 x 35) Over Cap properties still to be reported.

2. Based on EQC information on broad numbers of properties still to be 'resolved' split by foundation status, zone and construction status, we have made some estimates of the proportion likely to go Over Cap.

- This process has produced a 'low' and a 'high' estimate for each of the buckets shown in the table below.

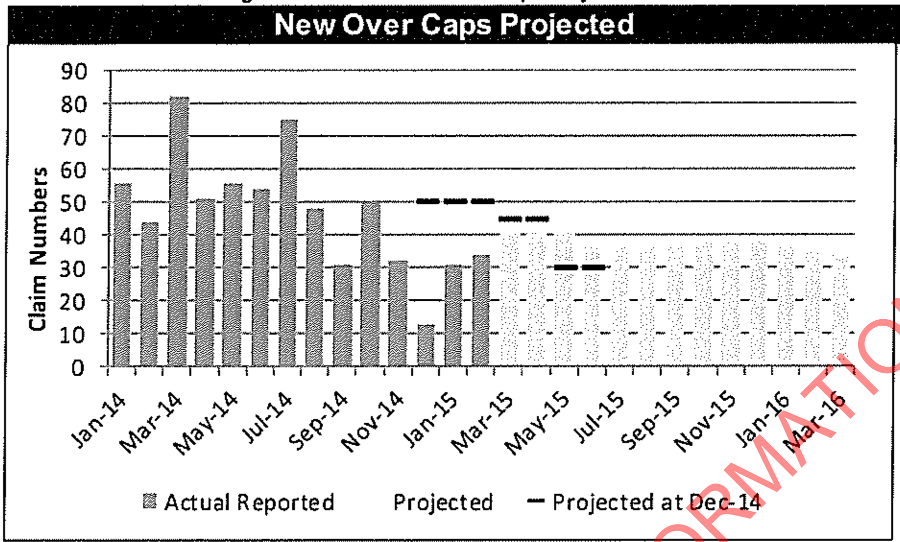
Table 3 – Claims going Over Cap by Zone and Foundation Damage

		EQC Properties Outstanding	Proportion Going Overcap			Total New Overcaps	SRES share
			Low	High	Selected		
Foundation Damage	Hills/TC3	1,600	48%	73%	60%	960	320
	Other	390	7%	29%	20%	78	26
No Foundation Damage	Hills/TC3	1,000	19%	46%	30%	300	100
	Other	710	1%	6%	3%	21	7
Construction commenced	All	2,000	0	0	0	0	0
Cash Settlements	All	4,000	0%	10%	3%	120	40
					Total	1,479	493

- When we select proportions which are around the middle of these ranges, we get an estimate of **493 future Over Caps** – which is similar to but a little higher than the estimate in the previous approach.

For the valuation, we have adopted the higher of the two estimates. The graph below shows the monthly volumes adopted.

Figure 2 – Future Over Cap Projection



This has resulted in our estimate of the ultimate number of Over Cap properties increasing by 266 since December 2014 to 7,839. Table 4 shows the breakdown of these claims between the Arrow Managed and Cash Settlement option.

Table 4 – Ultimate Claim Numbers Breakdown

Properties with Buildings Claims	Dec-14	Mar-15	Movt from Dec14
Ultimate No with Over cap damage	7,574	7,839	266
Arrow Managed			
- Rebuild	1,937	2,168	231
- Repair	2,001	1,912	-89
	3,937	4,080	143
Cash Settlements	3,636	3,759	123

The effect of the increased number of Over Caps has been exacerbated by a lower proportion of reported claims being Multi-Unit Dwellings than previously expected. At December we had assumed 30% of future reports to be Multi-Unit Dwellings (MUD's), but based on recent trends and EQC's belief that the majority of MUD's have been resolved, we have reduced this assumption to 10%. As Multi-Unit Dwellings have lower average claim sizes, this has led to an increase in the overall Over Cap average claim size for newly reported properties.

Before allowing for the higher repair claim size and inflation from the extended payment pattern (detailed below) on the new Over Cap claims, this results in an increase of $51 million to the central estimate net of EQC recoveries (The figure indicated to SRES in our note dated 24th March 2015). The table below shows the impact of the new claims after allowing for all factors and also includes a comparison to the June 2014 valuation:

Table 5 – Impact of New Over Caps

Movement In Inflated Undiscounted Ultimate Cost	Dec14 to Mar 15	Jun 14 to Mar 15
	$m	$m
Value at beginning (before reinsurance)	**2,539**	**2,364**
Cost of additional claims (prior val'n basis)	51	98
	2,590	2,462
Adjustments for emerging settlement experience		
For claim volumes on prior val'n basis	79	176
For additional Over Cap claims	13	30
	92	205
Project Management Cost Movements		
For claim volumes on prior val'n basis	7	18
For additional Over Cap claims	4	7
	11	25
Total Movement	154	328
Value at end (before reinsurance)	**2,693**	**2,693**
Total Movement from New Over Caps	**68**	**135**

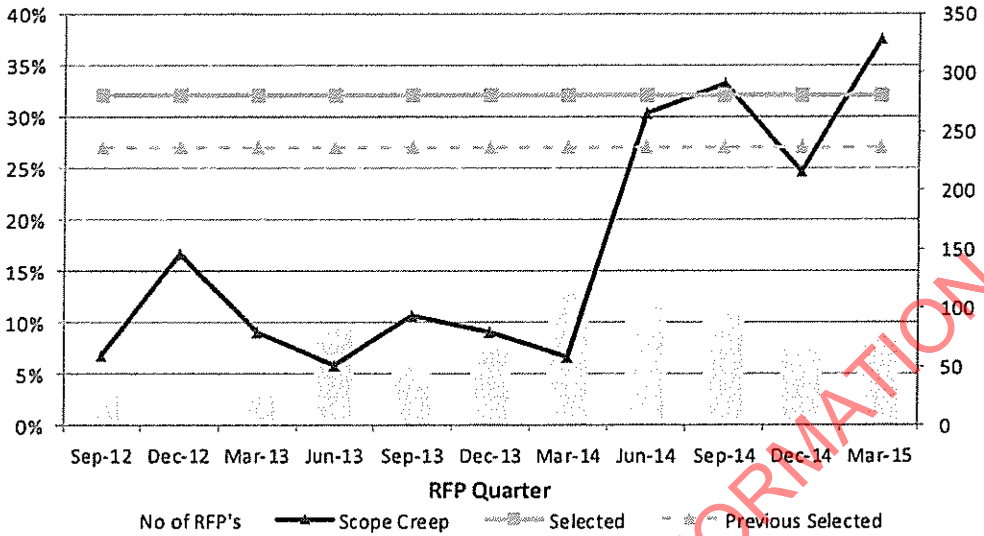
The total impact from new Over Cap Claims is a $68 million increase to the central estimate net of EQC recoveries compared to the December 2014 valuation and a $135 million increase compared to the June 2014 valuation.

Over Cap Average Claim Size

Our assessment of Over Cap average claim size is based primarily on Arrow's assessed costs. We then assess the adequacy of the DRA estimates against the emerging contract experience to make adjustments to the DRA estimates where appropriate. For the details of this process we refer the reader to our 30 June 2014 valuation report.

In the latest quarter, repair cost increases at the RFP stage of the DRA have increased further to 38%, following a dip in the December 2014 quarter as show in Figure 3

Figure 3 – Scope Change at Repair RFP



A sampling of repair claims by SRES and Arrow indicates the major drivers of the higher repair average sizes over the past year have been foundation costs, more conservative engineering and designer scoping and qualitative easing.

As a result, we have increased our adjustment to DRA estimates at RFP stage. Further, the observed savings at the contract stage have reduced in the latest quarter. Reflecting the latest experience results in a $34 million increase in the gross central estimate, compared to the basis adopted at December 2014. This is a 6% increase in the total expected repair cost.

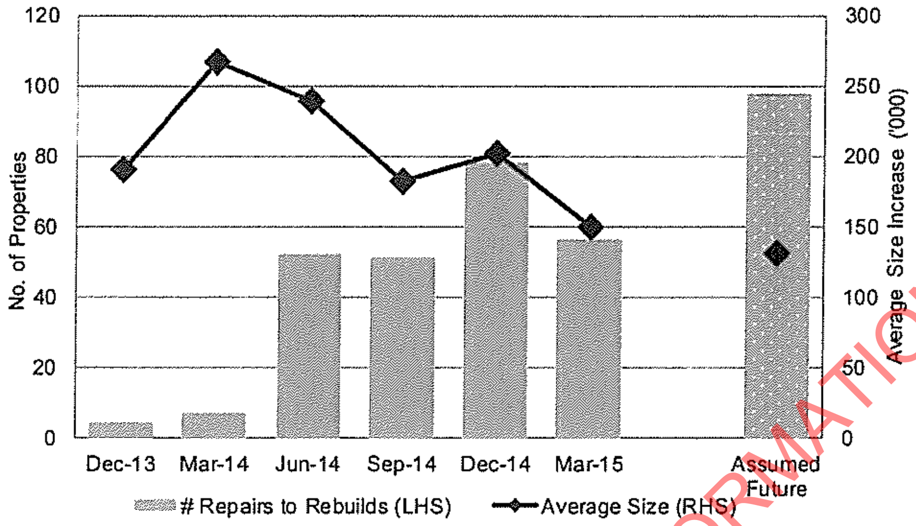
The Over Cap rebuild claim size is relatively unchanged from our December basis.

Over Cap Properties Switching from Repair to Rebuild

Since the June 14 quarter, along with the higher average size on jobs continuing as repairs, there has also been a significant increase in the number of properties switching from repair to rebuild. It is likely that the factors increasing repair costs (discussed above) has meant that more jobs are no longer economical to repair.

SRES and Arrow have targeted properties at risk of switching from repair to rebuild over the last year and believe the numbers switching in the future will reduce significantly. With this in mind, we have made an allowance for future switchers by looking at the proportions switching by age of DRA - older DRA's have been more likely to switch on revision. As shown in the figure below there has been 237 properties switching in the past year and we have projected 98 further properties to switch in the future.

Figure 4 – Repairs to Rebuilds



The average size increase in properties switching from repair to rebuild has been trending down over the last year and we have assumed that the future switchers will cost approximately $130k on average, in line with that trend.

The impact of the switchers in the March 15 quarter is $8 million and the impact of future switchers is $13 million – resulting total impact of $21 million.

Payment Pattern

Compared to our assumed completion speeds in the December valuation, a number of phases in the throughput model, Proteus, have taken significantly longer than expected. These have been slowed down to reflect recent experience with the biggest impacted phases being:

- The 'RFP to Tender Response' phase for Group Home Builds (delay increased from 19 to 25 weeks)
- The 'RFP to Consent Submitted' phase for Repairs (delay increased from 21 to 32 weeks).

Table 6 shows the history of completion speeds and our adopted speeds.

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Table 6 - Average Weeks to Complete Phase

		Qtr Completed								Assumed Delays	
		Jun-13	Sep-13	Dec-13	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Current	Previous
GHB	Phase 2	17.7	16.2	18.6	20.7	16.8	19.8	24.4	28.4	25.3	19.4
	Phase 3	7.5	6.0	6.4	7.5	6.1	6.1	6.9	8.8	7.4	6.3
	Phase 4	6.5	5.7	6.2	6.9	7.8	4.9	6.4	7.7	6.0	6.9
	Phase 5	8.6	9.5	11.6	10.4	9.1	6.1	7.5	8.0	6.3	8.8
	Phase 6	3.7	4.6	8.4	12.2	11.6	11.4	9.9	12.3	10.8	7.4
	Phase 7	26.8	23.4	24.8	28.5	26.6	26.8	27.4	29.5	28.4	25.4
	Total	**70.8**	**65.3**	**76.0**	**86.2**	**78.0**	**75.2**	**82.4**	**94.8**	**84.2**	**74.2**
DB	Phase 2	60.6	57.8	61.6	60.8	68.6	53.0	48.7	35.0	34.0	30.0
	Phase 3-5	30.6	28.9	27.4	29.2	26.6	20.8	37.6	35.0	15.7	22.0
	Phase 6	4.1	13.0	10.1	15.0	25.9	22.5	11.5		14.0	10.0
	Phase 7	29.6	36.7	32.5	41.8	47.2	43.0	53.5	57.5	36.0	36.0
	Total	**125.0**	**136.4**	**131.6**	**146.7**	**168.3**	**139.3**	**151.3**	**127.5**	**99.7**	**98.0**
Repair	Phase 2	21.5	23.2	19.1	24.1	20.5	21.8	32.6	32.6	31.9	21.3
	Phase 3-5	19.6	15.8	16.6	16.8	16.7	18.9	26.9	36.0	27.9	28.0
	Phase 6	4.4	4.5	6.4	7.4	5.8	6.0	7.2	12.7	8.5	6.6
	Phase 7	19.7	18.0	18.1	21.5	23.0	23.8	23.3	29.3	23.3	22.7
	Total	**65.2**	**61.5**	**60.1**	**69.9**	**65.9**	**70.4**	**90.0**	**110.6**	**91.6**	**78.6**

Cash settlements have also continued at a slower rate than expected and have now had their tail extended from June 2017 to June 2018.

Furthermore, as a result of the recent increase in properties coming across from the EQC, the ultimate number of Arrow managed properties has increased by 123 since our December valuation. This has resulted in an additional lengthening of the run-off pattern.

Figure 5 – Payment Pattern at March 2015

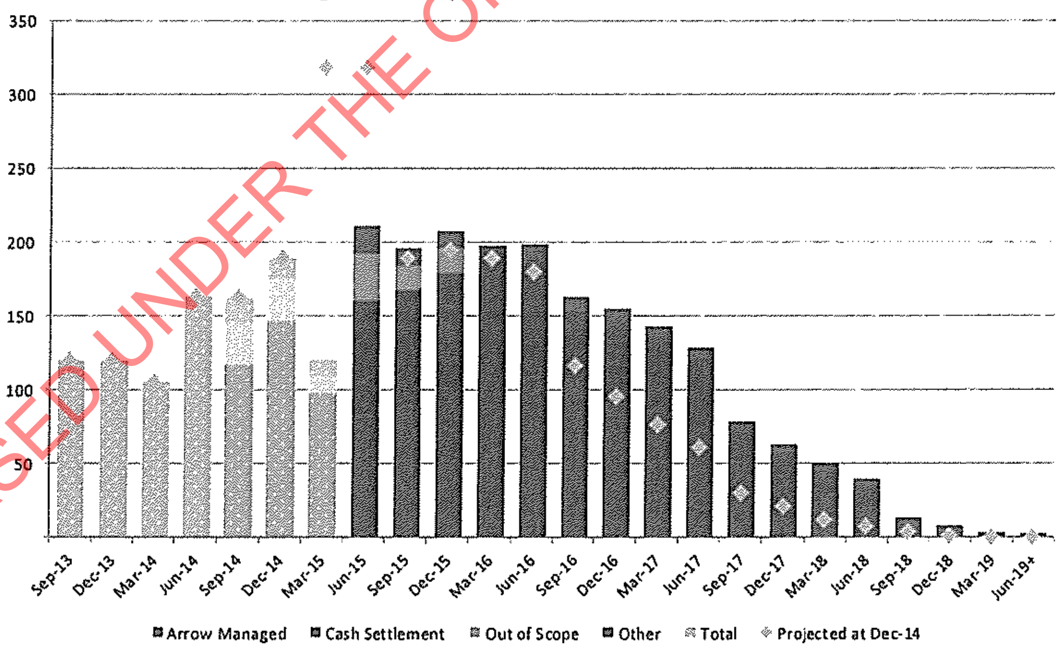


Figure 5 compares payment projections this valuation to payments projected at the December valuation. The payment tail has been lengthened and there were significantly fewer payments in the March 2015 quarter than projected.

The extending of the run-off pattern has meant claims will now be exposed to more inflation - resulting in a $25 million increase in liabilities.

Cash Settlement Savings

For properties that have received a cash settlement payment, we were previously estimating their demolition cost using the DRA budgets in the PIMS system. However, properties in the Red Zone have saved on their demolition budgets due to bulk demolitions and CERA performed demolitions. Recognising this has resulted in a $7 million decrease in the central estimate.

Enhanced Foundation Costs

There remains uncertainty in regard to the division of responsibility (between EQC and the private insurers) for the costs involved in remediating land to a standard suitable for building on, particularly in TC3. As part of our analysis for flood-prone properties completed prior to the declaratory judgement on increased flood vulnerability, information received from the EQC regarding land damage classifications suggested there might be around 300 properties exposed to increased liquefaction vulnerability, and SRES would be eligible to receive compensation from the EQC for the cost of enhanced foundations. This is unchanged from our December valuation.

Assuming SRES is able to recover the full cost of the enhanced foundations for these properties (around $50k per property), SRES can expect to recover around $15 million in land damage. Our valuation basis assumes recoveries of around $15 million in respect of enhanced foundation costs. The actual outcome will depend upon the terms ultimately negotiated with customers.

Out of Scope (OOS)

In this valuation, we have identified approximately 1,000 claims with finalised payments that have never received an Arrow assessment. These are:

- Claims that were settled before Arrow was appointed as project manager
- Claims that the customer have decided not to proceed with
- Small claims that were assessed over the phone.

These claims have closed with lower claim sizes than we had expected as we had allowed for these claims to receive an Arrow assessment in the future.

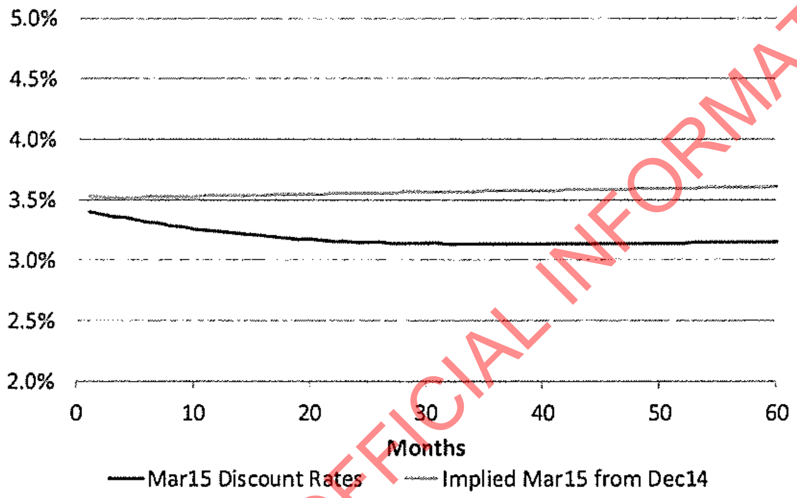
This reduction was partially offset by the average assessed claim size in the quarter being higher than expected. The net result is a $3 million decrease in the central estimate.

Other Areas

In the December valuation, we projected Contents claims to be fully complete by the end of 2015. However over the last few quarters new claims have continued to be lodged strongly and we've now extended the lodgements to mid-2016. This results in 200 extra contents claims and a $2 million increase in the central estimate.

The yield curve has seen a downwards shift in latest quarter and a slight change in shape, as seen in Figure 6. This has increased the discounted provisions by $6 million.

Figure 6 - New Zealand Treasury Zero Coupon Yield Curve



Project Management Costs and Claims Handling Expenses

Estimated total legal fees increased by $2 million to $10 million and claims handing expenses increased by $1 million. The inflated project management costs have increased significantly by $[redacted] million, driven by the increase in the ultimate number of Arrow managed claims and the delay in the build timeframe being extended to June 2018

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Uncertainty of our Estimates

It should be noted that considerable uncertainty still surrounds the projection and valuation of SRES' EQ liabilities. While SRES has progressed most of the way through the damage assessment phase, a large proportion of the overall incurred cost is yet to be settled. In addition, the run-off is exposed to a higher level of variability in claims experience than a typical residential property run-off portfolio. As the claim settlement process has progressed, a greater proportion of outstanding claims liability relates to more complex claims, meaning the uncertainty around future settlement outcomes for outstanding claims is magnified (as compared to 'normal' residential property claims).

To understand the exposure to further adverse development, we have performed a series of sensitivity tests. These are set out in the table below, showing the movement required in our key assumptions to produce a $20 million increase in the valuation.

Table 7 – Movement required for a $20 million Increase

Component of O/S Liability	Exposure to Adverse Mov't $m	Adverse Movement Needed for $20 m Increase	Confidence in Current Basis
Additional New Over Cap Claims	157	SRES receive 600 additional claims from EQC (compared to 493 allowed)	
Settlement Outcome			
Rebuilds	540	Size ~4% higher than currently assumed	
Repairs	390	Scope Creep averages 37% (vs 32%) and 50 more shift to rebuild	
MUB's	180	Average size 11% higher than current assumed	
Cash settlements	290	Terms ~7% higher than currently allowed for	
Out of Scope, Temp Accomodation	105	Not materially exposed	
Arrow, SRES CHE	125	Not materially exposed	
Time to Settlement			
Throughput Delays	1,630	Mean term to completion increases by 3 months	
Inflation	1,630	Inflation over the runoff period 1% higher than assumed	

As the table indicates, we have identified three areas where we believe there is a higher than normal level of uncertainty attaching to the assumptions underpinning our valuation:

- Repair Costs – High levels of volatility in scope creep over the past year and the increased complexity of jobs yet to be completed mean there is a reasonable risk the average repair size could continue to increase.
- Multi-Unit Buildings – With only a handful of these properties completed to date, there is little information on which to base our average size assumption.
- Throughput Delays – There is a risk that the recent deterioration in delays will continue into the future as the outstanding jobs increase in complexity.

We will be endeavouring to gain more certainty around these aspects as part of our investigations accompanying our valuation at 30 June 2015.

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In response to the inherent uncertainties, we have maintained our risk margin at [redacted]% of the estimated liability (net of EQC contributions but gross of reinsurance recoveries). Under accounting standards, in response to the inherent uncertainty, it is expected that provisions will contain a margin sufficient to produce at least a 75% probability of sufficiency.

While the unique nature of the Canterbury events makes it impossible to derive with any accuracy a precise probability for various levels of risk margin, we are of the view that the margin adopted is sufficient to produce a probability of sufficiency of at least 75%.

Reliances and Limitations

This letter has been prepared for the use of SRES for the stated purpose. We understand that a copy of the letter may be provided to the Board of SRES. No other use of, nor reference to, our letter other than as required by the Crown, should be made without prior written consent from Finity, nor should the whole or part of our letter be disclosed to any unauthorised person.

Third parties, whether authorised or not to receive this letter, should recognise that Finity will not be liable for any losses or damages howsoever incurred by the third party as a result of them receiving, acting upon or relying upon any information or advice contained in the report.

Our letter should be considered as a whole. Members of Finity staff are available to answer any queries, and the reader should seek that advice before drawing conclusions on any issue in doubt.

Yours sincerely

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[redacted] [redacted]

[redacted] [redacted]

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