MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

11 September 2018

Ref: [redacted]

[redacted]

Dear [redacted]

Thank you for your email of 24 August 2018 to the Ministry of Business, Innovation and Employment (MBIE) requesting the following information under the Official Information Act 1982 (the Act):

> *Could you please get a copy of the report titled above [Weathertightness FAP valuation as at 30 June 2018] which I have been advised is available under the OIA.*

We have attached the latest FAP valuation report (July 2018). These valuation reports have been produced by independent actuaries since 2011 which feed into the budget and our appropriation. The Weathertight appropriation in the Vote Social Development and Housing is publically available in the Appropriation (2018/2019 Estimates) Bill: https://www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/BILL_78242/appropriation-201819-estimates-bill.

You may also be interested in the Evaluation of the Financial Assistance Package Report by MBIE dated October 2013. This is available online at: http://www.mbie.govt.nz/publications-research/research/building-and-construction/fap-full-evaluation-report.pdf

If you would like any further information please email oia@mbie.govt.nz with details of your request.

You have the right to seek an investigation and review by the Ombudsman of our response. Information about how to contact the Ombudsman is available at: www.ombudsman.parliament.nz or freephone: 0800 802 602.

Yours sincerely

[redacted]

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Ministry of Business, Innovation & Employment

11 July 2018

Weathertightness EAP Valuation as at 30 June 2018

MELVILLE JESSUP WEAVER

Willis Towers Watson Alliance Partner

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1 Summary

1.1 Introduction

This report has addressed the issue of the expected number of claims and cost of the Government's Financial Assistance Package ('FAP') Scheme which was enacted to assist homeowners in making repairs to their dwellings resulting from weathertightness problems.

The report was commissioned by and is addressed to Pete Hackshaw, National Manager, Weathertight Services, Housing & Tenancy Services Branch, Ministry of Business, Innovation & Employment (MBIE).

The Weathertight Services Group (WSG) administers the WHRS and the FAP Scheme.

1.2 Effective date and previous reports

The effective date of the valuation is 30 June 2018.

The previous report was at 31 December 2017 and we have produced reports annually as at 30 June since 2011.

1.3 Purpose

The brief for the valuation is to assess the resultant cost of the Government's Financial Assistance Package Scheme. The assessment considers only known claims which have registered to date with the WHRS. In prior years we have also considered future claims - the number of claims which we estimated would arise in the future. However with the close of the FAP Scheme effective 23 July 2016 we no longer need to consider this group.

We have not made any assessment of the ability of claimants to access the loans available from banks to meet their share of the repair costs. However, this is implicitly allowed for in the number of expected claims and the proposed FAP take up rates.

We confirm that the data is sufficient for us to complete the valuation and for the result to be of value.

1.4 Methodology and assumptions

The methodology and assumptions have been kept the same as that of the 31 December 2017 valuation.

1.5 Terminology

A single claim can be in respect of a number of dwellings. This is the case in many multi-unit claims. The analysis in this report is primarily in respect of dwelling numbers. We have used the terms claims and dwellings interchangeably throughout the report except where the differentiation is important.

There are several stages that a claim will progress through in the FAP scheme. The 2017 methodology recognises that there are three events of significant importance in the progression of a claim through the FAP scheme, with increasing certainty of resulting in a cost to MBIE:

1. Determination of capability – Chief Executive's decision on the claim's capability to participate in the FAP scheme.

2. Signing of a Home Owner Agreement (HOA) – this is not binding.

3. Claimant providing Notice to Proceed (NTP) to MBIE – this is binding and commits the claimant to repairing through the FAP.

A claim will ultimately either progress to full payment or will discontinue.

As claims progress through the process, there are cost estimates attached to them with increasing certainty (and often magnitude):

- Remediation Cost Estimate (RCE) which is a rough estimate performed by an assessor early in the process (MBIE would be liable for 25% of this cost),
- Agreed Repair Amount (ARA) which is decided before the legally-binding NTP is provided (MIBE would be liable for 25% of this cost),
- Total Milestone Payments (TMP) which are initially equal to 25% of the Agreed Repair Amount.

1.6 Results – Total claim numbers

The table below illustrates the total number of claims and dwellings we have considered in our analysis. They cover only the known claims which have been considered as 'FAP Capable', including those which have been fully paid and those which have discontinued.

State	Claims	Properties	25% Remediation Cost Estimate ($000)	Total Paid ($000)	Total Committed ($000)
Stand-Alone					
FAP Capable	61	61	7,137		
HOA Signed	69	69	4,255		
NTP Provided	85	85	6,688	5,270	2,304
Fully paid	423	423	22,944	26,800	
Discontinued	453	453	24,186		
Subtotal	1,091	1,091	65,210	32,070	2,304
Multi-Unit Complex					
FAP Capable	25	707	8,280		
HOA Signed	15	411	7,567		
NTP Provided	29	1,144	26,103	33,034	28,935
Fully paid	41	738	18,691	32,558	
Discontinued	65	771	14,776	120	
Subtotal	175	3,771	75,417	65,712	28,935
Total	1,266	4,862	140,627	97,782	31,239

The table breaks down the known claims/dwellings considered as FAP capable – these number 4,862, of which 2,477 are ongoing.

This number is in respect of dwellings (single and multi-unit) and so the total number of individual claims involved will be less. The pattern of the settlements is shown in the table below.

	FAP Settlement Year ended 30 June												
Split of Claims	2019	2020	2021	2022	2023	2024	2025	2026	…	2037	2038	Total	2017 Total
Stand-Alone													
FAP Capable	1	3	4	4	4	3	3	2	…			30	38
HOA Signed	12	16	12	8	5	3	2	1	…			62	74
NTP Provided	67	13	3	1					…			85	94
Subtotal	80	32	19	13	9	7	5	3	…			176	207
Multi-Unit Complex													
FAP Capable	2	13	28	40	44	43	39	34	…	3	17	394	455
HOA Signed	52	91	76	54	36	23	14	9	…		1	374	440
NTP Provided	650	212	100	57	35	23	16	11	…	1	6	1,144	1,198
Subtotal	704	315	205	151	115	89	68	54	…	5	24	1,912	2,093
Total	783	347	224	164	124	95	73	58	…	5	24	2,088	2,300

1.7 Results – Total Claim costs

The valuation period has been set at 20 years into the future. The expected costs are distributed over future years as shown in the following table of discounted costs of the settlements by settlement year.

	FAP Settlement Year ended 30 June												
Split of Claims	2019 $000	2020 $000	2021 $000	2022 $000	2023 $000	2024 $000	2025 $000	2026 $000	…	2037 $000	2038 $000	Total $000	2017 Total $000
Stand-Alone													
FAP Capable	107	414	593	614	565	473	365	287	…	6	16	4,162	4,735
HOA Signed	1,002	1,369	996	644	397	243	144	86	…			5,005	6,207
NTP Provided	4,205	801	191	54	18	6	3	1	…			5,280	5,601
Subtotal	5,315	2,583	1,780	1,311	980	722	512	374	…	6	16	14,447	16,543
Multi-Unit Complex													
FAP Capable	70	582	1,266	1,719	1,855	1,747	1,533	1,301	…	89	412	15,018	16,567
HOA Signed	1,703	2,920	2,418	1,686	1,085	673	406	253	…	3	18	11,578	14,895
NTP Provided	25,218	8,053	3,740	2,063	1,238	798	522	365	…	20	124	43,093	32,932
Subtotal	26,991	11,556	7,423	5,468	4,178	3,218	2,461	1,918	…	112	554	69,689	64,393
Total	32,306	14,139	9,204	6,779	5,158	3,940	2,973	2,292	…	119	570	84,136	80,936

The total cost estimate is $84.1 million with half of these costs falling in 2019 and 2020. The next quarter of costs fall in the following three years.

1.8 Comparing the results with earlier reports

Comparing the results as at 30 June 2018 with those as at 31 December 2017:

- The number of dwellings expected to settle under the FAP Scheme has decreased from 2,300 to 2,088.
- Expected future discounted claims costs have increased from $80.9 million to $84.1 million, despite 6 months of payments.

The increase in future discounted claims costs relates primarily to two Multi-Unit complexes which have had significant increases due to moving states.

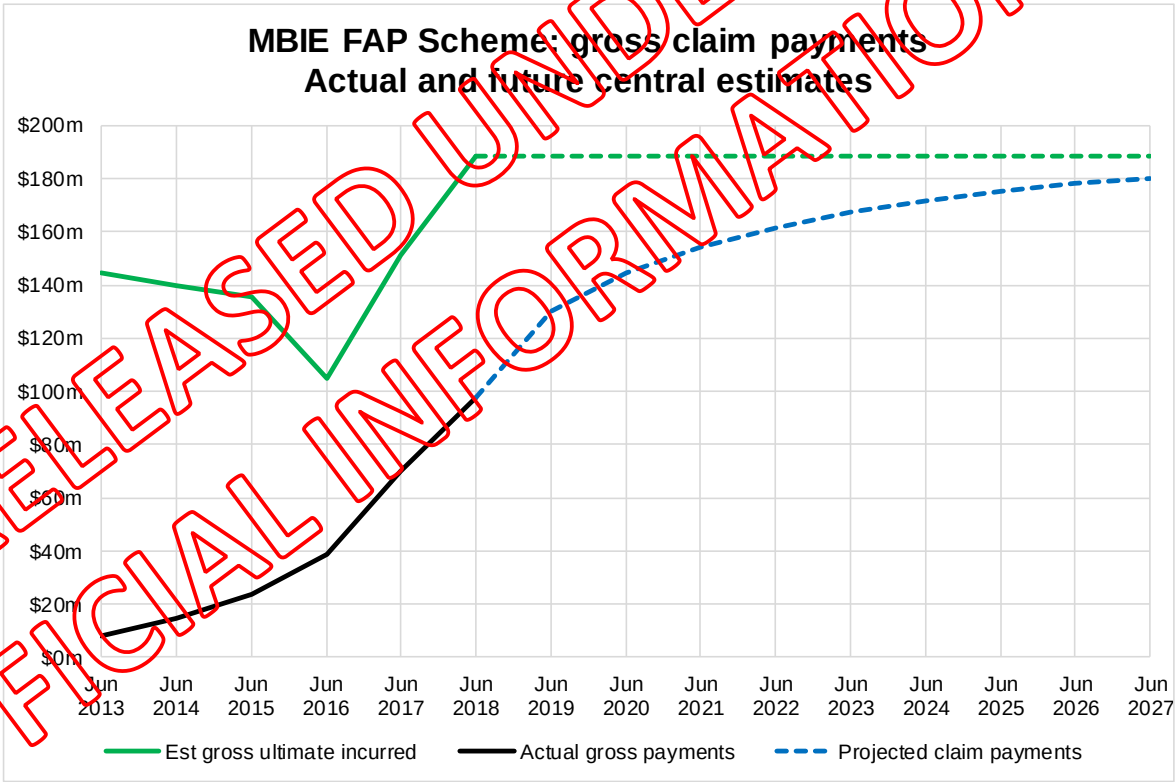
1.9 Ultimate claims costs

Historically, the valuation report has focussed on the estimated outstanding claims costs as this figure features in MBIE's financial statements.

An alternative figure is the *Ultimate Claims Costs* which is the current view of what the entire claims costs will be. It is the sum of the payments to date and the undiscounted outstanding claims costs.

For example, through to 30 June 2018, MBIE has paid $97.6 million in claim payments, according to Milestone payments data. The current undiscounted outstanding claims costs is $90.8 million. Therefore, the estimated ultimate claims costs are $188.5 million.

The chart below shows the development of the ultimate claims costs through time along with the payments to date. The solid green line is the estimated ultimate claims costs. We have projected the current estimate forwards. The black line is the actual payments to date and the blue dotted line illustrates our view of how the outstanding costs will be settled in the future.



The chart shows that there was a view, up until June 2017, that the FAP costs would be less than previously thought. This followed from the very low claim payments made.

For the June 2017 valuation we undertook, with MBIE staff, a comprehensive review of the data that was available and had discussions in respect of recent experience with Multi unit complexes. It was then apparent, that the prior year's reduction was premature as the costs arising from Multi unit claims surged over the 2017 year. Much of this relates to non-weathertight costs associated with the remediation, such as structural issues and passive fire systems which were not factored into the assumed costs.

The June 2018 valuation has seen a continuation of this trend with little change in the outstanding claims cost despite large payments made through the year.

It is not clear now whether the observations over the past this is a spike or a trend, but we would recommend further investigation into this after this valuation has been completed.

1.10 Variability of the results

The results are subject to a level of uncertainty and variability. The main uncertainties are:

- The progression of claims in the FAP Scheme.
- Ultimate cost of the claims.

1.11 Reliances

In completing this investigation we have relied upon data supplied by the WSG. As noted below, the quality of the results set out in this report is dependent on the accuracy and completeness of the data supplied.

We have also relied on factual and qualitative input from the WSG in gaining an understanding of the data held, and in setting the assumptions.

We stress the importance of a quality database designed to collect good claims data in the future from the FAP Scheme. We note considerable improvements in both the scope and quality of the data over the previous year.

1.12 Uncertainties and qualifications of the results

There are several reasons why the estimates are subject to a high level of uncertainty:

- The ultimate number and costs of leaky buildings claims is inherently uncertain
- The financial projection model is a simplification of the complex reality of the actual claims processes, and to the extent that hidden or un-modelled relationships are present the model will be unreliable
- Past experience may not be a good guide as to what will happen in the future
- The data on which the analysis is based, and from which the assumptions are derived, is limited.

The sources of uncertainty listed above are not intended to be exhaustive; rather they provide an indication of some of the challenges involved in estimating the liabilities.

Limitations in the data upon which the assumptions are based can impact on the accuracy of the estimate in the following ways:

- Errors in the data or missing data undermine the analysis supporting the assumptions.
- Assumptions relating to uniformity of risk within groups of buildings are a simplification. Many other factors besides those in the available data (such as different developers, architects, builders etc.) will influence the final outcomes.
- Limitations in the data limit the ability to test the reasonableness of assumptions going forward.

The sources of uncertainty described above mean that it is quite possible that the final numbers and costs of the FAP Scheme could be very different from our estimate.

The uncertainties in estimating the costs will always be difficult to control but those relating to data limitations can be mitigated given sufficient time, resources and determination.

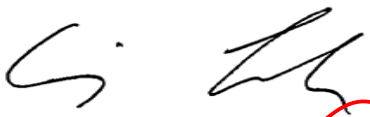
1.13 Limitations

This report should be read in its entirety and should not be used for any purpose other than that for which it was intended.

Individual sections of the report, including the summary, could be misleading if considered in isolation from each other. Further, the report should not be provided to or used by any parties other than the WSG, the Ministry, and the Ministry's auditors. These limitations have been provided with the intention of preventing the use of the report for purposes for which it was not intended.

In this report we provide the results of our calculations together with an outline of the matters considered and the methods applied to obtain these results. Opinions and estimates contained in this report constitute our judgement as at the date of the report.

1.14 Author



Craig Lough

Fellow of the NZ Society of Actuaries

2 Data including analysis

2.1 FAP process overview

The 2018 methodology recognises that due to the relatively standard nature of the process, past claims data will be a reasonably good guide to future claims behaviour. There is quite a difference in the behaviour of Stand Alone and Multi-Unit Complex claim types, and so these have been treated separately. The methodology recognises that there are three events of significant importance in the progression of a claim through the FAP scheme:

1. Determination of capability – Chief Executive's decision on the claim's capability to participate in the FAP scheme.

2. Signing of a Home Owner Agreement (HOA) – this is not binding.

3. Claimant providing Notice to Proceed (NTP) to MBIE – this is binding and commits the claimant to repairing through the FAP.

A claim will ultimately either progress to full payment or will discontinue.

The historical transition rates of claims as they have either continued to the next state or discontinued from their current state were analysed. A stochastic multi-state Markov model has been built to model future claims behaviour in order to determine which claims will ultimately result in payment and when this will occur.

In addition cost estimates and payment information has been used to determine an estimate of the ultimate cost of these claims. This is important where such information is missing from claims (for those still in the early stages), but also to capture an established phenomena of cost growth during claim progression.

As claims progress through the process, there are cost estimates attached to them with increasing certainty (and often magnitude):

- Remediation Cost Estimate (RCE) which is a rough estimate performed by an assessor early in the process (MBIE would be liable for 25% of this cost),
- Agreed Repair Amount (ARA) which is decided before the legally-binding NTP is provided (MIBE would be liable for 25% of this cost),
- Total Milestone Payments (TMP) which are initially equal to 25% of the Agreed Repair Amount.

The first two aren't usually updated over time but the third can change due to contract variations during the payment plan stage, and more commonly (and significantly) with the final claim payment.

Appendix A gives an overview of the FAP scheme and its background.

2.2 Data overview

We received the following files from MBIE:

- Claims data. The fields comprised comprehensive information on a claim, where such information is reliable and has reasonable coverage over all claims. A full data set was provided which was up-to-date as at 30 June 2018.
- Detailed payment information, both made and committed. This was up-to-date as at 30 June 2018.

- Detailed construction cost analysis for subset of claims.

The data fields received were similar to those received as at 31 December 2017. Further details are included in Appendix B.

Minor modifications were made to the data set, and this was checked with relevant MBIE staff. The processed data, which is inputted into the valuation model, was confirmed at a high level with MBIE staff.

We consider the data sufficient and appropriate for the purpose of the valuation. The quality of the results set out in this report relies on the accuracy and completeness of the data supplied. They also rely upon the understanding that we have of the FAP process.

2.3 Claims data analysis

The data received was reviewed. The following tables summarise the state of claims/dwellings as at 31 December compared to 30 June. The abbreviations stand for FAP Capable [E], HOA signed [H], NTP provided [N], fully paid [P] and discontinued [D].

Stand-alone claims

State change analysis Stand-Alone

State as at Dec-2017	State as as Jun-2018 E	H	N	Closed*	Total
Number of claims					
E	61	3	1	13	78
H	0	66	12	5	83
N	0	0	72	22	94
Total	61	69	85	40	255
Number of dwellings					
E	61	3	1	13	78
H	0	66	12	5	83
N	0	0	72	22	94
Total	61	69	85	40	255
Discounted provision as at Dec-2017					
E	$4.2m	$0.1m	$0.1m	$0.6m	$4.9m
H	$0.0m	$4.9m	$1.2m	$0.4m	$6.5m
N	$0.0m	$0.0m	$5.0m	$0.6m	$5.6m
Total	$4.2m	$4.9m	$6.2m	$1.6m	$17.0m
Discounted provision as at Jun-2018					
E	$4.2m	$0.1m	$0.2m	$0.0m	$4.5m
H	$0.0m	$4.9m	$1.2m	$0.0m	$6.1m
N	$0.0m	$0.0m	$3.9m	$0.0m	$3.9m
Total	$4.2m	$5.0m	$5.3m	$0.0m	$14.5m
Movement in discounted provision					
E	$0.0m	$0.1m	$0.1m	($0.6m)	($0.4m)
H	$0.0m	$0.1m	($0.1m)	($0.4m)	($0.4m)
N	$0.0m	$0.0m	($1.1m)	($0.6m)	($1.7m)
Total	$0.0m	$0.1m	($1.0m)	($1.6m)	($2.5m)

*Claim not present in Jun-2018 table

Multi-unit dwellings

State change analysis Multi-Unit Complex

	State as as Jun-2018				
State as at Dec-2017	E	H	N	Closed*	Total
Number of claims					
E	25	0	1	2	28
H	0	15	5	0	20
N	0	0	23	5	28
Total	25	15	29	7	76
Number of dwellings					
E	707	0	52	59	818
H	0	411	78	0	489
N	0	0	1,014	184	1,198
Total	707	411	1,144	243	2,505
Discounted provision as at Dec-2017					
E	$14.2m	$0.0m	$0.4m	$1.9m	$16.5m
H	$0.0m	$11.7m	$4.2m	$0.0m	$16.0m
N	$0.0m	$0.0m	$31.1m	$2.1m	$33.1m
Total	$14.2m	$11.7m	$35.7m	$4.0m	$65.6m
Discounted provision as at Jun-2018					
E	$14.3m	$0.0m	$5.8m	$0.0m	$20.2m
H	$0.0m	$11.9m	$10.5m	$0.0m	$22.4m
N	$0.0m	$0.0m	$27.1m	$0.0m	$27.1m
Total	$14.3m	$11.9m	$43.4m	$0.0m	$69.6m
Movement in discounted provision					
E	$0.1m	$0.0m	$5.4m	($1.9m)	$3.6m
H	$0.0m	$0.2m	$6.2m	$0.0m	$6.4m
N	$0.0m	$0.0m	($4.0m)	($2.1m)	($6.1m)
Total	$0.1m	$0.2m	$7.7m	($4.0m)	$4.0m

*Claim not present in Jun-2018 table

As can be seen there were a number of discontinuances of claims, as would be expected. In addition there was a progression of some claims to more advanced stages in the process (a diagram of claim progression can be found in Appendix C). Two multi-unit complex claims have had their provision increased by a total of $10 million.

The following table shows a summary of the claims data analysed by the classification described above.

State	Claims	Properties	25% Remediation Cost Estimate ($000)	Total Paid ($000)	Total Committed ($000)	Total Paid and Committed ($000)
Stand-Alone						
FAP Capable	61	61	7,137			
HOA Signed	69	69	4,255			
NTP Provided	85	85	6,688	5,270	2,304	7,574
Fully paid	423	423	22,944	26,800		26,800
Discontinued	453	453	24,186			
Subtotal	1,091	1,091	65,210	32,070	2,304	34,374
Multi-Unit Complex						
FAP Capable	25	707	8,280			
HOA Signed	15	411	7,567			
NTP Provided	29	1,144	26,103	33,034	28,935	61,969
Fully paid	41	738	18,691	32,558		32,558
Discontinued	65	771	14,776	120		
Subtotal	175	3,771	75,417	65,712	28,935	94,526
Total	1,266	4,862	140,627	97,782	31,239	128,900

Only those claims determined to be FAP capable are counted in the FAP discontinued phase. The following observations can be made:

- Multi-Unit Complex claims comprise 175 out of 1,266 (14%) of claims, but 3,771 out of 4,862 (78%) of properties.
- 41% of Stand Alone claims have already discontinued in the FAP scheme. Only 20% of Multi-Unit Complex properties have discontinued.
- 39% of Stand Alone claims have been fully paid so far, whereas only 23% of Multi-Unit Complex properties have been fully paid to date.
- For Stand Alone claims, 25% of the Remediation Cost Estimate (RCE) for fully paid claims was $22.9 million compared to $26.8 million actually paid. However, for those in the NTP state, the total milestone payments are $5.3 million compared to $6.7 million for 25% of the RCE. The payments on these claims could grow further, given the final claim payments haven't yet been made. This discrepancy may be a result of cost growth in recent years and is much larger for Multi-Unit Complex claims.
- For Multi-unit Complex claims, fully paid claims have $18.7 million for 25% of the RCE but actually cost $32.6 million. For Multi-Unit Complex claims in the NTP state, 25% of the RCE is $26.1 million compared to total milestone payments of $33.0 million (again which could grow further).
- 30% of Multi-Unit Complex properties (by dwelling) are still open but have not yet provided an NTP. Compare this to Stand Alone claims, which have a much lower proportion of 12%.

3 Assumptions

The assumptions used for this valuation have been updated where appropriate. Shown below is a discussion of how the experience over the past six months compares with the current assumptions. The assumptions (for both the current and prior valuation) were set based off experience to date as at 30 June 2018.

3.1 Future claim rates

The future claim rate is zero, as the FAP scheme is closed to new entrants.

3.2 Cost of repairs

The 30 June 2018 methodology attempted to quantify an established phenomenon of cost growth at each subsequent state as the claim progressed through the process. This was especially evident for Multi-Unit Complex claims, which comprised the majority of the remaining properties that are still progressing through the FAP process. The following table compares the cost analysis assumptions set used for the valuation as at 30 June 2018 with those used for the prior valuation.

	30 Jun 2018		31 Dec 2017	
	Stand-Alone	Multi-Unit Complex	Stand-Alone	Multi-Unit Complex
25% Remediation Cost Estimate per Property	73,329	38,636	71,226	38,636
Agreed Repair Amount : Remediation Cost Estimate Ratio	22%	40%	20%	40%
25% Agreed Repair Amount	89,398	53,900	85,425	53,900
Total Milestone Payments : 25% Agreed Repair Amount Ratio	11%	25%	12%	25%
Total Milestone Payments	98,781	67,299	95,457	67,299

The following comments are made of the analysis contained in the table:

- The central estimate for 25% of the Remediation Cost Estimate (RCE) per property is determined to be $73k for Stand Alone claims and $39k for Multi-Unit Complex claims. This is quantified early in the FAP process.
- The Agreed Repair Amount (ARA) is the amount agreed before the NTP is provided. For the assumptions, on average it is estimated to be 22% higher than the RCE for Stand-Alone claims and 40% higher for Multi-Unit Complex claims.
- The full amount paid (Total Milestones Payments, TMP) is usually higher than the ARA, due to either contract variations during the payment plan progression, or due to a higher than planned final claim payment. For the assumptions, on average it is estimated to be 11% higher than the RCE for Stand-Alone claims and 25% higher for Multi-Unit Complex claims.
- This effect of these two ratios of cost growth on the estimated average RCE is shown in slightly lighter text in the table. According to these assumptions, the TMP of Stand Alone claims is

grown by 35% compared to the original RCE. The total payments of Multi-Unit Complex claims are 74% higher. The corresponding figures as at 31 December are similar.

- The model will generate claims by sampling cost estimates and growth ratios from statistical distributions with these central values. A RCE is generated for claims which do not have one, with the central estimate given earlier. An ARA is generated if one does not exist by increasing the RCE by the ratio (central estimate stated earlier). The Total Milestone Payments predicted for a claim are found using a truncated statistical distribution for the growth ratio applied to the ARA (a lower bound is placed where the ratio is currently). This is how an allowance is made for costs to grow during the payment plan.

3.3 Future inflation rate

The cost growth ratios described previously implicitly model the effects of inflation. It is noted that the current construction market conditions are very different to several years ago when many of the cost estimates were quantified.

3.4 Discount rate

To discount the future cashflows we have applied the Risk-free Discount Rates for Accounting Valuation Purposes as at 30 June 2018 published by the Treasury on 30 June 2018. The table below summarises the rates used.

Settlement year ended 30 June																			
2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
1.8%	1.9%	2.1%	2.5%	2.8%	3.1%	3.4%	3.5%	3.6%	3.7%	3.7%	3.7%	3.8%	3.8%	3.8%	3.8%	3.8%	3.9%	3.9%	3.9%

3.5 FAP claim progression rates

We have adopted the transition times and discontinuance rates shown below. The following table compares the assumptions set using experience as at 31 December 2017 and how this analysis looks with 6 months of additional data.

	30 Jun 2018		31 Dec 2017	
	Discont-inuance	Transition Time (years)	Discont-inuance	Transition Time (years)
Stand-Alone				
FAP Capable [E]	46%	2.9	45%	2.9
HOA Signed [H]	11%	2.0	11%	2.0
NTP Provided [N]	0%	1.3	0%	1.6
Multi-Unit Complex				
FAP Capable [E]	39%	5.5	38%	5.6
HOA Signed [H]	9%	1.9	10%	1.9
NTP Provided [N]	0%	1.9	0%	1.9

The experience over the last 6 months have shown a slight decrease in the average claim progression time. Decreasing this assumption would have the effect of increasing the discounted value (due to less discounting applying over a shorter time frame).

4 Results – Claim numbers

4.1 Claims valued

The following table shows the claims/dwellings which have been deemed to be within the scheme and have an expected future cost to MBIE.

	Experience to date as at 30 June 2018		31 December 2017	
Split of Claims	Claims	Dwellings	Claims	Dwellings
Stand-Alone				
FAP Capable	61	61	78	78
HOA Signed	69	69	83	83
NTP Provided	85	85	94	94
Subtotal	215	215	255	255
Multi-Unit Complex				
FAP Capable	25	707	28	818
HOA Signed	15	411	20	489
NTP Provided	29	1,144	28	1,198
Subtotal	69	2,262	76	2,505
Total	284	2,477	331	2,760

There are 215 Stand-Alone claims and 69 Multi-Unit Complex claims (with 2,262 dwellings), still within the scheme.

4.2 Expected Settlements

The table below illustrates the period over which all the claims, split by dwelling type are expected to be settled.

	FAP Settlement Year ended 30 June												
Split of Claims	2019	2020	2021	2022	2023	2024	2025	2026	…	2037	2038	Total	2017 Total
Stand-Alone													
FAP Capable	1	3	4	4	4	3	3	2	…			30	38
HOA Signed	12	16	12	8	5	3	2	1	…			62	74
NTP Provided	67	13	3	1					…			85	94
Subtotal	80	32	19	13	9	7	5	3	…			176	207
Multi-Unit Complex													
FAP Capable	2	13	28	40	44	43	39	34	…	3	17	394	455
HOA Signed	52	91	76	54	36	23	14	9	…		1	374	440
NTP Provided	650	212	100	57	35	23	16	11	…	1	6	1,144	1,198
Subtotal	704	315	205	151	115	89	68	54	…	5	24	1,912	2,093
Total	783	347	224	164	124	95	73	58	…	5	24	2,088	2,300

Commenting on the table we see that after applying the discontinuance rates, there are a total of 2,088 dwellings which are expected to settle.

The valuation period was set until 2038. The years 2027-2036 are not shown in the table, but the full table (as with those for un/discounted costs) are shown in Appendix D. Claims in the simulation were not allowed to take any longer than 2037 to settle, and this curtailing of settlement time resulted in a small hump in the spread of claims for this final year. Discussions with MBIE revealed that there is no official date for the wrapping up of the FAP scheme for all participants already entered. However we understand a year often internally referenced is 2025, when the majority of claims will have been expected to have settled. This year corresponds to 92% of settlements in the model, so the modelled results align well with their expectations. Any future closure of the FAP scheme is therefore unlikely to materially impact on the validity of the modelled results.

5 Results – Claim costs by settlement year

5.1 Undiscounted costs

The costs shown are undiscounted for interest in the table below:

	FAP Settlement Year ended 30 June												
Split of Claims	2019 $000	2020 $000	2021 $000	2022 $000	2023 $000	2024 $000	2025 $000	2026 $000	…	2037 $000	2038 $000	Total $000	2017 Total $000
Stand-Alone													
FAP Capable	108	425	622	658	621	536	427	347	…	11	30	4,769	5,466
HOA Signed	1,014	1,406	1,043	689	437	275	169	104	…	1		5,299	6,604
NTP Provided	4,233	821	200	57	20	7	3	1	…			5,343	5,718
Subtotal	5,354	2,652	1,865	1,405	1,078	818	599	452	…	12	30	15,411	17,787
Multi-Unit Complex													
FAP Capable	71	599	1,327	1,844	2,042	1,980	1,794	1,575	…	162	787	18,341	20,581
HOA Signed	1,722	3,000	2,532	1,806	1,193	762	475	306	…	6	35	12,389	16,042
NTP Provided	25,390	8,263	3,915	2,209	1,361	904	610	441	…	36	238	44,678	34,064
Subtotal	27,183	11,862	7,775	5,859	4,596	3,645	2,879	2,322	…	204	1,059	75,408	70,688
Total	32,537	14,514	9,640	7,264	5,674	4,463	3,477	2,774	…	216	1,089	90,820	88,475

The split of the undiscounted costs between those arising in the next 12 months and thereafter is $32.5 million and $58.3 million respectively. The full table is included in Appendix D.

5.2 Discounted costs

The table below applies the discount rates to the undiscounted costs shown above.

	FAP Settlement Year ended 30 June												
Split of Claims	2019 $000	2020 $000	2021 $000	2022 $000	2023 $000	2024 $000	2025 $000	2026 $000	…	2037 $000	2038 $000	Total $000	2017 Total $000
Stand-Alone													
FAP Capable	107	414	593	614	565	473	365	287	…	6	16	4,162	4,735
HOA Signed	1,003	1,369	996	644	397	243	144	86	…			5,005	6,207
NTP Provided	4,205	801	191	54	18	6	3	1	…			5,280	5,601
Subtotal	5,315	2,583	1,780	1,311	980	722	512	374	…	6	16	14,447	16,543
Multi-Unit Complex													
FAP Capable	70	582	1,266	1,719	1,855	1,747	1,533	1,301	…	89	412	15,018	16,567
HOA Signed	1,703	2,920	2,418	1,686	1,085	673	406	253	…	3	18	11,578	14,895
NTP Provided	25,218	8,053	3,740	2,063	1,238	798	522	365	…	20	124	43,093	32,932
Subtotal	26,991	11,556	7,423	5,468	4,178	3,218	2,461	1,918	…	112	554	69,689	64,393
Total	32,306	14,139	9,204	6,779	5,158	3,940	2,973	2,292	…	119	570	84,136	80,936

The discounted cost amounts to $84.1 million. This compared to $80.9 million as at 31 December 2017. Half of these costs fall within the next two years and a quarter within the following three years. The full table is included in Appendix D.

5.3 Range of results

The results are subject to a level of uncertainty and variability. The uncertainties are around:

- The progression of claims in the FAP Scheme.

- Ultimate cost of the claims.

Review of each assumptions separately

The impact of changing the assumptions are shown in Appendix E. The largest effect shown is for the TMP:ARA cost growth ratio increasing or decreasing by 10%. This causes the total discounted liability to vary from $72.0 million to $96.3 million. This is also one of the assumptions with the least amount of certainty.

Variation within model

The following table illustrates the percentiles of total discounted cost taken from the simulation.

	Expected Cost	Probability of Adequacy			
		75%	85%	90%	95%
	$m	$m	$m	$m	$m
	84.1	88.2	92.6	96.3	103.9

Based on our assumptions we can say with 85% certainty that the discounted cost will be $92.6 million or less.

Ministry of Business, Innovation & Employment

11 July 2018

Weathertightness EAP Valuation as at 30 June 2018 Appendices

MELVILLE JESSUP WEAVER

Willis Towers Watson Alliance Partner

A Background

A.1 Weathertightness problem

The introduction of the Building Act 1991 led to less rigid regulation within the building industry, and a consequence was many dwellings were constructed that were potentially susceptible to damage due to weather related issues. By 2002 it was evident that some dwellings built under the new regulations were experiencing weathertightness problems.

During the 2002 year, a report commonly referred to as the Hunn Report into Weathertightness was released identifying a number of factors contributing to leaky buildings. It included recommendations that aimed to address the systemic building industry failures that had led to the weathertightness issues.

The report led to the formation of the Weathertight Homes Resolution Service, changes to the Building Act, and the introduction of the Weathertight Homes Resolution Services Act 2002. The purpose of the Act was "to provide owners of dwelling houses that are leaky buildings with access to speedy, flexible, and cost-effective procedures for assessment and resolution of claims relating to those buildings".

The weathertightness problems in dwellings throughout New Zealand have continued to emerge over time.

In July 2009 – the Ministry produced a report from PwC (PwC report) which estimated the number of weathertightness failures at 42,000 and a total cost of $11.3 billion. This cost included professional fees incurred in settling claims.

A.2 FAP Scheme introduction

The Financial Assistance Package Scheme was a major initiative introduced to address the New Zealand weathertightness problem.

Prior to the introduction of the FAP Scheme claimants would need to go through the Weathertight Homes Tribunal or the High Court for compensation. It was believed that many homeowners with leaky buildings were not able to access the funds necessary to finance the resolution of their weathertightness issue or were reticent to enter the court/tribunal system.

Under the FAP Scheme the Government would cover 25% of repair costs of a claimant's affected building. If a Territorial Authority (TA) provided the Code Compliance Certificate for the building, the TA would be liable for a further 25% of the costs. Some TA's chose not to participate in the Scheme. The introduction of the Scheme was seen to be a big step forward in dealing with the weathertightness issue in properties which otherwise may have been left to deteriorate.

In order to be eligible for the FAP Scheme a homeowner must cease proceedings through any other method.

A.3 FAP Scheme features

The key features of the FAP Scheme are:

- The Government and Council are each liable for 25% of the repair costs
- The Government is liable for 25% of the costs in respect of dwellings certified by a private certifier.

- Where any repair work started after November 2009 but before the Scheme commenced it is eligible for the FAP Scheme
- For other existing claims the Councils can choose, on a completely discretionary basis, whether or not to allow a claimant into the FAP Scheme. Where there is insurance in place to cover part of the Council's costs, the FAP arrangement will void any existing insurance for a claim. Therefore a Council will generally not allow a claim into the FAP Scheme where they assess that their cost will increase by virtue of the FAP, as in cases where their cost would exceed their own insurance excess level. For the more recent years Councils have no insurance so this will not be an issue.
- New and existing claims are excluded if they take any proceedings against Councils.
- Claimants can continue to claim against other parties to offset their share of the repair costs.
- All claims deemed an eligible claim by the WHRS will be able to apply to the FAP Scheme.
- Claims had to be lodged by 23 July 2016. Note that after 31 December 2011 no property issued with a CCC can apply to the WHRS.

A.4 FAP Scheme progress to date

The Scheme was introduced in July 2011 and the following comments are in respect of how we see the Scheme has operated to date.

- The number of new claims both lodged with the WHRS and in the High Court has been falling off. This is partly due to leaky homes problem being worst over the period 1996 to 2003 and the 10 year limitation for making new claims.
- The actual process of managing claims through the FAP Scheme is now working. Earlier on in the Scheme some claimants were finding the process difficult and so readily switched to the alternative methods.
- The initial claims that went all the way through the process are ones which started pre the introduction of the Scheme where the owner had already started to repair the property.
- The management of multi-unit claims is difficult due to the problem of getting all the owners to agree to the necessary homeowners' agreement. Where this is not possible by voluntary agreement a number of corporate bodies have taken legal action to gain the necessary legal consents, however this takes time. This is reflected in the lower take up rate for multi-units as well as the slower movement between phases in the process. But there are signs this is better now than previously the case.
- Council and WSG have demonstrated some flexibility in their application of the Scheme where it is clear that allowing the owner into the Scheme would mean avoid costly legal action to all parties and achieve the goal of repairing the property.
- The Scheme has resulted in some claims being made which would have not received the same level of contribution from the Councils and Government if they had chosen to go through an alternative resolution process.
- While claims lodged under the WHRS Act 2002 can remain open indefinitely claims under the FAP Scheme must be lodged by 23 July 2016.
- While a high number of pre July 2011 claims expressed interest in the Scheme only a limited number have progressed to date. Further details are included in this advice.
- The repairs do not cover betterment. While the costs of this are born by the claimant we understand that there is some flexibility around this.
- Some additional claims have arisen involving private certifiers which are looking to receive the Government's 25% contribution to repairs.

- Some claimants in addition to receiving the full 50% from the FAP Scheme are able to achieve contributions from other parties who would otherwise have been liable under the alternative resolution processes. The possibility exists that some parties will still be chased for their "share" after the repairs are completed: this may involve legal action.
- The numbers claiming have been less than originally expected.
- There are no implications for the scheme for commercial properties.

B MBIE claims data received

B.1 Data files

- Claims data – bulk of data contained within this file
- Milestone payments paid data
- Milestone payments committed data
- Detailed construction cost analysis for subset of claims.

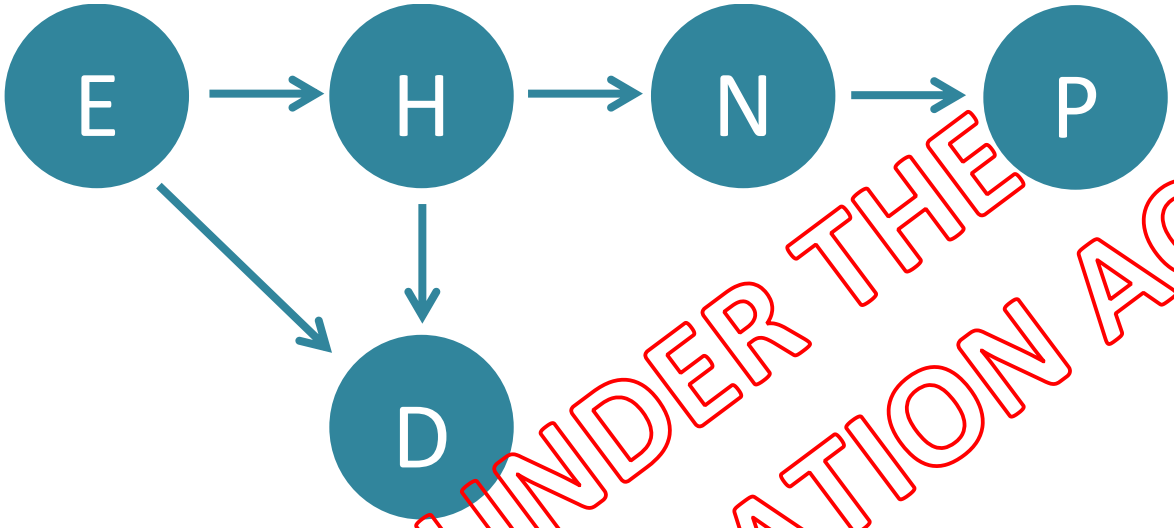
B.2 Data fields

- Claim Number
- Complex Name
- Suburb
- City
- Territorial Authority
- Property Type
- Property Title Type
- Multi or Stand Alone Claim Type
- Total Properties In Claim
- Total Units In Complex (Master)
- Maximum Remediation Cost Estimate (Total)
- Most Recent Remediation Cost Estimate
- Proportion for Final Cost Estimate
- Final Cost Estimate Outcome
- Total Remediation Cost Estimate
- Application Form Received Date (dd Mmm yyyy)
- Formally Received Stop-Clock Date (dd Mmm yyyy)
- Earliest Assessment Report Sign-Off Date (dd Mmm yyyy)
- Latest Assessment Report Sign-Off Date (dd Mmm yyyy)
- Is Claim Eligible (With 'Overturned-Eligible' Check)?
- Eligibility Decision Date (dd Mmm yyyy)
- Claim Closed Date (dd Mmm yyyy)
- Claim Closed Reason
- Earliest Date Relevant Building Consent Issued (dd Mmm yyyy)
- Latest Date Relevant Building Consent Issued (dd Mmm yyyy)
- Earliest Date of Code Compliance Issued (dd Mmm yyyy)
- Latest Date of Code Compliance Issued (dd Mmm yyyy)
- FAP Interest
- Is Claim FAP Capable?

- Claim Not FAP Capable Reason
- FAP vs FAP Transition (Amended)
- Territorial Authority FAP Claim Status
- Territorial Authority FAP Status
- Territorial Authority FAP Decline Reason
- Count of FAP Documents
- Count FAP Documents Active
- Count HOAs signed
- Earliest Claimant Home Owner Agreement Received Date (dd Mmm yyyy)
- Latest Claimant Home Owner Agreement Received Date (dd Mmm yyyy)
- Count Notices to Proceed Received
- Earliest Claimant Notice To Proceed Received Date (dd Mmm yyyy)
- Latest Claimant Notice To Proceed Received Date (dd Mmm yyyy)
- Earliest Crown Payment Date (dd Mmm yyyy)
- Latest Crown Payment Date (dd Mmm yyyy)
- Months between First and Last Crown Payments
- Crown Payments To Date
- Earliest Final Payment Made Date (dd Mmm yyyy)
- Latest Final Payment Made Date (dd Mmm yyyy)
- Claim Status
- Claim Status Category
- FAP Status (Current)
- Tribunal Served Date (dd Mmm yyyy)
- Resolution Status
- Committed Schedule Number
- Committed Schedule Description
- Committed Schedule Item Description
- Crown Committed Amount
- Crown Payment Amount
- Crown Payment Date
- Milestone Payment Status

C FAP Claim Progression Analysis

A multi-state Markov model was built to model the progression of claims through the FAP process. This is a stochastic model which randomly samples parameters from fitted statistical distributions. A large number of simulation runs are performed and the results are averaged. The following diagram illustrates the modelled states in the process:



The abbreviations stand for FAP Capable [E], HOA signed [H], NTP provided [N], fully paid [P] and discontinued [D].

D Full Result Tables

D.1 Settled dwellings

	FAP Settlement Year ended 30 June																			
Split of Claims	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Total
Stand-Alone																					
FAP Capable	1	3	4	4	4	3	3	2	2	1	1	1	1								30
HOA Signed	12	16	12	8	5	3	2	1	1												62
NTP Provided	67	13	3	1																	85
Subtotal	80	32	19	13	9	7	5	3	2	2	1	1	1								176
Multi-Unit Complex																					
FAP Capable	2	13	28	40	44	43	39	34	28	24	19	16	12	10	8	6	5	4	3	17	394
HOA Signed	52	91	76	54	36	23	14	9	6	4	2	2	1	1	1					1	374
NTP Provided	650	212	100	57	35	23	16	11	8	6	5	4	3	2	2	1	1	1	1	6	1,144
Subtotal	704	315	205	151	115	89	68	54	42	33	26	21	16	13	10	8	7	6	5	24	1,912
Total	783	347	224	164	124	95	73	58	45	35	27	22	17	14	11	9	7	6	5	24	2,088

D.2 Undiscounted claims costs

	FAP Settlement Year ended 30 June																			
Split of Claims	2019 $m	2020 $m	2021 $m	2022 $m	2023 $m	2024 $m	2025 $m	2026 $m	2027 $m	2028 $m	2029 $m	2030 $m	2031 $m	2032 $m	2033 $m	2034 $m	2035 $m	2036 $m	2037 $m	2038 $m	Total $m
Stand-Alone																					
FAP Capable	0.1	0.4	0.6	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.8
HOA Signed	1.0	1.4	1.0	0.7	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
NTP Provided	4.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
Subtotal	5.4	2.7	1.9	1.4	1.1	0.8	0.6	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	15.4
Multi-Unit Complex																					
FAP Capable	0.1	0.6	1.3	1.8	2.0	2.0	1.8	1.6	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.8	18.3
HOA Signed	1.7	3.0	2.5	1.8	1.2	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
NTP Provided	25.4	8.3	3.9	2.2	1.4	0.9	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	44.7
Subtotal	27.2	11.9	7.8	5.9	4.6	3.6	2.9	2.3	1.8	1.5	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	1.1	75.4
Total	32.5	14.5	9.6	7.3	5.7	4.5	3.5	2.8	2.1	1.7	1.3	1.0	0.8	0.7	0.5	0.4	0.3	0.3	0.2	1.1	90.8

D.3 Discounted claims costs

	FAP Settlement Year ended 30 June																			
Split of Claims	2019 $m	2020 $m	2021 $m	2022 $m	2023 $m	2024 $m	2025 $m	2026 $m	2027 $m	2028 $m	2029 $m	2030 $m	2031 $m	2032 $m	2033 $m	2034 $m	2035 $m	2036 $m	2037 $m	2038 $m	Total $m
Stand-Alone																					
FAP Capable	0.1	0.4	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
HOA Signed	1.0	1.4	1.0	0.6	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
NTP Provided	4.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
Subtotal	5.3	2.6	1.8	1.3	1.0	0.7	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4
Multi-Unit Complex																					
FAP Capable	0.1	0.6	1.3	1.7	1.9	1.7	1.5	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.4	15.0
HOA Signed	1.7	2.9	2.4	1.7	1.1	0.7	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
NTP Provided	25.2	8.1	3.7	2.1	1.2	0.8	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	43.1
Subtotal	27.0	11.6	7.4	5.5	4.2	3.2	2.5	1.9	1.5	1.1	0.8	0.7	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.6	69.7
Total	32.3	14.1	9.2	6.8	5.2	3.9	3.0	2.3	1.7	1.3	1.0	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.1	0.6	84.1

E Sensitivity Analysis

Assumptions	↑ $m	↓ $m
Central estimate	84.1	
Remediation Cost Estimate 10%	85.0	83.3
Agreed Repair Amount : Remediation Cost Estimate ratio 10%	87.7	80.6
Total Milestone Payments : Agreed Repair Amount ratio 10%	96.3	72.0
Discontinuance transition rates multiplier 2x	76.9	89.7
Transition rates multiplier 2x	86.6	79.2
Discount rates 2%	79.1	89.5

The table above shows the effects of varying the central estimates of modelled parameters in the model:

- The first assumption analysed is the effect of increasing/decreasing the modelled RCE by 10%. Because the majority of claims have a RCE, and this assumption is only applied where none exists, this effect is not large.
- The second assumption analysed is the effect of increasing/decreasing the modelled ratio of ARA:RCE where no ARA exists. Because a significant number of claims do not have an ARA, the effect is larger.
- The third assumption analysed is the effect of increasing/decreasing the modelled ratio of TMP:ARA by 10%. The TMP predicted for a claim are found using a truncated statistical distribution for the growth ratio applied to the ARA (a lower bound is placed where the ratio is currently). This is how an allowance is made for costs to grow during the payment plan stage. Because all claims are affected by this, this effect is the largest shown.
- The fourth assumption analysed is where the transition rates to the discontinued state are double/halved. This has a similarly large effect as altering the assumption above.
- The fifth assumption analysed is where the transition rates are all double/halved. This will have the effect of halving/doubling the average time spent in a state (and will not affect discontinuance). Because this assumption change only affects the discounting, the effect is not as large.
- The final assumption analysed is that of increasing/decreasing the discount rates by 2%. A reasonable effect is shown due to the long processing time for Multi-Unit Complex claims.