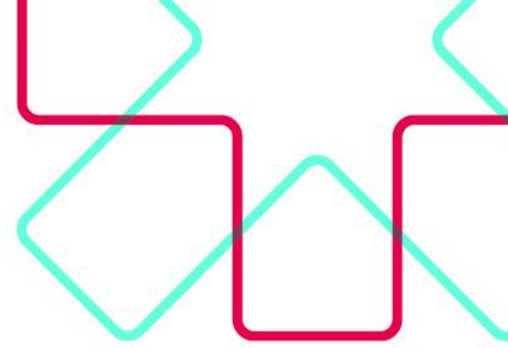


COSTS OF RURAL FIRE SERVICING

Final Report

27 January 2017





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PREFACE

This report has been prepared for New Zealand Fire Service by Nick Hunn, Nick Carlaw and Tim Borren from MartinJenkins (Martin, Jenkins & Associates Limited).

MartinJenkins advises clients in the public, private and not-for-profit sectors, providing services in these areas:

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We have not been required, or sought, to independently verify the accuracy of information provided to us. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied.

The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise. We reserve the right, but will be under no obligation, to review or amend this Report if any additional information, which was in existence on the date of this Report, was not brought to our attention, or subsequently comes to light.



EXECUTIVE SUMMARY

Background and scope

Following an extensive review of New Zealand's fire services, Cabinet agreed to a unified, national fire service that fully integrates New Zealand's urban and rural fire services. The new organisation is intended to be called Fire and Emergency New Zealand (FENZ). As part of the transition process, the Minister has requested an estimate of the baseline cost of the rural fire service to inform the transition to the new organisation and to understand its likely costs.

This report presents the findings of our analysis of the current baseline costs of servicing New Zealand's rural fire sector. The primary purpose of this cost analysis is to inform the setting of the fire service levy for 2018/19 and the development of the FENZ operating budgets for the 2017/18 financial year.

The scope of the analysis in this report includes costs related to rural fire incurred by: 12 enlarged rural fire districts (ERFDs); 26 rural fire authorities (RFAs) (including Territorial Authorities in their capacity as RFAs); and forestry companies. The costs of the National Rural Fire Authority (NRFA) are also presented, though these costs are currently funded from the New Zealand Fire Service (NZFS) budget, so will not require additional budget when FENZ is established. We have been advised that the Department of Conservation (DOC) and New Zealand Defence Force (NZDF) rural fire-related activities will also be fiscally neutral with respect to FENZ, so those costs are not included in this report.

The analysis includes both direct costs and in-kind costs.

Approach

Costs for the 2013/14, 2014/15 and 2015/16 financial years were provided by ERFDs, RFAs and major forestry companies using a tailored data template developed in collaboration with FENZ subject matter experts. The template included operating costs, capital costs (historical and planned), in-kind costs and external income, and had detailed guidance on how it should be completed.

Following distribution of the data template, the project team¹ held a number of group meetings with key personnel from selected RFAs, ERFDs and forestry companies. The schedule of meetings was designed to provide direct contact with a representative mix of different types of organisations, wide geographical coverage, and contact with many of the largest organisations. 26 ERFD/RFA and 14 forestry companies had face-to-face contact. Those not visited were contacted by phone.

Gaps in the data were estimated using methodologies developed and tested with subject matter experts.

¹ Each meeting was attended by personnel from MartinJenkins and rural sector experts comprising one or more of the following: Rob Goldring, Manager, Rural Fire based in Auckland; Mike Grant, PRFO Southland ERFD; and Geoff Cameron, Registered Forestry Consultant.



Reliability of data

We consider the survey response rate to be very high, providing us with a sound base for estimating total costs. Of the 43 RFAs, ERFDs and TAs, 35 returned data (representing a response rate of 81 percent by number, and 94 percent on a cost basis). Of the 19 major forestry companies that were contacted, 15 returned data (79 percent by number, and 70 percent by cost).

Our work also revealed that the majority of District Councils maintain specific cost centres/business units for rural fire activities, which alleviated our initial concerns that it may be difficult for Councils to isolate their costs related to rural fire.

As measurement of in-kind costs was viewed by NZFS as a potential risk area, the importance of recording in-kind costs was heavily reinforced in the respondent meetings and phone calls. While some risk will always remain around collecting partially hidden or dispersed costs, our view is that this data collection exercise will have identified almost all of the material in-kind costs.

Internal validation checks were undertaken and respondents were contacted in order to understand, or correct, any anomalies or outliers that were identified. The validation process also involved a practitioner-to-practitioner meeting attended by the National Rural Fire Officer, rural fire experts, personnel from the FENZ Transition Project and Department of Internal Affairs (DIA) personnel involved in the levy setting and budget development processes.

We believe the overall data-gathering process has been a successful one, assisted greatly by early buy-in and cooperation from principal rural fire officers, forestry company personnel, and other rural fire representatives who provided information for the report.

Results

Operating costs

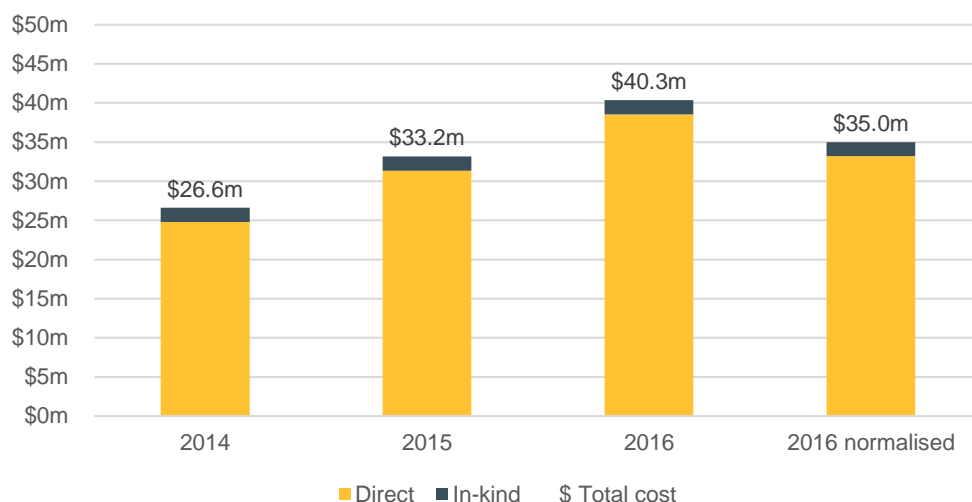
Our point estimate of total “normalised” operating costs (both direct and in-kind costs) for ERFDs, RFAs and forestry companies, for the 2016 financial year, is \$35 million. The normalised cost has been calculated using an average fire suppression cost based on the last 10 years, and excludes insurance premiums related to fire suppression.

The operating cost for the National Rural Fire Authority was a further \$2.7 million. NRFA costs have been reported separately from the total cost as they are to be funded from NZFS existing budgets, and do not represent additional funding required by FENZ. NRFA costs will not affect the FENZ budget or levy-setting process.

Amounts paid by ERFDs, RFAs and the NRFA to Scion (a New Zealand Crown Research Institute specialising in fire-related research and development) are included in the reported costs. Funding provided to Scion by other major funders (Ministry of Business, Innovation and Employment, DOC and the Forest Owners Association) have not been included, as it is not clear how much of this funding would specifically be related to rural fire.

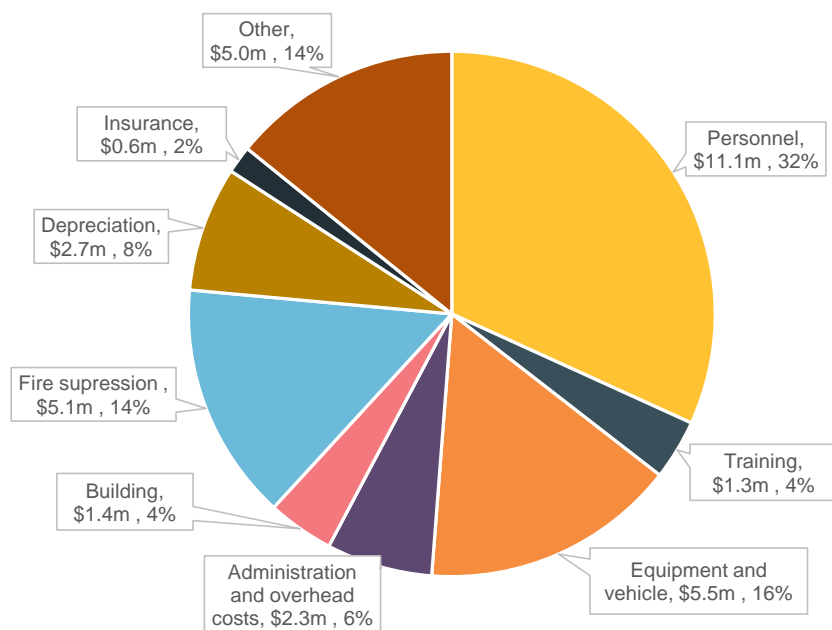


Figure 1: Actual operating costs for ERFDs, RFAs and forestry companies for the last 3 financial years - and 2016 normalised costs



Note: in-kind costs were collected for the latest year only – but have been applied to earlier years on the same basis. 2016 normalised costs remove the 2016 fire suppression cost and replace that with an average cost of the last 10 years; and exclude insurance premiums for fire suppression cover.

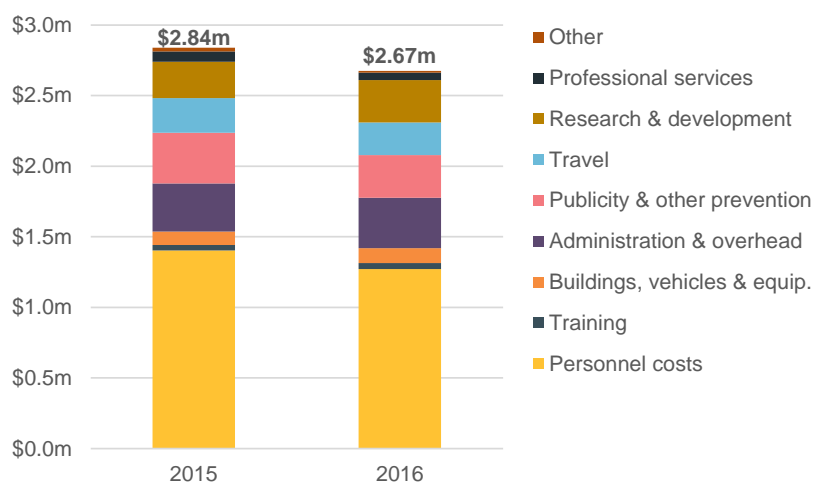
Figure 2: 2016 normalised operating cost by cost category, for ERFDs, RFAs and forestry companies (total \$35m)



Note: Insurance costs in the 2016 normalised figures exclude \$712,000 of premiums for fire suppression cover.



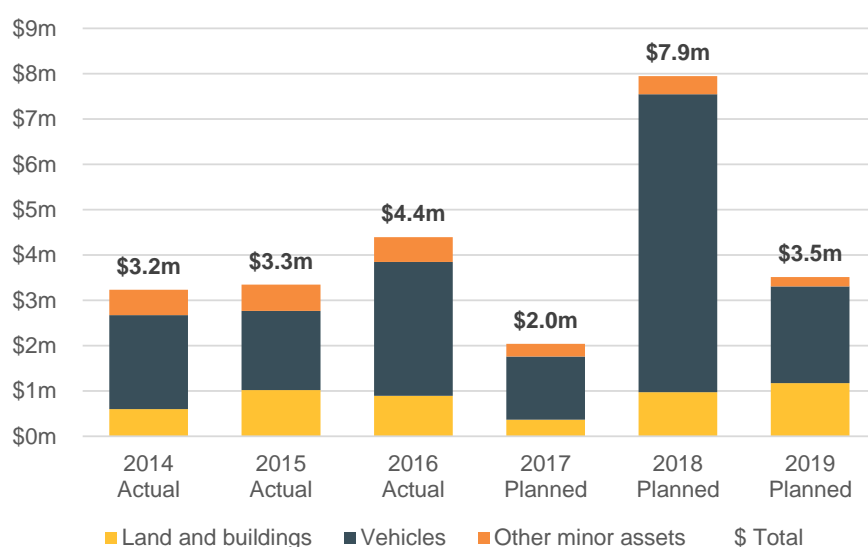
Figure 3: NRFA operating costs for the last two financial years



Capital costs

Capital costs for the 2016 financial year, for those entities that responded to the survey, were \$4.4 million. We have not attempted to extrapolate capital costs to entities that were unable to respond to the survey. Our assessment is that the 2016 costs shown in Figure 4 below could potentially be understated by approximately 5% to 10%.

Figure 4: Actual capital costs for the last 3 years and planned capital costs for the next 3 years



The following sections of this report set out the approach, methodology and basis for these results – and additional detail around the components of the costs, the normalisation adjustments and the relative costs of ERFDs, RFAs and forestry companies.



INTRODUCTION

Following an extensive review of New Zealand's fire services, Cabinet agreed to a unified, national fire service that fully integrates New Zealand's urban and rural fire services. The new, integrated organisation is intended to be called Fire and Emergency New Zealand (FENZ). As part of the transition process, the Minister has requested an estimate of the baseline cost of the rural fire service to inform the transition to the new organisation and to understand its likely costs.

This report presents the findings of our analysis of the current baseline costs of servicing New Zealand's rural fire sector. The primary purpose of this cost analysis is to inform the setting of the fire service levy for 2018/19 and the development of the FENZ operating budgets for the 2017/18 financial year.

This report builds on our earlier, interim report dated 9 December 2016 that provided details of the operating and capital costs of the sector.

Scope

The scope of the analysis provided in this report includes all costs associated with the rural fire service, except for costs incurred by the Department of Conservation and the New Zealand Defence Force². It includes operating and capital costs for the following entities:

- 12 enlarged rural fire districts (ERFDs)
- 26 rural fire authorities (RFAs) (including Territorial Authorities (TAs) in their capacity as RFAs and forestry amalgams such as Bay Forests Rural Fire District)
- forestry industry companies, to the extent they provide rural firefighting services
- the National Rural Fire Authority (NRFA).

The analysis includes both direct costs and in-kind costs. For the purposes of the report:

- direct costs are defined as those costs that are incurred directly by the entity (eg ERFDs and Councils in their capacity as an RFA)
- in-kind costs are contributions to an ERFD or RFA which are not paid for, either partially or in full, by those entities.

External income in the form of grants and donations (both monetary and assets) from community or private organisations was also collected. These amounts provide an indication of external revenue streams that could potentially reduce once FENZ is operational.

² Our Terms of Reference required us to collect cost information on DoC and NZDF. However, NZFS subsequently determined that cost data on these entities would be collected separately to this project because their costs will not affect the FENZ budget and levy setting process.



Focus on current actual costs – to inform future decisions

Operating and capital costs included in this analysis comprise all the current costs of servicing rural fire activities for the sub-sectors that have been surveyed. In future, it may be determined that some of these current costs are not to be funded by FENZ (for example, forestry company fire-break or security costs) and some of the current costs will undoubtedly change in the future operating model (for example, through centralised purchasing and other economies of scale).

The analysis in this report has not pre-empted the funding decisions or estimated the impact of any future events. The report presents costs as they currently stand today. It will be the responsibility of FENZ to adapt and filter these results to derive the numbers that it ultimately feeds into its levy setting and budget development processes.



METHODOLOGY

Data collection and validation

Approach

A reference group, with membership from the rural fire sector, NFRA and NZFS³, provided guidance to the project to ensure alignment with the FENZ Transition Project workstreams and levy setting and budget development processes.

The approach to data collection was a collaborative effort between FENZ, subject matter experts and MartinJenkins. The methodology was carefully designed to ensure information received was accurate and fit-for-purpose to identify the cost of rural fire. Care was taken to co-ordinate the data collection request with other FENZ workstreams to minimise the burden on respondents.

Our approach comprised the following steps:

- An introductory letter was sent from the FENZ Transition team to RFAs, ERFDs and major forestry companies outlining the purpose of the project, general approach and what would be required of them.
- An introductory presentation was made to a Principal Rural Fire Officers (PRFO) meeting in Wellington.
- A data request template was developed in collaboration with the FENZ Transition Project stakeholder engagement team and reviewed by the Reference Group. The templates were sent to:
 - PRFOs and Council Chief Executives of Territorial Authority RFAs
 - PRFOs and Board Chairs of ERFDs
 - key contacts of major forestry companies (based on advice provided by the Forest Owners' Association).
- A briefing by the FENZ Transition Project stakeholder engagement and communications workstreams provided the project team with key messages on background, potential issues and answers to likely questions.
- Following distribution of the data template, the project team⁴ held a number of group meetings with key personnel from selected RFAs, ERFDs and forestry companies. The schedule of meetings was designed to provide direct contact with a representative mix of different types of organisations, wide geographical coverage, and contact with many of the largest organisations.

³ The Reference Group comprised Kevin O'Connor (NFRA), Rachael Thorp (PRFO, Wellington), Gary Lockyer (FENZ Transition Team), Mike Grant (Southern ERFD) and Iain MacDonald (NZFS).

⁴ Each meeting was attended by personnel from MartinJenkins and rural sector experts comprising one or more of the following: Rob Goldring, Manager, Rural Fire based in Auckland; Mike Grant, PRFO Southland ERFD; and Geoff Cameron, Registered Forestry Consultant.



A good proportion of respondents attended the scheduled meetings, where the purpose and approach to filling in the template was explained. This reduced risks around inconsistency of data returns across organisations. A meeting summary is provided in Appendix 1.

- Any organisations that were not visited were contacted by phone. These calls ensured that the templates had been forwarded to the right people, and that the templates were understood and on track for completion.
- Daily reports on returns were provided to the Reference Group to monitor the return rate and quality of the survey data. Follow-up phone calls were made to all survey respondents who had not submitted data by the due date.

Data collected

We consider the survey response rate to be very high, providing us with a sound base for estimating total costs. 35 of 43 RFAs, ERFDs and TAs returned data (81 percent by number) and 15 of 19 major forestry companies contacted returned data (79 percent). Appendix 2 provides a table of entities who responded to the data survey and a latter section of the report discusses how cost was estimated to fill gaps identified in the data collection.

The majority of District Councils maintain specific cost centres/business units for rural fire activities, which alleviated our initial concerns that it may be difficult for Councils to isolate their costs related to rural fire.

Direct operating costs were collected for the last three complete financial years (2013/14, 2014/15 and 2015/16)⁵. In addition, fire suppression costs were requested for a further seven years to take account of the wide variability in these costs from one year to the next. In-kind costs and the allocation of cost across the four “R”s was collected for the most recent financial year (2015/16). Table 1, below, sets out the categories of cost that were collected from RFAs, ERFDs and forestry companies. Appendix 3 replicates the templates sent to each entity to collect the raw cost data for analysis.

Forestry companies operating nationwide were asked to submit separate returns for each region, to enable analysis of overall costs by area.

⁵ Although the project Terms of Reference indicated data should be gathered for the last five years, the Reference Group decided the last three years would be sufficient for the purposes of this project.



Table 1: Types of cost collected

Operating costs	<ul style="list-style-type: none"> • personnel costs • training costs • weather station costs • building operating costs (e.g. rates, rent, repairs and maintenance) • equipment and vehicle operating costs (including repairs and maintenance, running costs, non-capital purchases, personal protective equipment, other clothing and cleaning costs, and a portion of non-fire response vehicles where appropriate.) • costs incurred by ERFDs and RFAs for volunteer rural fire forces • publicity and other fire prevention/reduction costs • insurance premiums, split by non-cost recoverable fire suppression policies and all other insurance costs • ICT costs (in a number of instances these were included in overall overhead costs) • depreciation expenses for buildings, vehicles and appliances, and other assets • fire suppression costs, as follows: <ul style="list-style-type: none"> – for RFAs and ERFDs, this was split into total fire suppression cost, cost recovered from the Rural Fire Fighting Fund and other cost recoveries directly relating to fire suppression. – for forestry companies this was split into cost recovered from individual perpetrators or insurers, and cost recovered from RFAs or ERFDs. • administration and overhead costs • other operating costs. <p>Forestry companies were also asked to include costs associated with fire-break maintenance, ponds, dams, security and radio communications costs (attributable to fire protection), and costs associated with standby arrangements, which are determined by “Build-up Indices” (BUI).</p>
Capital costs	<ul style="list-style-type: none"> • land and buildings • vehicles • other minor assets. <p>In addition, an estimate of planned capital expenditure over the next three years was collected for assets with a cost in excess of \$20,000 each.</p>
External income	<ul style="list-style-type: none"> • grants from external parties • monetary donations • donated assets • other external income.
4 “R”s	<p>Respondents were asked to allocate cost across the four “Rs” – reduction, readiness, response and recovery for the following cost categories: personnel, training, volunteer rural fire force costs and in-kind contributions. Percentages for all other cost categories were derived by the project team.</p>
In-kind	<p>Data for three main types of in-kind services was collected: personnel providing in-kind services (e.g. permitting, call taking); land and buildings; and vehicles. Respondents were asked if these had changed significantly over the previous three years. Forestry companies were assumed to not have any in-kind costs.</p>



NRFA costs

The NRFA provided actual expenditure, by detailed cost type for the 2014/15 and 2015/16 financial years, and budgeted expenditure for 2016/17.

For the purposes of the analysis, NRFA costs were aggregated into the following categories: personnel; training; buildings, vehicles and equipment; administration and overhead; publicity and other prevention; travel; research and development; professional services; and other costs.

Data validation

The data analysis phase of the project included a number of validation steps in order to identify any returns that looked suspicious or needed explanation. Findings in the interim report were also tested externally with experts from NZFS and DIA.

Internal validation checks

The validation steps in the data analysis phase of the project included:

- a comparison of year-on-year costs within cost categories and across organisations
- a comparison of the proportions of each cost category across organisations of the same type
- a comparison of costs across organisations, after accounting for regional characteristics of population, area and number of volunteer firefighters
- where possible, levies paid to ERFDs were identified and excluded from forestry and RFA returns to avoid double-counting
- where possible, material fire suppression cost transfers (cost recoveries) between forestry companies and ERFDs were identified and adjusted so as to avoid double-counting.

In instances where suspected anomalies, outliers or other questions were identified in the returned templates, the respondent was contacted by phone. Most often, there was justification for the anomaly in the data and no change was made to the information provided in the returned data.

In limited instances (less than 5% of returns) an error was picked up in the returned data and the issue was rectified.

External validation

The interim report was discussed at a technical practitioner-to-practitioner meeting attended by the National Rural Fire Officer, rural fire experts and personnel from the FENZ Transition Project and levy setting and budget development processes.⁶ The purpose of the meeting was to test the analysis and develop a shared understanding of the findings.

⁶ Attendees were: Joanna Collinge (FENZ), Fraser Fyfe (FENZ), Kevin O'Connor (NRFA), Barry Schuurmans (NZFS), Sarah Polaschek (NZFS), Graham Paterson (NZFS), Darren Stafford (NZFS), Toby Ganley (DIA), Jodie Cayford (DIA), Nick Hunn (MJ), Nick Carlaw (MJ) and Tim Borren (MJ).



Following the practitioner-to-practitioner meeting, the Reference Group confirmed the headline cost figure presented in the interim report.

Treatment of costs

Development of a 2016 normalised cost

The analysis we present in this report is based on actual financial data for the three years ended 30 June 2014, 2015 and 2016. In considering levy setting and budgets for the 2016/17 years, the 2016 year provides the most relevant data, particularly because the formation and maturing of ERFDs has progressed significantly between 2014 and 2016.

However, looking at a single year can produce an inaccurate picture of future costs, primarily because of the annual fluctuation in fire suppression costs. To provide FENZ with the most useful guide for levy and budget setting, we have calculated a “2016 normalised” cost.

The process for this calculation was to:

- **take the actual costs for the year ended 30 June 2016**
- **deduct the insurance premiums for fire suppression insurance.** The raw costs received from the respondents include insurance premiums related to fire suppression. Although this is currently an actual cost, we understand that this will not be relevant post 1 July 2017 and we have therefore removed the cost of fire suppression insurance in the 2016 normalised results.
- **replace the actual 2016 fire suppression costs with the average annual fire suppression cost,** calculated over the last 10 years.

We have not provided a normalised capital cost for 2016 as FENZ will need to develop its own asset management strategy as part of its future planning processes. However, to provide background to inform such a strategy, we have collected historical capital costs for 2014 to 2016 and planned capital costs for 2017 to 2019.

Fire suppression costs

Normalising suppression costs

As noted above, fire suppression costs vary considerably from year to year and from region to region.

To provide a 2016 normalised result we have removed individual entity fire suppression costs and replaced these with an average annual suppression cost, using data collected from claims made on the Rural Fire Fighting Fund (RFFF)⁷. This methodology was agreed by rural fire subject matter experts and uses actual cost data provided by NZFS. Table 2 describes the approach as it is applied to RFAs/ERFDs and forestry entities.

⁷ Our approach intended to normalise suppression costs by using survey data collected from the RFAs and ERFDs. However, there were gaps in the long-term suppression cost data returned in the templates and the NRFA-held RFFF data was considered to be more complete and accurate.



Table 2: Calculating normalised suppression cost

RFA/ERFDs	<p>The average annual suppression cost over a 10 year period (\$3.0 million) comprised suppression cost for RFAs (\$0.8 million) and ERFDs (\$2.2 million) and was calculated as follows:</p> <ul style="list-style-type: none">• 10 years of RFFF cost (\$32.2 million) was grouped according to RFAs (\$10.7 million) and ERFDs (\$21.5 million) based on location of the incident.• The suppression cost was increased to account for the RFFF policy excess, 5% per claim and \$1,000 per fire (RFA and ERFD cost increased \$0.8 million and \$1.4 million respectively).• The total DoC-related suppression cost was removed (\$11.3 million) from the RFFF data. We attempted to isolate only the suppression cost relating to DoC land (leaving suppression cost for the 1 kilometre ring around DoC land), but were unable to do so with the available data. Advice from rural fire SMEs was to therefore remove the total DoC-related amount from the suppression cost calculation. <p>65% of the total DoC-related suppression cost was deducted from ERFDs based on the percentage of total rural land serviced by ERFDs. This reduced RFA and ERFD suppression cost by \$4.1 million and \$7.7 million respectively.</p> <ul style="list-style-type: none">• Suppression cost recoveries from all sources other than the RFFF was added to the cost calculation, based on survey response data. This increased RFA and ERFD suppression cost by \$0.5 million and \$6.7 million respectively.
Forestry	<p>The average annual suppression cost over a 10 year period (\$2.1 million) was calculated as follows:</p> <ul style="list-style-type: none">• Exotic forest suppression costs (\$14.8 million, excluding DoC contributions) were compiled for 15 major incidents over 10 year period, covering 70% of the total area burnt.• The average suppression cost per hectare burnt was calculated for the 15 incidents (\$14.8 million suppression cost divided by 5,074 hectares burnt = \$2,921 per hectare).• The total suppression cost over a ten year period (\$21.5 million) was estimated by multiplying the average suppression cost per hectare burnt (\$2,921) by the total hectares burnt 2007–2016 (7,369 Ha).

Elimination of double-counting of suppression costs

Analysis of suppression costs was further complicated by the way in which individual entities recorded these costs, giving rise to a risk of double counting when compiling the costing templates.

The specific issue occurred when a forestry company incurred suppression cost but later recovered some or all of that cost from an RFA/ERFD. In a number of these instances, the same suppression cost was recorded in both the RFA/ERFD return and the forestry return. To avoid double counting, we calculated total cost using the net suppression cost in forestry returns and the gross suppression cost in RFA/ERFD returns.

One negative impact of this approach is that it slightly skews the assignment of cost between forestry and RFAs/ERFDs, with a proportion of the forestry suppression cost reported in the RFAs/ERFDs. However, given that the overall forestry suppression cost is relatively small (approximately 1.5% of our total rural fire cost estimate), this issue does not materially affect the breakdown of costs in our analysis.

In-kind costs

Data for three main types of in-kind costs has been collected. This comprises personnel providing in-kind services (e.g. fire permitting, call taking), land and buildings-related costs, and vehicle costs.



The data received from RFAs and ERFDs provided information on the type and volume of each of these in-kind services. A unit-cost was then applied to these volumes to ensure a consistent costing approach across the country, as follows:

Personnel: Based on the type of role provided in-kind, an hourly cost was calculated which comprised average annual salary for that role, other personnel costs (3.5 percent of salary) and overhead cost (30 percent of salary). Total in-kind personnel costs were estimated by applying the hourly rate to the annual hours worked in-kind, as identified by RFAs and ERFDs.

Vehicles: In general, there are two instances in which vehicles are provided in-kind:

- 1 The vehicle is operated by the RFA/ERFD but owned by another party. For these vehicles the RFA/ERFD pays the operating costs, but the depreciation of the asset is effectively provided in-kind. (For example, a number of Marlborough Kaikōura RFA's fire appliances are owned by Marlborough District Council, so the depreciation for these vehicles is borne by the Council rather than MKRFA).
- 2 The vehicle is owned and operated by another party, but some share of its use is for rural fire purposes. In this case, both running costs (including maintenance) and depreciation were included as in-kind contributions, pro-rated based on the proportion the vehicle is used for rural fire.

For passenger vehicles, running costs and depreciation were sourced from NZ Automobile Association (AA). Multipliers, based on size, were applied to estimate depreciation of fire appliances.

Buildings: As with vehicles, in general there are two instances in which a building is provided in-kind:

- 1 The building is owned by another party but maintained by the RFA/ERFD. In this case only depreciation is deemed to be provided in-kind.
- 2 The building is owned and maintained by another party. In this case the in-kind contribution includes maintenance and depreciation.

However, if a building is owned by a District Council which operates as an RFA, we have deemed that payment for the use of the building is included in the RFA business unit's Council overhead charge, so it is not separately included as an in-kind contribution.

To estimate the cost of in-kind buildings, a generic building value of \$1,500 per square metre was applied. Annual maintenance and depreciation were assumed to be 10 percent and 2.5 percent of building value, respectively. These numbers are indicative only and were based on industry examples derived in late 2016.

Depreciation and capital expenditure

Our analysis presents total operating costs, including depreciation expense, and we show capital expenditure costs separately. These numbers should not be combined for reporting purposes unless depreciation is removed from the operating cost total.



NRFA operating cost

Rural fire grant assistance and RFD administration grants were excluded from NRFA costs as this expenditure has already been accounted for in the RFA and ERFD returns.

Filling of information gaps

As noted above, we considered the overall survey response rate to be very high, with only a small number of relatively small entities not responding. To fill these data gaps, we estimated costs using methodologies developed and tested with subject matter experts in the Reference Group. The approaches, which vary according to the nature of the cost gap, are described below.

RFAs and ERFDs

The response rate for RFAs and ERFDs (81 percent by number) represented approximately 94% of total operating costs. For the organisations that didn't respond, we developed indicative costs for each entity, based on:

- identifying other entities that have returned data that are of a similar size and have similar operating characteristics, and applying those costs
- applying notional costs for a number of very small entities, based on costs obtained from an earlier cost collection exercise.⁸

Table 3 sets out our approach to estimate the gaps for individual RFAs and ERFDs.

Table 3: Filling gaps for RFAs

Entity	Approach to estimate cost
RFAs	
Horowhenua DC	Similar land size and population to Manawātū DC, same cost data used.
Hurunui DC	Similar land size and population to Rangitikei, Ruapehu, Tararua District Councils. Hurunui's costs were based on average cost category of the three entities' returned data.
Otorohanga DC	Data sourced from draft business case to establish Waikato Valley and Thames Valley ERFD (average 2012/13 and budget 2013/14).
Wairoa DC	Similar land size and population to Waitomo and Otorohanga District Councils. Data sourced from draft business case to establish Waikato Valley and Thames Valley ERFD (average 2012/13 and budget 2013/14).
Waitomo DC	Data sourced from draft business case to establish Waikato Valley and Thames Valley ERFD (average 2012/13 and budget 2013/14).

⁸ MartinJenkins: Draft business case for Waikato Valley and Thames Valley Enlarged Rural Fire District, 15 October 2015.



Entity	Approach to estimate cost
ERFDs	
Pumicelands	<p>Data from three TLAs within Pumicelands was missing:</p> <ul style="list-style-type: none"> • Rotorua Lakes DC has similar land size and population to Whakatane DC, and costs were assumed to be the same. • Kawerau and Opotiki District Councils had no cost estimated due to small land size and population.

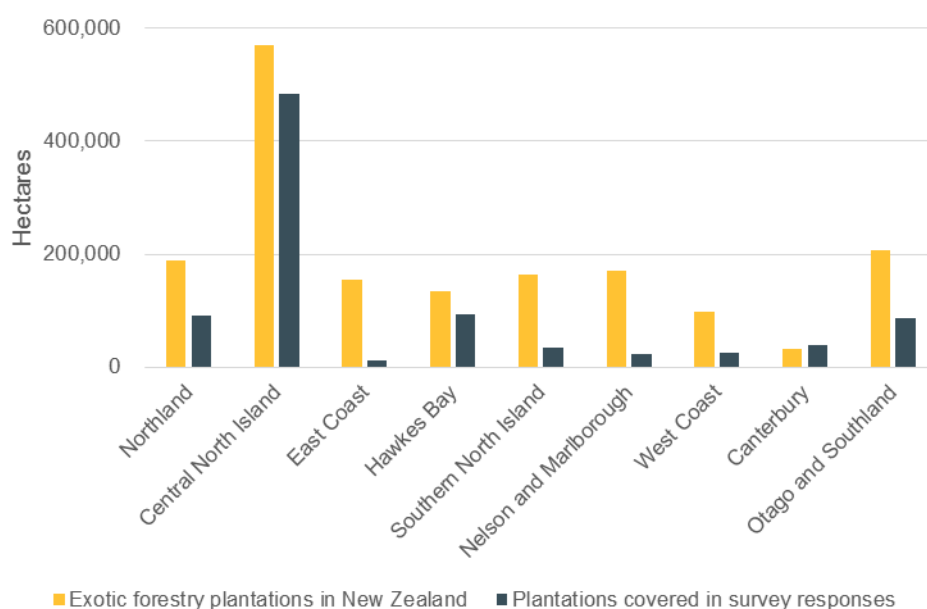
Forestry companies

79 percent of the forestry companies responded to the request for cost information. The returned data provided costs for the majority (over 90 percent) of all forestry blocks greater than 1,000 hectares.

Ministry for Primary Industries records a total of 1.7 million hectares of exotic forests nationwide and publishes the size and location of exotic plantations in New Zealand.⁹ The survey responses from forestry companies was mapped to the MPI data to identify the gaps in cost information.

Figure 5 shows the proportion of total exotic forestry plantations covered by the survey responses. The central North Island contains the most plantations (by land area) and a significant amount of data was captured for this region (over 80% by area). The biggest gaps in survey responses occurred in the East Coast, Southern North Island and Nelson and Marlborough.

Figure 5: Forestry plantations covered in survey data



⁹ Ministry for Primary Industries: National exotic forest description as at 1 April 2015.



The approach to filling the gaps in forestry data was agreed with subject matter experts in the Reference Group and a Registered Forestry Consultant. Table 4 summarises the approach used, which varies according to the size of the forestry block that the cost was being estimated for.

Table 4: Filling forestry gaps

Forestry block size (Ha)	Approach to fill gaps
0–499	<p>Nil cost assumed based on advice from Reference Group due to a relatively low level of rural fire cost currently incurred in the small forestry blocks, and the expectation that these forestry owners would continue to meet any rural fire costs in the future.</p> <p>These small forestry blocks account for approximately 30% of total exotic forests.</p>
500–9,999	<p>Forestry blocks in the range of 500-9,999 hectares account for 20% of New Zealand's exotic forests. Data was captured for 11% of exotic forests in this size range. Data gaps existed across all regions in New Zealand.</p> <p>The value of the cost gap was estimated using an average dollar per hectare rate based on survey response data and multiplied by the plantation area missing from the responses. The calculation to estimate the gap is shown below, by financial year:</p> <ul style="list-style-type: none"> • 2014: \$4.69 p/Ha • 2015: \$4.08 p/Ha • 2016: \$5.23 p/Ha <p style="margin-left: 400px;">X 296,777 Ha not covered in survey responses</p> <p>The 2016 normalised rate was calculated slightly differently with actual fire suppression costs and insurance suppression costs excluded, resulting in a lower rate (a separate calculation added back normalised suppression costs over a 10 year period).</p> <ul style="list-style-type: none"> • 2016 normalised: \$3.56 p/Ha X 296,777 Ha not covered in survey responses.
10,000 >	<p>Forestry blocks larger than 10,000 hectares account for 53% of New Zealand's exotic forests, with cost data captured for 94% of exotic forests in this size range. The MPI data identified that the data gaps existed in three regions: East Coast (55,961 Ha not covered in survey responses), Southern North Island (13,266 Ha not covered in survey responses) and Nelson and Marlborough (59,291 Ha not covered in survey responses).</p> <p>The gap was estimated using an average dollar per hectare rate based on survey response data for forestry companies in the three regions. This rate was multiplied by the size of the "missing" plantation area for each particular region.</p> <p>The calculation to estimate the gap is summarised below for each of the financial years:</p> <ul style="list-style-type: none"> • 2014: Regional rates varied from \$3.29–\$14.09 p/Ha • 2015: Regional rates varied from \$3.29–\$12.39 p/Ha • 2016: Regional rates varied from \$3.29–\$51.09¹⁰ p/Ha <p style="margin-left: 400px;">Multiplied by the forest area (Ha) in each region not covered in survey responses</p> <p>The 2016 normalised rate excluded actual fire suppression costs and insurance suppression costs (normalised suppression costs were added back later).</p> <ul style="list-style-type: none"> • 2016 normalised: Regional rates varying from \$3.07–\$16.04 p/Ha multiplied by the forest area (Ha) in each region not covered in survey responses.

¹⁰ The maximum rate was attributable to a forestry company in the Southern North Island that incurred higher than average standby costs and suppression costs. We contacted the forestry company as part of the data validation phase to confirm accuracy of the numbers provided.



4 “R”s

Respondents were asked to allocate personnel, training, volunteer rural fire force costs and in-kind contributions across the 4 “R”s – reduction, readiness, response and recovery. This allocation was requested for the latest financial year only.

Overall, respondents found some difficulty in responding to this data request and the information that was provided varied considerably across the PRFOs’ estimates. However, we compared the current survey data that was received with that provided by ERFDs in 2015¹¹, and found that the average percentage allocations across the 4 “R”s was relatively consistent. We also compared survey returns across RFAs and ERFDs and similarly found some consistency in the average returns.

On this basis, we concluded that the survey responses that were received provided a fair representation of the overall mix of the 4 “R”s.

Other matters

Capital

We have not extrapolated capital costs across those entities that did not return the data templates because the variability of capital spend does not easily allow such an exercise. This means that there will be a measure of under-reporting of capital in the total cost presented in this report.

To get a sense of how much that might be, for overall operating costs we received returns for approximately 94% of total costs. With that in mind, an increase of approximately 5% to 10% on the reported capital spend could be justified.

In-kind

In-kind operating costs were collected for the latest financial year. In order to make sure respondents identified all relevant in-kind costs, the reporting templates set out examples of the type of in-kind costs we would expect to see, and the importance of recording in-kind costs was heavily reinforced in the respondent meetings and phone calls. While some risk will always remain around collecting partially hidden or dispersed costs, our view is that this data collection exercise will have identified almost all of the material in-kind costs.

The in-kind costs have not been extrapolated for those entities that did not return the data templates, for the same reasons that applied to the capital costs. The amount of unreported in-kind costs is not expected to be material.

¹¹ MartinJenkins draft report: Picture of ERFD investment, 8 May 2015.



Data risk assessment

As with any complex costing exercise, there are potential risks regarding the accuracy of the data collected. We have identified the main risks in Table 5 accompanied by our assessment of likelihood, level of impact and steps taken to mitigate the risk.

Table 5: Data risk assessment and mitigation

Risk	Likelihood	Impact	Mitigation
Duplication of cost (eg levies paid by forestry companies to ERFDs and/or fire suppression cost).	Medium	Low-medium	Issue highlighted during site visits and conversations with respondents early in the data collection process. Return data analysed to identify and exclude all levies and internal charges.
The gap in forestry cost data has been over or under estimated	Low-medium	Medium	Subject matter experts (including Registered Forestry Consultant) advised on the methodology to estimate the gap.
Returned data under-estimates in-kind contributions	Medium	Low	Potential issue highlighted during site visits and conversations with respondents early in the data collection process.
Historical and planned capital expenditure may be less than what is required to maintain “status quo”. TA investment has anecdotally fallen due to changing rural fire responsibility (e.g. future ERFD and/or FENZ establishment).	Medium	Low	Risk discussed with Reference Group for consideration in future capital planning and budgeting rounds.
Allocation of 4 “R”s is not accurate.	Medium-high	Low	4 “R”s allocation compared with previous ERFD analysis. Issue discussed with Reference Group and allocations from returned templates assessed as a reasonable indicator.



COST OF SERVICING RURAL FIRE

Operating costs

The total 2016 normalised annual operating cost for ERFDs, RFAs, and forestry was \$35 million. The operating cost for the NRFA was a further \$2.7 million.

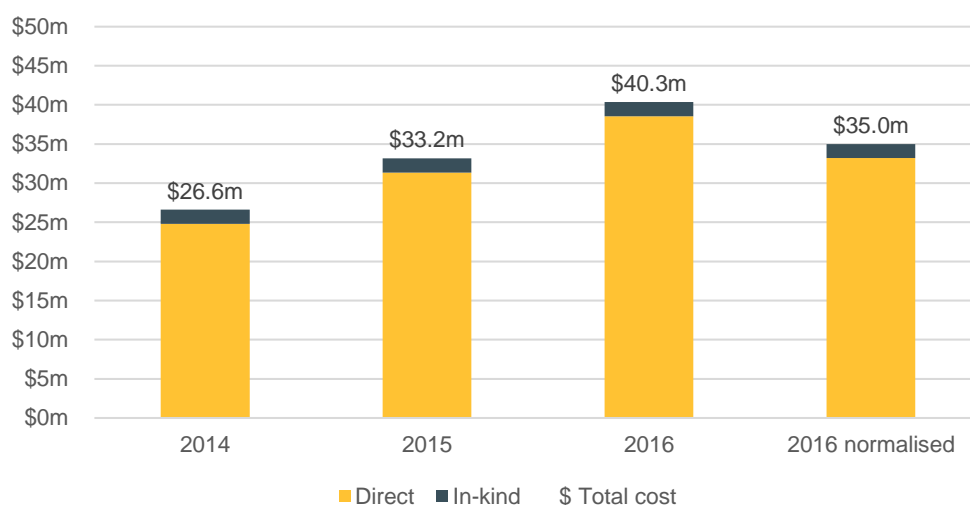
Operating cost for ERFDs, RFAs, and forestry

The normalised cost of \$35 million is based on the 2016 actual operating costs except:

- the 2016 fire suppression cost has been replaced by an average of the last 10 years for RFAs, ERFDs, and forestry companies. This reduces the 2016 fire suppression cost by \$4 million, from \$9.1 million in 2016 to an average of \$5.1 million.
- the 2016 insurance premiums for fire suppression cover of \$0.7 million have been removed, as they will not be a cost that will be incurred by FENZ from 1 July 2017.

These adjustments have been made to provide a more relevant cost figure to feed into the levy setting and budget preparation processes. The previous 3 years actual costs, and 2016 normalised costs are as follows:

Figure 6: Actual operating costs for last 3 financial years - and 2016 normalised costs



Note: in-kind costs were collected for the latest year only – but have been applied to earlier years on the same basis.



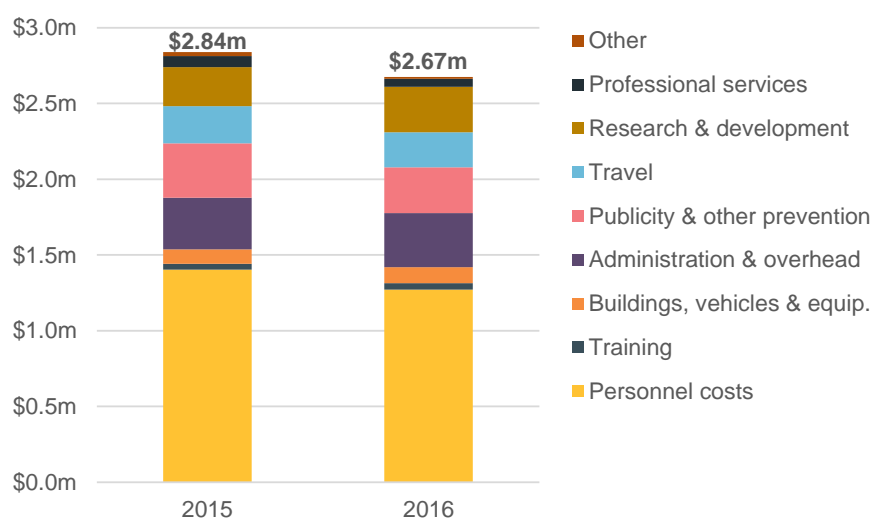
In-kind costs form 5% of total costs. This may appear unusually low, but our defining of costs will have captured a large portion of expenses as direct costs, where these might otherwise have been considered to be in-kind. This is because we have captured most costs within Councils and forestry companies at the source, so they appear in this analysis as direct costs.

Operating costs include cash operating costs and depreciation expense.

NRFA operating cost

Excluding rural fire grant assistance and RFD administration grants, the NRFA spent \$2.84 million in the 2015 financial year and \$2.67 million in the 2016 financial year, as shown in Figure 7.

Figure 7: NRFA operating costs for last two financial years



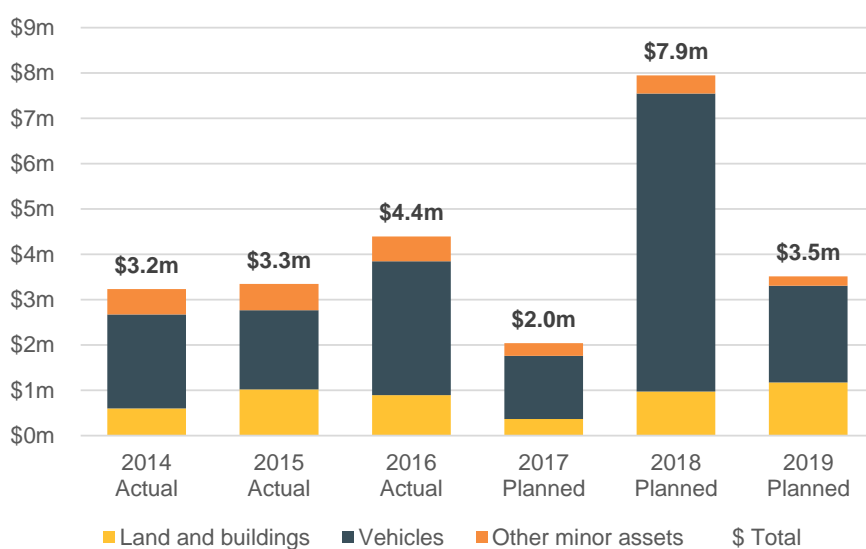
Capital costs

Total capital costs for ERFDs, RFAs and forestry companies in the year to 30 June 2016 was \$4.4 million.

This is comparable to the average capital spend over the six years from 2014 to 2019, \$4.1 million per annum¹². There was no capital cost for the NRFA over this period.

As noted above, we have not extrapolated capital costs across those entities that did not return the data templates, meaning there could be a measure of under-reporting of capital of approximately 5–10 percent.

Figure 8: Actual capital costs for last 3 years and planned capital costs for next 3 years



Capital cost and depreciation

In some organisations, depreciation can be used as a proxy for estimating annual capital expenditure. Our discussions with the Reference Group, together with experience from our prior work in the sector, has highlighted that rural fire organisations are likely to have a high proportion of relatively old (and

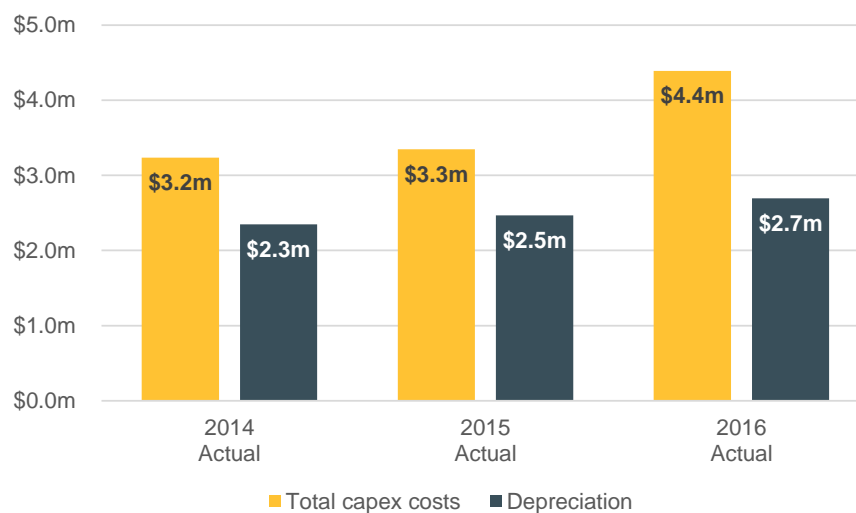
¹² Because depreciation costs are included in operating costs, we have not summed total operating and capital costs. The total cash costs (operating cost, less depreciation, plus capital cost) are: 2014 \$27.5 million; 2015 \$34 million; 2016 \$42 million.



fully depreciated) assets. This means that depreciation expense will probably be lower than expected annual capital expenditure.

A comparison of historical depreciation expense and capital expenditure confirms this has been the case over the last three years:

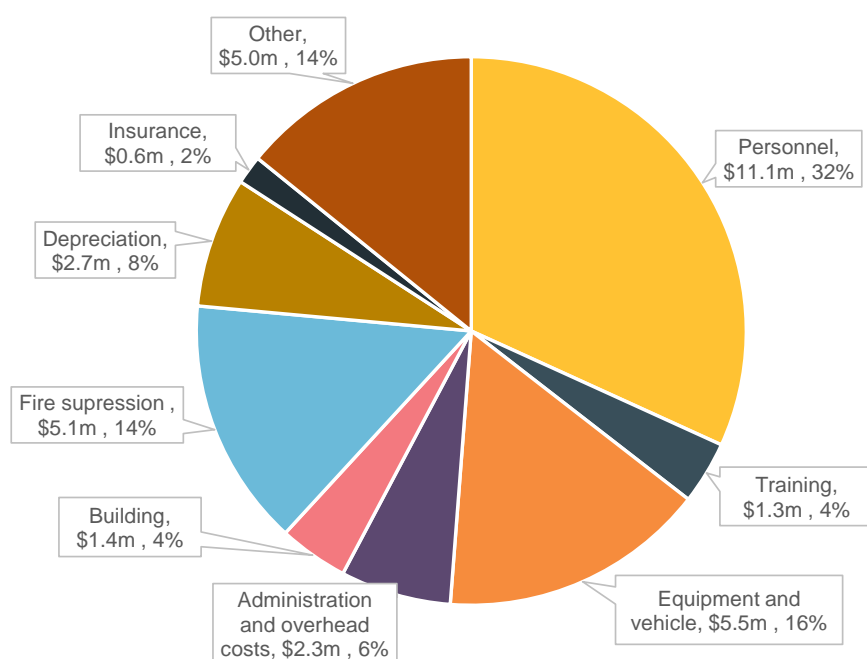
Figure 9: Depreciation compared to capital expenditure



Costs by cost category

All identified costs of servicing rural fire have been included in this analysis, and personnel-related costs of \$11.1 million form the largest portion of costs (32%).

Figure 10: 2016 normalised operating cost by cost category



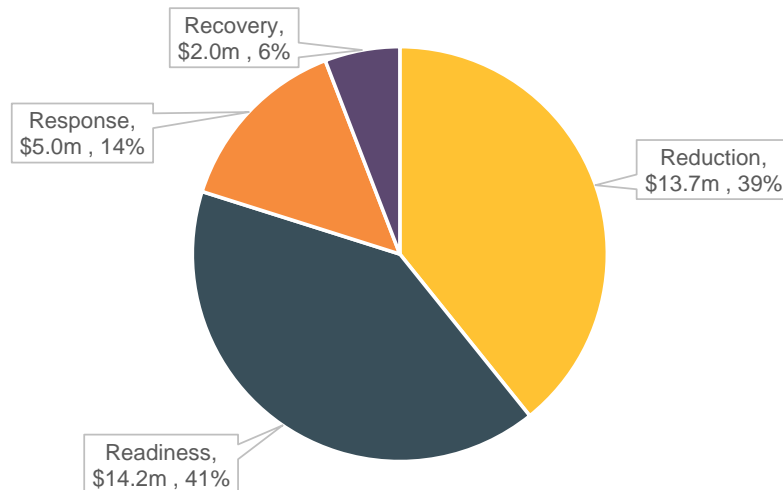
Insurance costs in the 2016 normalised figures exclude \$712,000 of premiums for fire suppression cover.

Costs by the 4 “R”s

Figure 11 summarises cost allocations across the 4 “R”s after extrapolating the data collected by the survey respondents across those who did not respond.

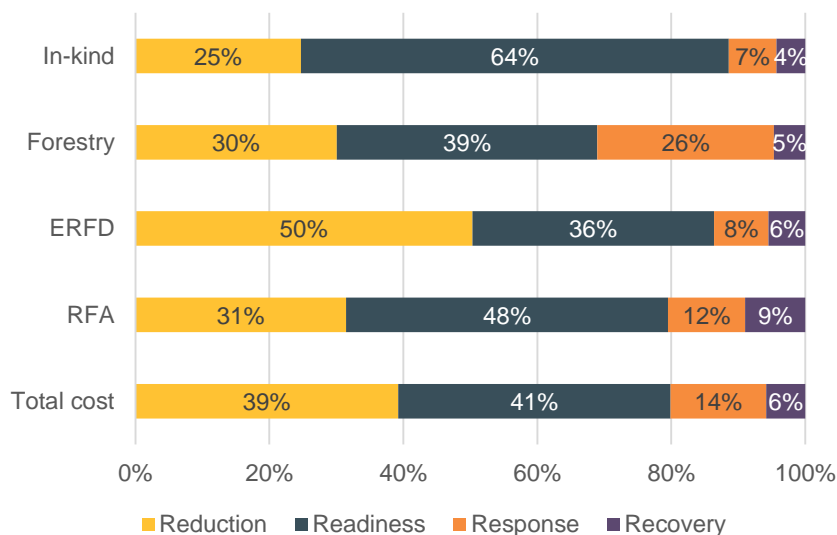


Figure 11: 2016 normalised costs of \$35m shown by the 4 “R”s



The 4 “R”s by type of organisation (and separately for in-kind costs) are shown in Figure 12. In-kind costs have a higher proportion of readiness costs because they include a much higher portion of building costs (which are recorded as readiness) than the forestry, ERFD and RFA categories.

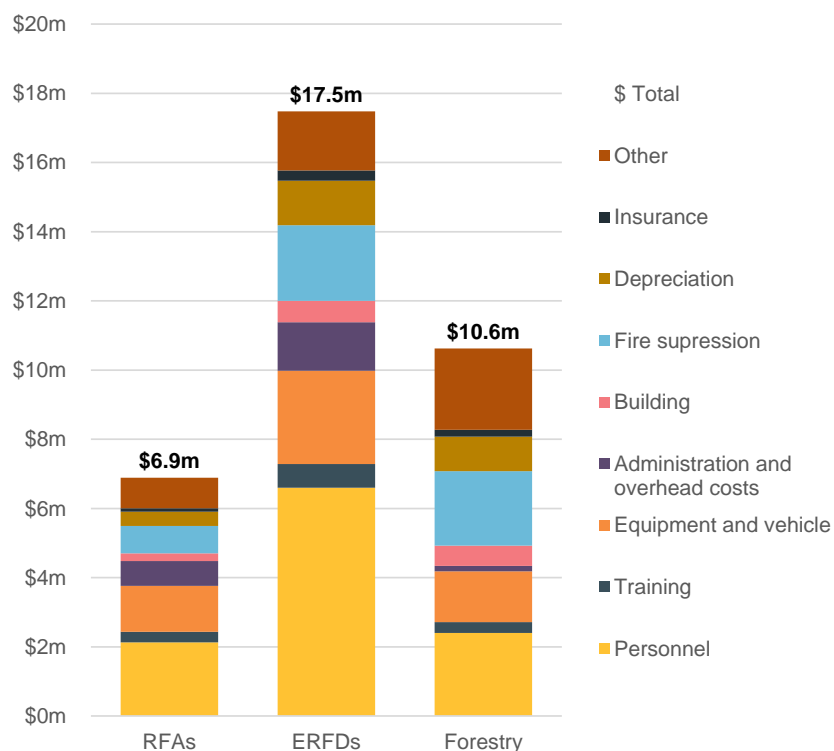
Figure 12: 2016 normalised cost by the 4 “R”s – by organisation type



Costs by organisation type and cost category

Costs have been collated and analysed by organisation type to highlight any differences in the underlying characteristics of each group.

Figure 13: 2016 normalised cost by organisation type – including in-kind

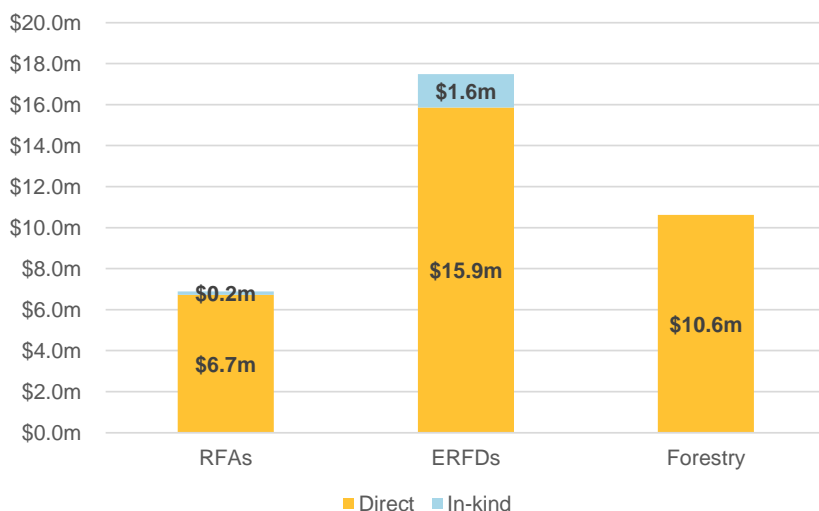


Direct and in-kind costs by organisation

Figure 14 provides a breakdown of direct and in-kind costs. Forestry companies are assumed not to receive any in-kind contributions.

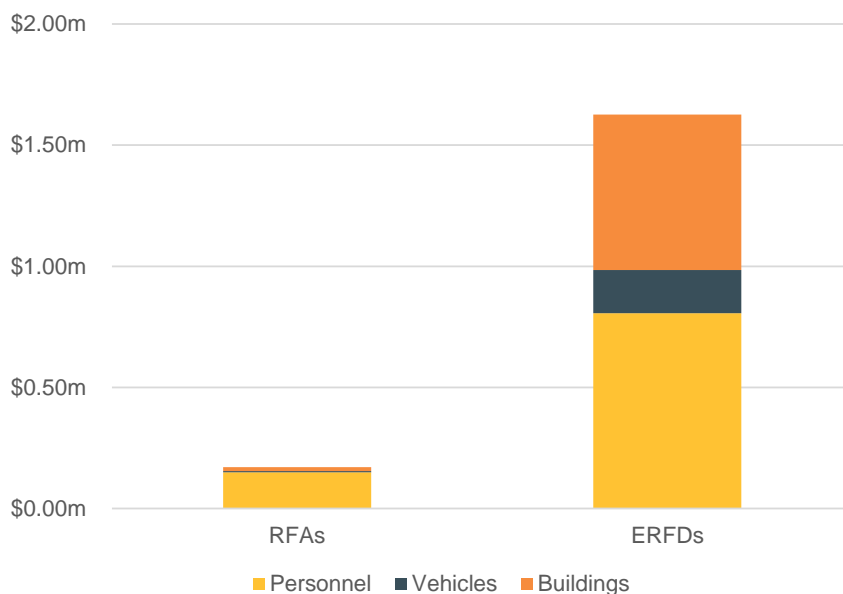


Figure 14: 2016 normalised costs – by organisation type



As illustrated in Figure 15, personnel costs make up about half of ERFD in-kind contributions and almost all of the RFA in-kind contributions.

Figure 15: In-kind cost by category, 2016 normalised

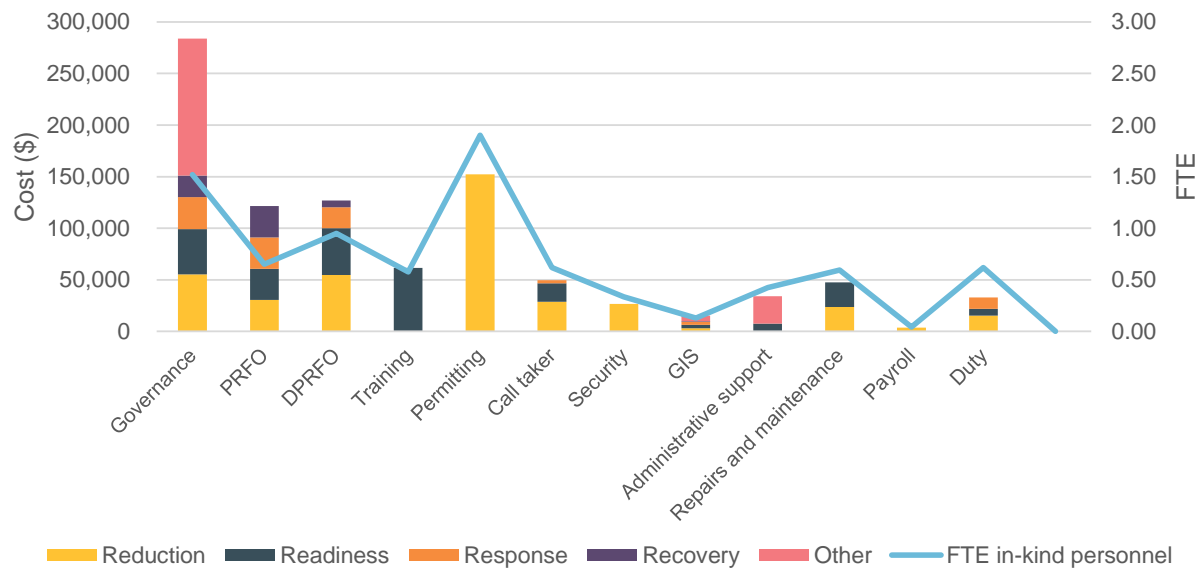


The majority of in-kind personnel are provided to ERFDs in Northern Rural Fire Authority (1.5 FTEs), Pumicelands (1.5 FTEs), West Coast Rural Fire Authority (1 FTE) and Southern Rural Fire Authority (0.8 FTEs). Gisborne District Council is the only RFA to receive services from in-kind personnel (0.9 FTE).



Figure 16 shows the type of roles that are delivered by personnel on an in-kind basis and a breakdown of the activity according to the 4 “R”s.

Figure 16: In-kind personnel cost and FTEs – by 4 “R”s



In total, 52 buildings are provided in-kind to RFAs and ERFDs¹³ – most to ERFDs. Of these, 24 are owned by another party but maintained by the RFA/ERFD, while the remaining 28 are owned and maintained by another party. The greatest recipients of in-kind buildings are Mid-South Canterbury RFA (12 buildings owned by various District Councils¹⁴), Otago RFA (11 buildings owned by various District Councils), Northern RFA (6 buildings owned by Far North DC) and Wairarapa RFA (5 buildings owned by Masterton DC, South Wairarapa DC and Wellington City Council).

27 vehicles are provided in-kind, excluding vehicles provided by DOC and forestry companies as those will be included as direct costs in DOC and forestry company costings. Of these, 20 are fire appliances and 7 are passenger vehicles. 19 fire appliances and 2 passenger vehicles are operated by Marlborough Kaikōura RFA but owned by Marlborough or Kaikōura District Councils.

¹³ Based on information gathered by the FENZ Transition Asset Workstream.
¹⁴ Ashburton DC costs were included directly in MSCRFA’s return so buildings owned by ADC have not been included as in-kind.



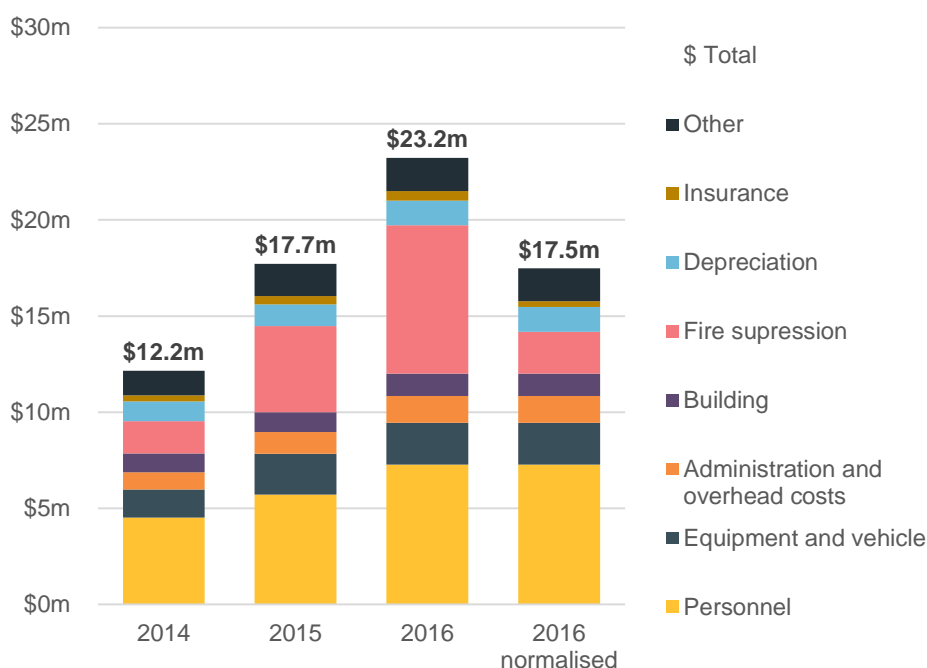
DETAILED COST ANALYSIS

This section provides a more detailed analysis of costs for ERFDs, RFAs and forestry companies. Costs are provided by individual organisation and by cost type for the last three years. All charts include direct and in-kind costs.

ERFD costs

ERFD costs have grown steadily over the last three years, mainly due to growth in personnel costs and increases in fire suppression costs (Figure 17). The growth in personnel costs (and some growth in equipment and vehicle costs) are unsurprising, as ERFDs have increased their capability as the organisations have matured and taken on greater responsibility. After adjusting for fluctuations in fire suppression costs, the 2016 “normalised” cost of ERFDs is \$17.5 million.

Figure 17: Overall ERFD costs – last 3 years and 2016 normalised



All charts include direct and in-kind costs.



Reflecting the overall trend, most ERFD's costs have increased year on year, with the exception of Waimea, West Coast and Thames Valley (Figure 18). The 2016 increases seen for Marlborough/Kaikōura, Wairarapa and Southern are largely due to high fire suppression costs in that year.

Figure 18: Actual costs by ERFD for last 3 years

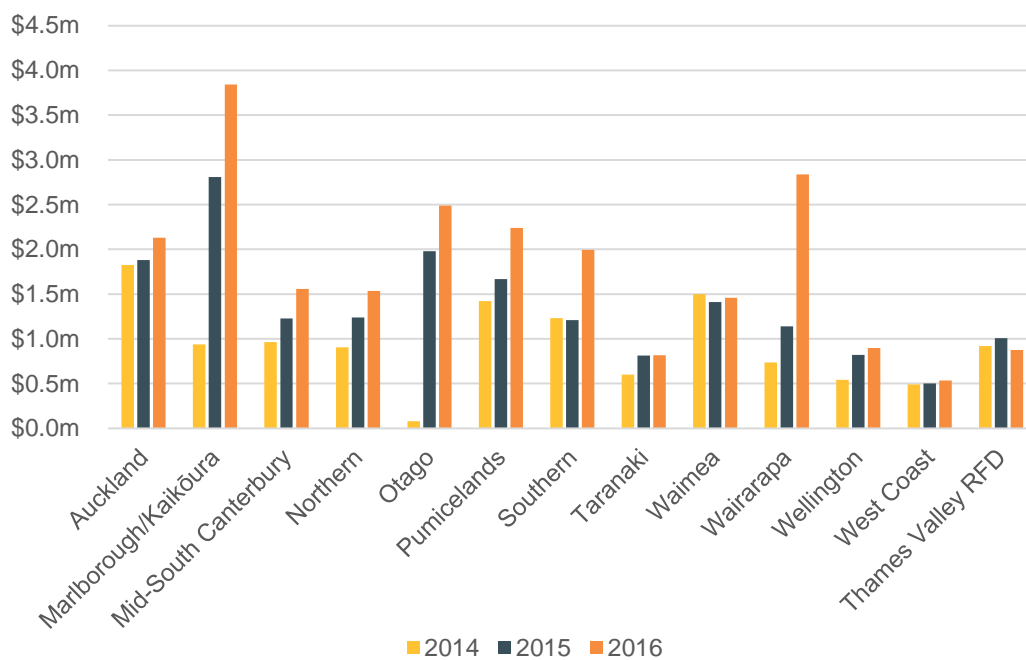
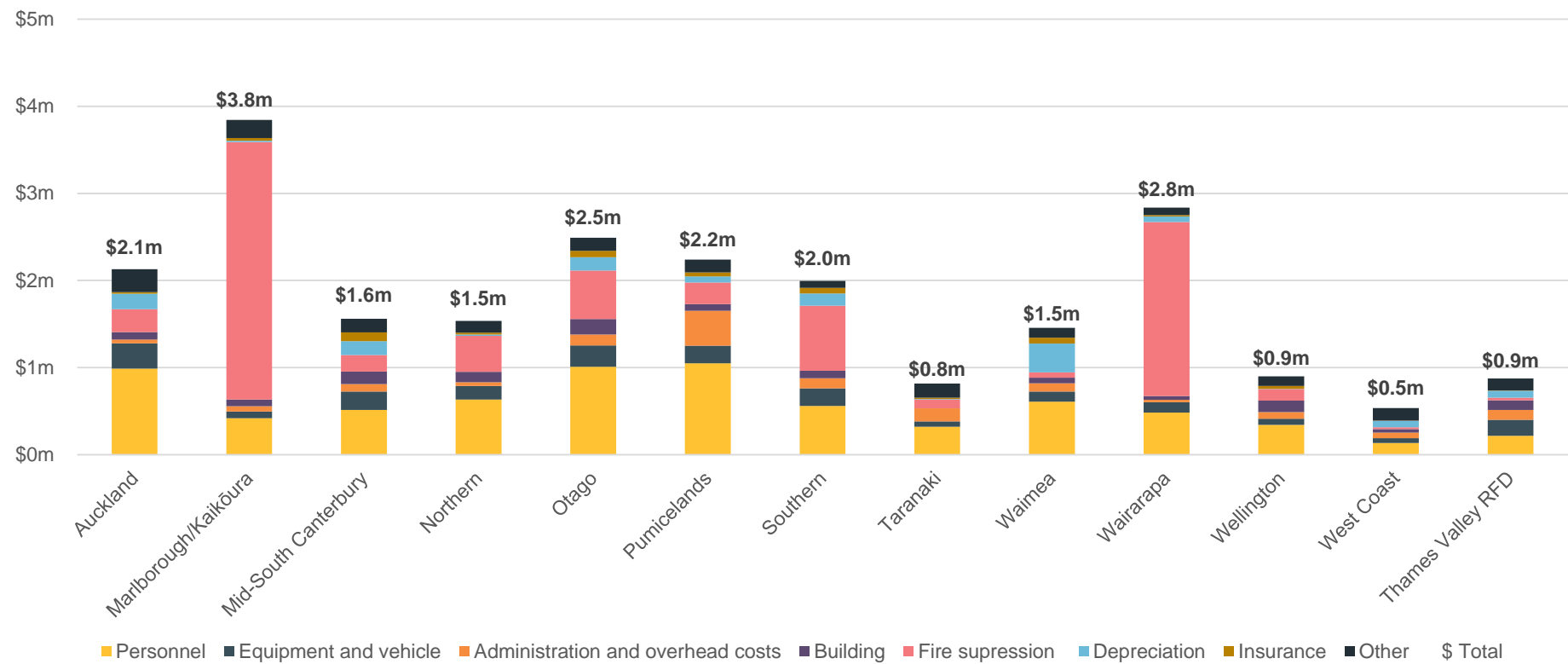


Figure 19 illustrates the large fire suppression costs incurred by Marlborough/Kaikōura, Wairarapa and, to a lesser extent, Southern in the 2016 financial year.

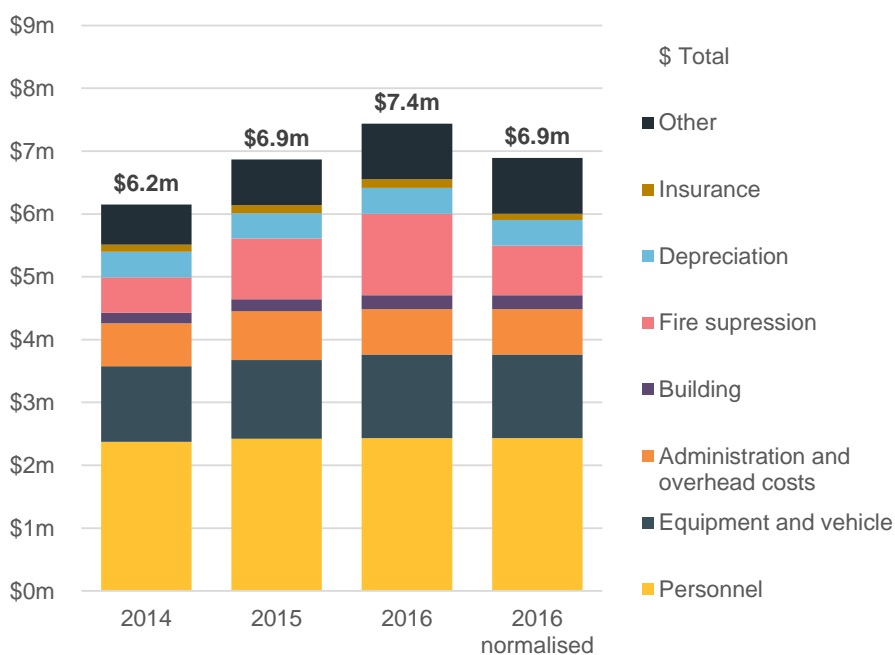
Figure 19: Actual 2016 costs for ERFDs by cost category



RFA costs

RFA costs have increased slightly year-on-year, mainly due to increases in fire suppression costs. After adjusting for fluctuations in fire suppression costs, the 2016 “normalised” cost of RFAs is \$6.9 million.

Figure 20: Overall RFA costs – last 3 years and 2016 normalised



All charts include direct and in-kind costs.



Overall, costs for most RFAs were reasonably constant over the three years. The exceptions were Christchurch City Council, Selwyn DC and Waimakariri DC, which had clear increases (Figure 21). Christchurch CC and Selwyn DC increases were driven almost entirely by fire suppression costs. In the case of Waimakariri DC, personnel costs and vehicle and equipment costs rose \$25k and \$65k respectively, over the 3 years. Fire suppression costs rose from \$14k in 2014 to \$265k in 2016, while 2016 costs also included \$138k for doubtful debts.

Figure 21: Actual costs by RFA for last 3 years

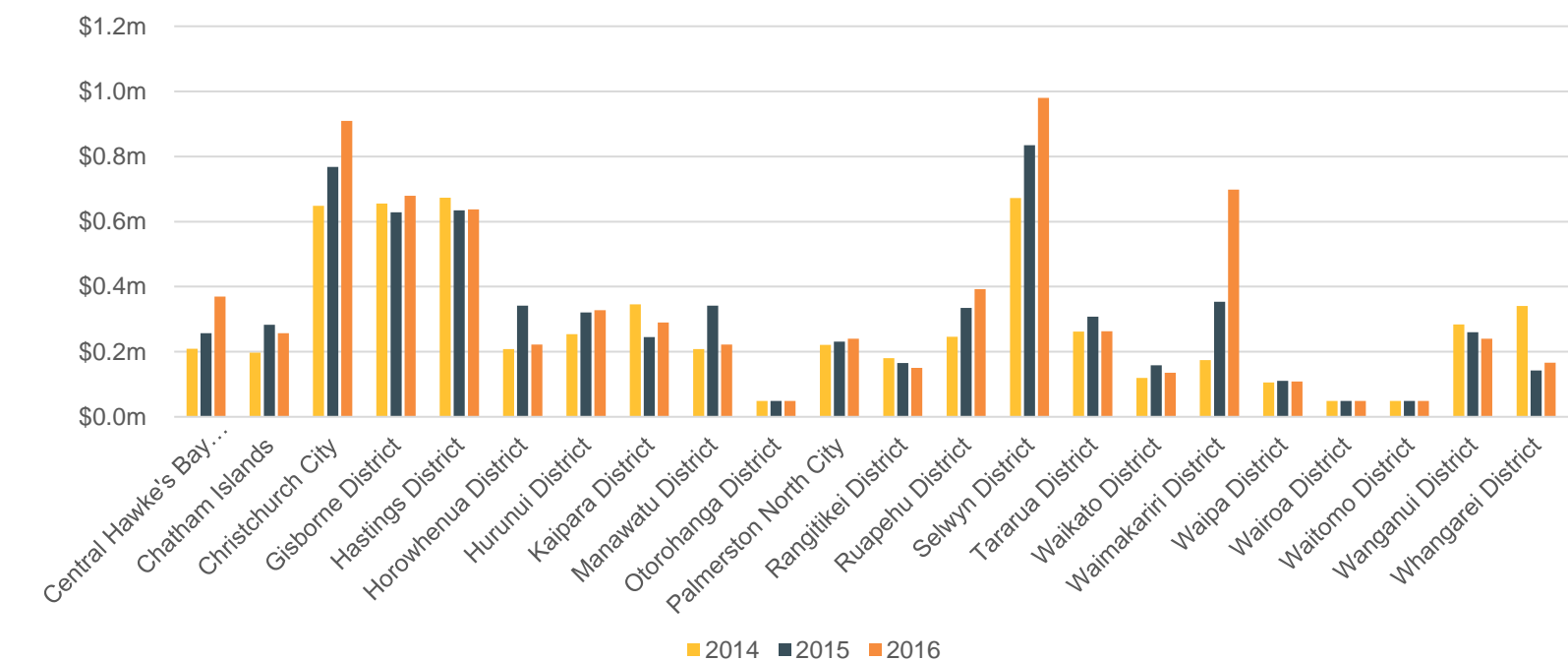
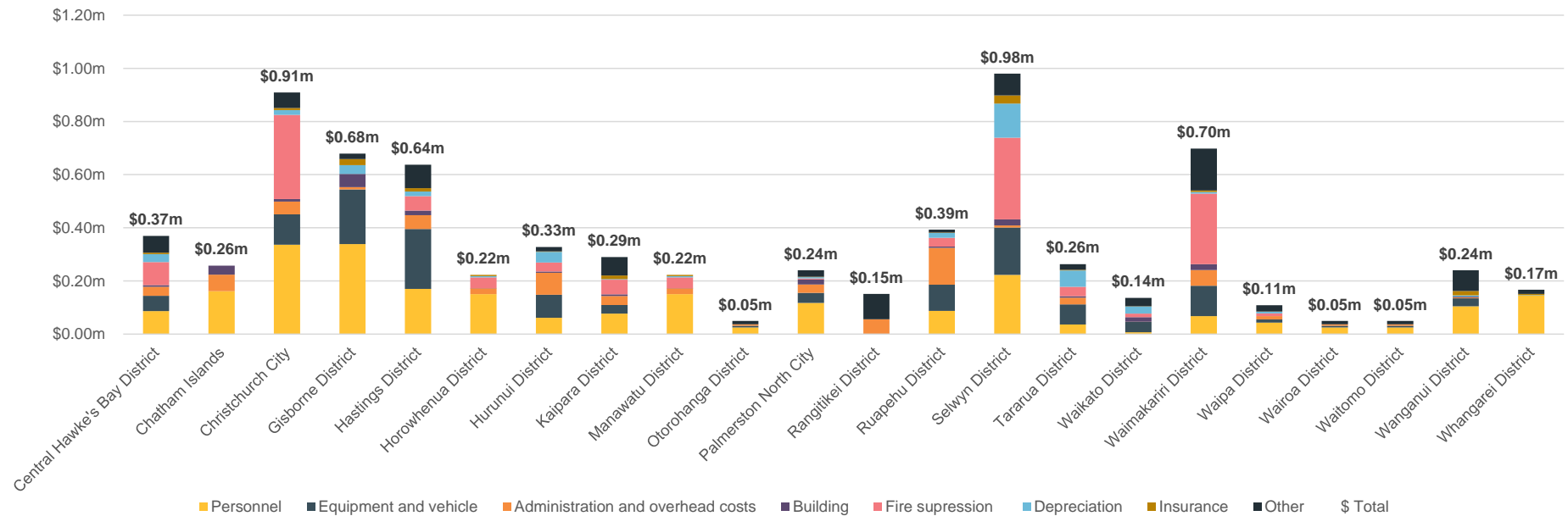


Figure 22 also illustrates the high fire suppression costs incurred by Christchurch CC, Selwyn DC and Waimakariri DC in the 2016 financial year. It should be noted that Horowhenua, Kaipara, Manawātū, Rangitikei and Whangārei District Councils contract rural fire services to a third party. These contract costs are included in personnel costs, except for the case of Rangitikei DC, where they are included in other costs.

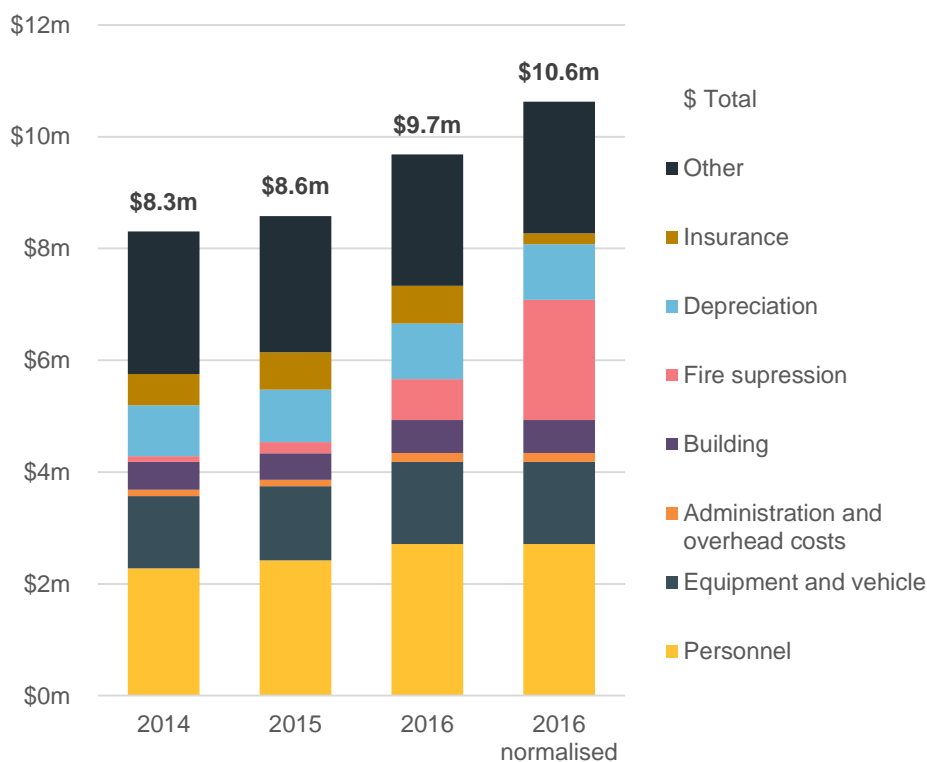
Figure 22: Actual 2016 costs for RFAs by cost category



Forestry costs

Forestry costs increased in the 2016 financial year due to two large fires contributing to higher suppression costs. The 2016 normalised suppression costs take into account data over the previous 10 years and present a higher suppression compared to 2014–2016. After adjusting for fluctuating fire suppression costs, forestry companies spend about \$10.6 million on rural fire-related activities.

Figure 23: Actual 2016 costs for forestry companies by cost category



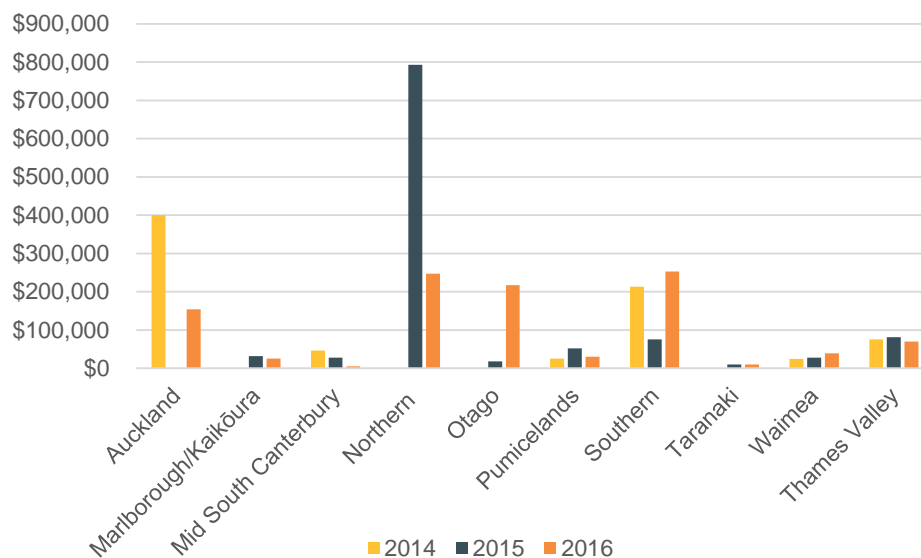
External income

The purpose of gathering information on external income, such as community grants and donations, was to provide NZFS with an idea of current revenue streams that may cease to be available in the future, once FENZ is established. The following graphs summarise reported external income over the last three years.

10 of the 13 ERFDs reported external income.



Figure 24: ERFD external income



ERFDs not shown reported nil.

Table 6 provides a detailed breakdown of external income by ERFD. Over the last two years, annual external income totalled just over \$1 million – a significant share was from asset donations to Northern RFA, and overseas deployment income in Otago and Southern RFAs. Generally, respondents were uncertain as to whether these income streams would continue at the same level in the future.

Table 6: ERFD external income last 3 years

	2014	2015	2016
Auckland			
Cash donations	400,000		
Community grants			154,000
Total	400,000		154,000
Marlborough/Kaikōura			
TEC training reimbursement		31,803	
NZFS training reimbursement			24,850
Total	0	31,803	24,850
Mid South Canterbury			
TEC training reimbursement	46,324	27,223	
Pump donation (Fonterra)			5,000
Total	46,324	27,223	5,000
Northern			
Grants from external parties		45,311	
Donated assets		747,629	247,078
Total	0	792,940	247,078
Otago			
Cash donations			758

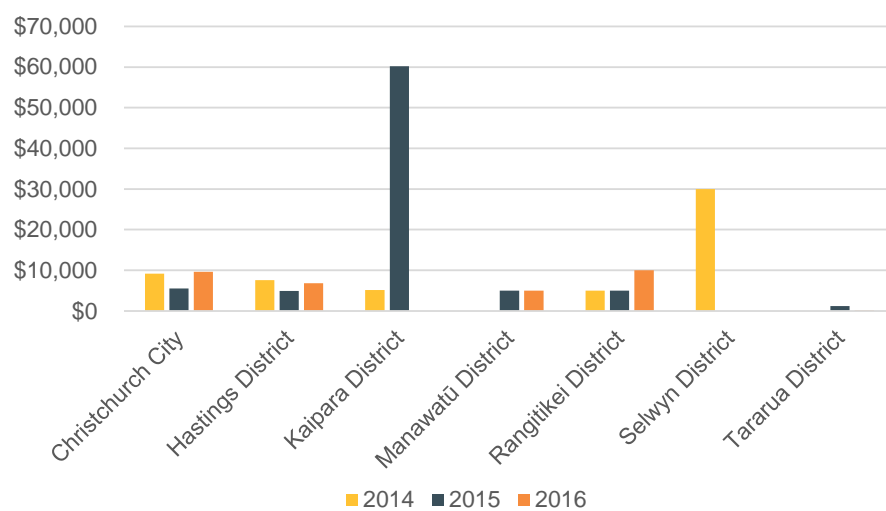


	2014	2015	2016
Overseas deployment			199,900
Outside work (Clyde depot)		17,440	16,716
Total	0	17,440	217,374
Pumicelands			
Grants from external parties	25,000	20,000	29,800
Cash donations		19,000	
Donated assets		13,000	
Total	0	52,000	29,800
Southern			
Grants from external parties	152,000	55,000	46,500
Donated assets			82,000
TEC training reimbursement	18,040	18,733	21,602
Overseas deployment	42,885	1,274	102,649
Total	212,925	75,007	252,751
Taranaki			
Grants from external parties		9,565	
Funding for YES programme (MSD)			10,000
Total	0	9,565	10,000
Waimea			
Grants from external parties	15,531	18,452	30,086
Donated assets	9,000	9,000	9,000
Total	24,531	27,452	39,086
Thames Valley			
Cash donations	54,353	47,916	17,423
Donated assets			15,200
Other	20,559	33,106	37,003
Total	74,912	81,022	69,626
Total	758,692	1,082,649	1,024,715

Figure 25 shows external income for the last three years reported by RFAs. The majority of RFAs did not report any external income. Most of the external income was in the form of cash donations, except for Christchurch City Council, which was training cost reimbursement from the Tertiary Education Commission (TEC), and Hastings DC which includes fundraising.



Figure 25: RFA external income



RFAs not shown reported nil.



APPENDIX 1: DATA COLLECTION MEETING SCHEDULE

In total, 12 meetings were held involving 26 RFAs, ERFDs or TLAs and 14 forestry companies (Table 7). Each meeting was facilitated by a MartinJenkins consultant, accompanied by either Mike Grant (PRFO Southland ERFD) or Rob Goldring (Manager, Rural Fire based in Auckland). Geoff Cameron (Registered Forestry Consultant) also participated in most meetings involving forestry companies.

Table 7: Organisations at face-to-face meetings

RFAs / ERFDs		Forestry organisations
Hastings DC	Horizons Regional Council	Bay Forests RFD
Pumicelands PRFO	Manawatū DC	PanPac
Rotorua Lakes DC	Rangitikei DC	Hancock
South Waikato DC	Palmerston North CC	NZFM
Taupō DC	Tararua DC	PF Olsen
Whakatāne DC	Ruapehu DC	Rayonier
Western BOP DC	Wanganui DC	Tasman Pine
Eastern Bay zone manager	Otago ERFD	Forest Enterprises
Ōpōtiki DC	Christchurch CC	Juken
Waimea ERFD	Waimakariri DC	City Forests
Tasman DC	Gisborne DC	Ernslaw One
Nelson City Council	West Coast ERFD	Northland Forest Managers
Wairarapa ERFD	Northern ERFD	Summit
		Ashley RFD



APPENDIX 2: SUMMARY OF SURVEY RESPONDENTS

The following tables summarise the organisations that provided data and those that were unable to return a template.

Table 8: RFA/TLA and ERFD respondents

	Data returned		Data not returned
TLA RFAs	Central Hawkes Bay DC	Ruapehu DC	Hurunui DC
	Chatham Islands Council	Selwyn DC	Otorohanga DC
	Christchurch CC	Waikato DC	Wairoa DC
	Hastings DC	Waipa DC	Waitomo DC
	Horowhenua DC	Wanganui DC	
	Kaipara DC	Whangarei DC	
	Manawatu DC	Taranaki DC	
	Palmerston North CC	Waimakariri DC	
	Rangitikei DC	Gisborne DC	
Pumicelands	Western Bay DC	South Waikato DC	Kawerau DC
	Whakatāne DC	Taupō DC	Ōpōtiki DC
			Rotorua Lakes DC
ERFDs / RFAs	Marlborough/Kaikoura RFA	Mid-South Canterbury RFA	Eastland RFD (forestry amalgam)
	Otago RFA	Northern RFA	
	Pumicelands RFA	Auckland RFA	
	Southern RFA	Thames Valley RFA	
	Taranaki RFA	Waimea ERFD	
	Wairarapa RFA	West Coast RFA	
	Wellington RFA		
Total	35	8	

Table 9: Forestry company respondents

Data returned	Data not returned
Summit Forest	Roger Dickie
City Forests	Forest Management (NZ) Ltd
Bay Forests RFD	GMO Renewable
Nelson Forests	Hikurangi FF
Wenita	
Timberlands	
Ngāi Tahu Forest Estates	



Data returned	Data not returned
NZFM	
Blakely Pacific	
Mid-South Cant. RFA	
Otago RFA	
Southern RFA	
Rayonier	
Matariki - Northland	
Matariki - BOP	
Matariki - Hawkes Bay	
Matariki - Canterbury	
Forest Enterprises	
Eastland RFD	
Bay Forests RFD	
Wairarapa RFA	
Ernslaw One	
Southern RFA	
Rangitikei RFA	
Tararua RFA	
Ruapehu RFA	
P F Olsen	
Northland	
Pumicelands	
Taranaki	
Wairarapa	
Wellington	
HNRG (Hancock)	
Whangārei	
Eastern Tiki (Pumicelands)	
Tokoroa	
Juken NZ Forest/ JNL	
Wairarapa	
15	4



APPENDIX 3: DATA COLLECTION TEMPLATES

The following Excel data collection template was sent to ERFDs, and a slightly modified version was sent to RFAs. A similar template was sent to forestry companies, but VRFF costs, and the in-kind and external income sections were removed.



OPERATING COSTS INCURRED DIRECTLY BY THE ERFD



The aim of this page is to capture all of the costs incurred directly by the ERFD. The total operating costs captured on this page should reconcile to the total expenditure in your audited accounts.

In-kind costs (such as those provided to the ERFD by another stakeholder at little or no actual cost to the ERFD) will be captured separately on Page 4.

We are seeking your operating costs for the last three financial years with one exception. For fire suppression costs, we need to capture data for the previous 10 years (this is because the suppression costs often fluctuate significantly from year-to-year).

For some of the operating costs, we need to understand how the cost is allocated across the 4 "Rs" (reduction, readiness, response, recovery). In some instances, cost items will only sit under one of the 4 "Rs" (eg costs relating to fire prevention will sit under Reduction). In other instances, you will need to make a judgement about how to allocate the cost across a number of the 4 "Rs" (eg costs relating to salaries and wages will need to be allocated across most, if not all, of the 4 "Rs"). We ask that you make this judgement using your knowledge of the ERFD and we recognise that it will only be based on an estimate of what you think is the most reasonable allocation of cost. Page 7 contains a definition of each of the 4 "Rs".

You only have to enter data in the yellow cells. Cells that are shaded grey contain instructions or information that is pre-populated.

	2013/14	2014/15	2015/16	Reduction	Readiness	Response	Recovery	Other	Total
<i>Input dollar values.</i>				<i>Input values as a % (each row should total 100%). Page 7 defines the 4 "Rs". The "Other" column can be used to capture the proportion of cost relating to management and administration. The other column does not need to be completed if you are happy to allocate all costs/time across the 4 Rs.</i>					
Personnel									0%
Staff wages and salaries									
Other staff-related costs <i>Includes KiwiSaver, superannuation, ACC, FBT, travel, director's fees and other personnel costs. Excludes Firefighters paid on a contract basis for responding to a fire (capture under "Fire Suppression" costs) and training (entered below).</i>									0%
Total Personnel Costs	\$0	\$0	\$0						
Training <i>Includes all training-related costs such as professional development, response training etc</i>									0%
Weather station costs <i>Includes lookouts and other weather-related costs.</i>				49%	49%	2%	0%		100%
Building costs <i>Buildings include fire stations, depots and sheds. You can include office accommodation cost here or in the "Administration and Overhead Costs" section below. Include costs relating to rates, rent, and repairs and maintenance. Insurance costs are captured separately in the "Insurance" section below.</i>					100%				100%
Equipment and vehicle costs <i>Includes all vehicle and equipment repairs and maintenance, vehicle running costs (eg petrol, WoF), non-capital purchases, personnel protective equipment (PPE), other clothing, and cleaning cost. Also include non-fire response vehicles.</i>					100%				100%
VRFF costs <i>Excludes Firefighters paid on a contract basis for responding to a fire (capture under "Fire Suppression" costs).</i>									0%
Publicity and other fire prevention/reduction costs <i>Includes community education, permits, signs, advertising, research and other publicity and prevention cost.</i>				100%					100%



Insurance
Non cost-recoverable fire suppression policy cost <i>This will be used to identify the portion of insurance costs that are likely to change in the future.</i>
All other insurance cost
Total Insurance Cost

\$0	\$0	\$0

ICT costs

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Depreciation
Building depreciation
Vehicles and appliances depreciation
Other depreciation costs
Total Depreciation Cost

\$0	\$0	\$0

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Total fire suppression costs <i>Include suppression costs for earlier years if readily available. Exclude salary and wage costs that are already included in the personnel cost section above.</i>
Less cost recovered from Rural Fire Fighting Fund
Less other cost recoveries directly relating to fire suppression
Total Fire Suppression Costs Net of Recoveries

2013/14	2014/15	2015/16
\$0	\$0	\$0

2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
\$0	\$0	\$0	\$0	\$0	\$0	\$0

Administration and overhead costs <i>Includes legal, audit, payroll, accounts, telephone, printing, stationery and other overhead costs.</i>
--

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Other costs <i>Please list each cost. For example, you might want to split out very large or "one-off" admin or overhead costs.</i>
eg. Cost 1
Total other costs

	eg. \$900	
\$0	\$0	\$0

Total Operating Costs (this will be net of any fire suppression cost recoveries)
--

\$0	\$0	\$0
-----	-----	-----

Additional comments:

Use this box if you need to provide extra comments to any of the data provided on this page.





"IN-KIND" SERVICES PROVIDED TO THE ERFD (people, office accommodation and assets)

The aim of this page is to capture all services provided to the ERFD, at little or no actual cost to the ERFD. We refer to the provision of these services as being "in-kind".

We need to identify "in-kind" contributions for the following services that are provided to the ERFD:

- services provided by personnel free of charge (eg a council providing fire permit services on behalf of the ERFD and not charging the ERFD for the permit officer's time)
- office accommodation that the ERFD is able to use free of charge (eg a council may provide a DPRFO with a site office and not charge the ERFD any rent)
- vehicles provided to the ERFD and where the ERFD does not incur any operating costs associated with running the vehicles (this could be for response and non-response vehicles).

We also need data on the operational cost of buildings that are provided to the ERFD free of charge; however, we will re-use the information that you have already provided to the Asset Workstream. One further piece of information relating to whether your assets are provided "in-kind" is also required (this will be sourced by the Asset Workstream and they will be in touch with you shortly with a small follow-up request).

We are seeking the "in-kind" services provided to you for the 2015/16 financial year only. You'll note there is a field to indicate if the level and type of service provided has changed significantly over the last 3 years.

For each "in-kind" service provided, we need to understand how the cost of that service is allocated across the 4 "Rs" (reduction, readiness, response, recovery). In some instances, the cost will only sit under one of the 4 "Rs" (eg cost of services relating to issuing fire permits will sit under Reduction). In other instances, you will need to make a judgement about how to allocate the cost across a number of the 4 "Rs". We ask that you make this judgement using your knowledge of the ERFD and we recognise that it will only be based on an estimate of what you think is the most reasonable allocation of cost. Page 7 contains a definition of each of the 4 "Rs".

You only have to enter data in the yellow cells. Cells that are shaded grey contain instructions or information that is pre-populated.

Services provided by personnel to the ERFD free of charge

Number of Volunteer Firefighters in the ERFD		2015/16						Please indicate if the level of "in-kind" support has changed significantly in the last 3 years			
Description of service provided to ERFD free of charge	Employer of the personnel providing the services	Hours per week	Annual salary (approx.)	Employer overhead allocation	Reduction	Readiness	Response		Recovery	Other	Total
There is choice about how you fill in each row. Either: - use a different row to list each of the key "in-kind" services provided, or - use a different row where a single person is providing a number of "in-kind" services.		We will be making sure that, across all of New Zealand, a consistent approach is taken to cost similar services that are provided "in-kind".		To help us to do this, please estimate the average hours per week that are required to deliver the "in-kind" service to your ERFD.		Input values as a % (each row should total 100%). Page 7 defines the 4 "Rs". The "Other" column can be used to capture the proportion of cost relating to management and administration.					Only provide comments if you feel there has been a material change in the level of service (and therefore value of the service) provided over the last three years - otherwise leave blank.
The important thing is that we can identify the type of services that are being provided to the ERFD on an "in-kind" basis.		If you know (or able to find it out), also include: - the <u>approximate</u> salary cost (eg based on a salary mid-point rate), and - employer overhead allocation (this is the additional cost that a stakeholder might include on top of the direct salary cost, expressed as a percentage of the salary cost).									
Do not include any services or personnel whose cost is already captured on the previous page.											
The examples in the description column below are provided to give you prompts. You can over-write the examples and add new ones as you need to.				You will probably need to contact the stakeholder's finance team to find this information out. If it's not possible to identify the salary and overhead allocation, leave the cells blank.							



eg. Permit issuing	eg. DoC										0%	
eg. Phone call taker	eg. forestry company										0%	
eg. Board member or subcommittee member	eg. name of territorial authority										0%	
eg. Payroll or other finance support											0%	
eg. Duty/on call											0%	
eg. Trainer/tutor (eg. Someone provided by forestry company)											0%	
eg. Someone not paid by RFA who undergoes training (excluding volunteers)											0%	
											0%	
											0%	
											0%	
											0%	

Insert new rows above this row if needed

ERFD staff who use a stakeholder's office accommodation and related services free of charge

This section allows us to identify any accommodation and office-related services (eg electricity, workstation etc) that are provided to the ERFD on an "in-kind" basis. We will estimate the cost of this service using a consistent approach for all of New Zealand.

We only want to capture costs where (1) they are provided to ERFD-paid staff and (2) the service is provided to the ERFD free of charge.

2015/16

Number of staff directly paid for by your organisation AND who are provided in-kind accommodation

FTEs

Vehicles provided to the ERFD by stakeholders free of charge

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This section allows us to identify the running costs of vehicles that are provided to the ERFD by stakeholders free of charge. It captures the running costs of response and non-response vehicles. We will estimate the cost of this service using a consistent approach for all of New Zealand.

The majority, but not all, of the information you need to answer this section will be available on the Asset Workstream template that you have previously filled out.

The examples below are provided to give you prompts. You can over-write the examples and add new ones as you need to.

2015/16		
Registration number of vehicle provided "in-kind" to the ERFD	Vehicle owner	Comments (if required)
eg. DWE465	eg. name of territorial authority	eg. ERFD and council split the running costs 50:50
eg. AB465	eg. forestry company	



CAPITAL EXPENDITURE

The aim of this page is to capture capital expenditure:

- incurred by the ERFD over the last three financial years
- planned capital expenditure forecast over the next three financial years.

- For the planned capital expenditure, we need to capture your planned purchases based on meeting the demands of "today's business" - you don't need to guess what the asset requirements would be under the future FENZ environment.

You do not need to record any assets that were purchased or donated by stakeholders and provided to the ERFD for use.

You only have to enter data in the yellow cells. Cells that are shaded grey contain instructions or information that is pre-populated.



Capital asset expenditure incurred in the last three financial years

Asset Description	2013/14	2014/15	2015/16
Land and buildings	\$0	\$0	\$0

Use a different row for each building or piece of land that was purchased. This information will be available on the Asset Workstream template that you have previously filled out.

Don't record any assets provided "in-kind" (ie assets purchased or donated by stakeholders and the public and provided to the ERFD for use).

Enter the total cost to purchase the land or building

[illegible]

insert new rows above this row if needed

Vehicles	\$0	\$0	\$0
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Use a different row for each vehicle that was purchased and include the registration number. This information will be available on the Asset Workstream template that you have previously filled out.

Don't record any assets provided "in-kind" (ie assets purchased or donated by stakeholders and the public and provided to the ERFD for use).

Enter the total cost to purchase the vehicle.



insert new rows above this row if needed

Enter all other minor asset costs (eg PPE, hoses, pumps, plant and equipment) that are NOT included in the "Operating Cost" page.
Don't record any assets provided "in-kind" (ie assets purchased or donated by stakeholders and the public and provided to the ERFD for use).

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Ensure capital costs listed here are NOT double counted in the "Operating Cost" page.

\$0	\$0	\$0
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We only need planned asset purchases for large assets (over \$20,000 per item). Please list the planned capital expenditure over the next three years. The expected cost is the total cost of the asset regardless of how it is funded (eg. grants or donations).





Reduction

Identifying and analysing long-term risks to human life and property from natural or man-made hazards; taking steps to eliminate these risks where practicable and, where not, reducing the likelihood and the magnitude of their impact.

Examples of fire reduction activity include: public notification of fire danger, publicity campaigns, setting fire seasons, issue of fire permits and fuel management.

Readiness

Developing operational systems and capabilities before an emergency happens. These include response programmes for emergency services, utilities, and other agencies.

Readiness activities include pre-attack planning and fire preparedness systems which aim to maximise the success of attack.

This includes:

- initial attack plans and predetermined response levels
- manning levels and standby arrangements
- notification and dispatch procedures.

Response

Actions taken immediately before, during or directly after an emergency, to save lives and property, as well as help communities to recover. When developing response strategies it is important to consider the effect of elapsed time to minimise impact.

Recovery

Activities include policy and procedures on the health and safety of personnel, fire operation reviews and debrief process, post fire investigations and any other recovery activities that occur after a fire has been contained.

Source: Responsibilities of a Rural Fire Officer. National Training Document January 2012.



APPENDIX 4: DATA TABLES

The following tables provide the data behind the charts and analysis presented in this report.

Operating costs

Operating cost	2014	2015	2016	2016 normalised	Percent
Direct	\$24.8m	\$31.4m	\$38.5m	\$33.2m	95%
In-kind	\$1.8m	\$1.8m	\$1.8m	\$1.8m	5%
Total	\$26.6m	\$33.2m	\$40.3m	\$35.0m	100%

Capital expenditure

Actual and planned capital expenditure	2014 Actual	2015 Actual	2016 Actual	2017 Planned	2018 Planned	2019 Planned	Average
Land and buildings	\$0.6m	\$1.0m	\$0.9m	\$0.4m	\$1.0m	\$1.2m	\$0.8m
Vehicles	\$2.1m	\$1.7m	\$3.0m	\$1.4m	\$6.6m	\$2.1m	\$2.8m
Other minor assets	\$0.6m	\$0.6m	\$0.5m	\$0.3m	\$0.4m	\$0.2m	\$0.4m
Total capex costs	\$3.2m	\$3.3m	\$4.4m	\$2.0m	\$7.9m	\$3.5m	\$4.1m

Pro-forma cash cost

Pro-forma cash cost	2014	2015	2016
Operating costs	\$26.6m	\$33.2m	\$40.3m
Less depreciation	(\$2.3m)	(\$2.5m)	(\$2.7m)
Plus capital expenditure	\$3.2m	\$3.3m	\$4.4m
Cash cost	\$27.5m	\$34.0m	\$42.0m



Operating cost, by broad cost category

Operating cost	2014	2015	2016	2016 normalised	Percent
Personnel	\$8.2m	\$9.3m	\$11.1m	\$11.1m	32%
Training	\$1.0m	\$1.3m	\$1.3m	\$1.3m	4%
Equipment and vehicle	\$4.5m	\$5.2m	\$5.5m	\$5.5m	16%
Administration and overhead costs	\$1.7m	\$2.0m	\$2.3m	\$2.3m	7%
Building	\$1.1m	\$1.2m	\$1.4m	\$1.4m	4%
Fire suppression	\$2.3m	\$5.6m	\$9.8m	\$5.1m	15%
Depreciation	\$2.3m	\$2.5m	\$2.7m	\$2.7m	8%
Insurance	\$1.0m	\$1.2m	\$1.3m	\$0.6m	2%
Other	\$4.5m	\$4.8m	\$5.0m	\$5.0m	14%
Total	\$26.6m	\$33.2m	\$40.3m	\$35.0m	100%

Operating cost, by detailed cost category

Operating cost	2014	2015	2016	2016 normalised	Percent
Contracts for services	\$0.7m	\$0.5m	\$0.5m	\$0.5m	2%
Staff wages and salaries	\$6.9m	\$8.1m	\$9.6m	\$9.6m	27%
Other personnel cost	\$0.6m	\$0.7m	\$1.0m	\$1.0m	3%
Total Personnel Costs	\$8.2m	\$9.3m	\$11.1m	\$11.1m	32%
Training	\$1.0m	\$1.3m	\$1.3m	\$1.3m	4%
Weather station	\$0.2m	\$0.3m	\$0.3m	\$0.3m	1%
Building	\$1.1m	\$1.2m	\$1.4m	\$1.4m	4%
Equipment and vehicle	\$4.5m	\$5.2m	\$5.5m	\$5.5m	16%
VRFF costs	\$0.5m	\$0.7m	\$0.6m	\$0.6m	2%
Publicity and prevention/reduction costs	\$0.5m	\$0.6m	\$0.7m	\$0.7m	2%
Total Insurance cost	\$1.0m	\$1.2m	\$1.3m	\$0.6m	2%
ICT	\$0.1m	\$0.1m	\$0.2m	\$0.2m	0%
Total Depreciation Cost	\$2.3m	\$2.5m	\$2.7m	\$2.7m	8%
Total fire suppression costs	\$2.3m	\$5.6m	\$9.8m	\$5.1m	15%
Administration and overhead costs	\$1.7m	\$2.0m	\$2.3m	\$2.3m	7%
Other costs	\$3.1m	\$3.1m	\$3.1m	\$3.1m	9%
Total costs	\$26.6m	\$33.2m	\$40.3m	\$35.0m	100%

2016 normalised operating cost, by the 4 “Rs”.

Cost 4Rs	RFA	ERFD	Forestry	In-kind	Total	Percent
Reduction	\$2.1m	\$8.0m	\$3.2m	\$0.4m	\$13.7m	39%
Readiness	\$3.2m	\$5.7m	\$4.1m	\$1.1m	\$14.2m	41%
Response	\$0.8m	\$1.3m	\$2.8m	\$0.1m	\$5.0m	14%
Recovery	\$0.6m	\$0.9m	\$0.5m	\$0.1m	\$2.0m	6%
Total	\$6.7m	\$15.9m	\$10.6m	\$1.8m	\$35.0m	100%



2016 normalised operating cost, by type of organisation

2016 normalised costs by organisation type and cost category - including in-kind	RFAs	ERFDs	Forestry	Total	Percent
Personnel	\$2.1m	\$6.6m	\$2.4m	\$11.1m	32%
Training	\$0.3m	\$0.7m	\$0.3m	\$1.3m	4%
Equipment and vehicle	\$1.3m	\$2.7m	\$1.5m	\$5.5m	16%
Administration and overhead costs	\$0.7m	\$1.4m	\$0.2m	\$2.3m	7%
Building	\$0.2m	\$0.6m	\$0.6m	\$1.4m	4%
Fire suppression	\$0.8m	\$2.2m	\$2.2m	\$5.1m	15%
Depreciation	\$0.4m	\$1.3m	\$1.0m	\$2.7m	8%
Insurance	\$0.1m	\$0.3m	\$0.2m	\$0.6m	2%
Other	\$0.9m	\$1.7m	\$2.4m	\$5.0m	14%
Total	\$6.9m	\$17.5m	\$10.6m	\$35.0m	100%

Comparison of capital expenditure and depreciation

Comparison of capex and depreciation expense	2014 Actual	2015 Actual	2016 Actual
Total capex costs	\$3.2m	\$3.3m	\$4.4m
Depreciation	\$2.3m	\$2.5m	\$2.7m
Difference	\$0.9m	\$0.9m	\$1.7m



Rural Fire Fighting Fund suppression costs, last 10 years

RFFF fire suppression costs (excluding DOC)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Average
ERFD RFFF total incl excess	\$2.1m	\$0.8m	\$1.5m	\$1.6m	\$2.4m	\$0.6m	\$1.1m	\$2.9m	\$0.4m	\$1.7m	\$1.5m
RFA RFFF total incl excess	\$0.6m	\$0.4m	\$0.5m	\$0.3m	\$1.1m	\$1.5m	\$0.7m	\$0.7m	\$0.7m	\$0.9m	\$0.7m
Non-RFFF costs - ERFDs & RFAs*	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m	\$0.7m
Forestry companies	\$1.6m	\$3.4m	\$0.5m	\$3.5m	\$1.3m	\$1.6m	\$1.3m	\$0.8m	\$1.8m	\$5.8m	\$2.2m
Total ERFD and RFA	\$5.0m	\$5.2m	\$3.2m	\$6.2m	\$5.5m	\$4.5m	\$3.8m	\$5.2m	\$3.6m	\$9.1m	\$5.1m

* Non RFFF costs were not available for 10 years. The average of the last 3 years was used, and allocated across 10 years for the purposes of this table.

ERFD cost, by organisation

ERFDs - total direct and in-kind - actual cost	Auckland	Marlborough/ Kaikōura	Mid-South Canterbury	Northern	Otago	Pumicelands	Southern	Taranaki	Waimea	Wairarapa	Wellington	West Coast	Thames Valley RFD	TOTAL
2014	\$1.8m	\$0.9m	\$1.0m	\$0.9m	\$0.1m	\$1.4m	\$1.2m	\$0.6m	\$1.5m	\$0.7m	\$0.5m	\$0.5m	\$0.9m	\$12.2m
2015	\$1.9m	\$2.8m	\$1.2m	\$1.2m	\$2.0m	\$1.7m	\$1.2m	\$0.8m	\$1.4m	\$1.1m	\$0.8m	\$0.5m	\$1.0m	\$17.7m
2016	\$2.1m	\$3.8m	\$1.6m	\$1.5m	\$2.5m	\$2.2m	\$2.0m	\$0.8m	\$1.5m	\$2.8m	\$0.9m	\$0.5m	\$0.9m	\$23.2m



ERFD cost, by cost category

ERFDs - total direct and in-kind costs - actual cost	2014	2015	2016	2016 normalised	Percent
Personnel	\$4.5m	\$5.7m	\$7.3m	\$7.3m	42%
Equipment and vehicle	\$1.5m	\$2.1m	\$2.2m	\$2.2m	12%
Administration and overhead costs	\$0.9m	\$1.1m	\$1.4m	\$1.4m	8%
Building	\$1.0m	\$1.0m	\$1.2m	\$1.2m	7%
Fire suppression	\$1.7m	\$4.5m	\$7.7m	\$2.2m	12%
Depreciation	\$1.0m	\$1.1m	\$1.3m	\$1.3m	7%
Insurance	\$0.3m	\$0.4m	\$0.5m	\$0.3m	2%
Other	\$1.3m	\$1.7m	\$1.7m	\$1.7m	10%
Total	\$12.2m	\$17.7m	\$23.2m	\$17.5m	100%

ERFD cost, by organisation and cost category

ERFDs 2016 actual costs - total direct and in-kind	Auckland	Marlborough/Kaikōura	Mid-South Canterbury	Northern	Otago	Pumicelands	Southern	Taranaki	Waimea	Wairarapa	Wellington	West Coast	Thames Valley RFD	TOTAL
Personnel	\$0.99m	\$0.42m	\$0.51m	\$0.63m	\$1.01m	\$1.05m	\$0.56m	\$0.32m	\$0.61m	\$0.48m	\$0.34m	\$0.14m	\$0.22m	\$7.28m
Equipment and vehicle	\$0.29m	\$0.07m	\$0.21m	\$0.16m	\$0.25m	\$0.20m	\$0.20m	\$0.06m	\$0.12m	\$0.12m	\$0.07m	\$0.05m	\$0.18m	\$1.99m
Administration and overhead costs	\$0.04m	\$0.06m	\$0.09m	\$0.04m	\$0.12m	\$0.40m	\$0.12m	\$0.15m	\$0.10m	\$0.03m	\$0.08m	\$0.06m	\$0.11m	\$1.40m
Building	\$0.08m	\$0.08m	\$0.14m	\$0.12m	\$0.18m	\$0.07m	\$0.09m	\$0.00m	\$0.06m	\$0.04m	\$0.13m	\$0.04m	\$0.11m	\$1.15m
Fire suppression	\$0.26m	\$2.95m	\$0.19m	\$0.41m	\$0.56m	\$0.25m	\$0.75m	\$0.10m	\$0.06m	\$2.00m	\$0.13m	\$0.02m	\$0.03m	\$7.72m
Depreciation	\$0.18m	\$0.01m	\$0.16m	\$0.02m	\$0.16m	\$0.07m	\$0.14m	\$0.01m	\$0.33m	\$0.07m	\$0.01m	\$0.07m	\$0.08m	\$1.29m
Insurance	\$0.02m	\$0.03m	\$0.10m	\$0.02m	\$0.07m	\$0.05m	\$0.07m	\$0.02m	\$0.07m	\$0.01m	\$0.03m	\$0.00m	\$0.00m	\$0.49m
Other	\$0.26m	\$0.21m	\$0.15m	\$0.14m	\$0.15m	\$0.15m	\$0.08m	\$0.16m	\$0.11m	\$0.09m	\$0.11m	\$0.15m	\$0.14m	\$1.89m
TOTAL direct and in-kind	\$2.13m	\$3.84m	\$1.56m	\$1.54m	\$2.49m	\$2.24m	\$2.00m	\$0.82m	\$1.46m	\$2.84m	\$0.90m	\$0.54m	\$0.87m	\$23.22m



RFA cost, by organisation

RFA's - total direct and in-kind costs	Central Hawke's Bay District	Chatham Islands	Christchurch City	Gisborne District	Hastings District	Horowhenua District	Hurunui District	Kaipara District	Manawatu District	Otorohanga District	Palmerston North City	Rangitikei District	Ruapehu District	Selwyn District	Taranaki District	Waikato District	Wairarapa District	Waipa District	Wairoa District	Waitomo District	Wanganui District	Whangarei District	TOTAL
2014	\$0.2m	\$0.2m	\$0.6m	\$0.7m	\$0.7m	\$0.2m	\$0.3m	\$0.3m	\$0.2m	\$0.0m	\$0.2m	\$0.2m	\$0.2m	\$0.7m	\$0.3m	\$0.1m	\$0.2m	\$0.1m	\$0.0m	\$0.0m	\$0.3m	\$0.3m	\$6.2m
2015	\$0.3m	\$0.3m	\$0.8m	\$0.6m	\$0.6m	\$0.3m	\$0.3m	\$0.2m	\$0.3m	\$0.0m	\$0.2m	\$0.2m	\$0.3m	\$0.8m	\$0.3m	\$0.2m	\$0.4m	\$0.1m	\$0.0m	\$0.0m	\$0.3m	\$0.1m	\$6.9m
2016	\$0.4m	\$0.3m	\$0.9m	\$0.7m	\$0.6m	\$0.2m	\$0.3m	\$0.3m	\$0.2m	\$0.0m	\$0.2m	\$0.2m	\$0.4m	\$1.0m	\$0.3m	\$0.1m	\$0.7m	\$0.1m	\$0.0m	\$0.0m	\$0.2m	\$0.2m	\$7.4m

RFA cost, by cost category

RFA's - total direct and in-kind costs	2014	2015	2016	2016 normalised	Percent
Personnel	\$2.4m	\$2.4m	\$2.4m	\$2.4m	35%
Equipment and vehicle	\$1.2m	\$1.3m	\$1.3m	\$1.3m	19%
Administration and overhead costs	\$0.7m	\$0.8m	\$0.7m	\$0.7m	10%
Building	\$0.2m	\$0.2m	\$0.2m	\$0.2m	3%
Fire suppression	\$0.6m	\$1.0m	\$1.3m	\$0.8m	11%
Depreciation	\$0.4m	\$0.4m	\$0.4m	\$0.4m	6%
Insurance	\$0.1m	\$0.1m	\$0.1m	\$0.1m	1%
Other	\$0.6m	\$0.7m	\$0.9m	\$0.9m	13%
Total	\$6.2m	\$6.9m	\$7.4m	\$6.9m	100%



RFA cost, by organisation and cost category

RFA's 2016 actual costs - total direct and in-kind	Central Hawke's Bay District	Chatham Islands	Christchurch City	Gisborne District	Hastings District	Horowhenua District	Hurunui District	Kaipara District	Manawatu District	Otorohanga District	Palmerston North City	Rangitikei District	Ruaapehu District	Selwyn District	Taranaki District	Waikato District	Waimakariri District	Waipara District	Wairoa District	Waitomo District	Wanganui District	Whangarei District	TOTAL
Personnel	\$0.09m	\$0.16m	\$0.34m	\$0.34m	\$0.17m	\$0.15m	\$0.06m	\$0.08m	\$0.15m	\$0.03m	\$0.12m	\$0.00m	\$0.09m	\$0.22m	\$0.04m	\$0.01m	\$0.07m	\$0.04m	\$0.03m	\$0.03m	\$0.10m	\$0.14m	\$2.43m
Equipment and vehicle	\$0.06m	\$0.00m	\$0.11m	\$0.21m	\$0.23m	\$0.00m	\$0.09m	\$0.03m	\$0.00m	\$0.01m	\$0.04m	\$0.00m	\$0.10m	\$0.18m	\$0.08m	\$0.04m	\$0.11m	\$0.01m	\$0.01m	\$0.01m	\$0.03m	\$0.00m	\$1.32m
Administration and overhead	\$0.03m	\$0.06m	\$0.05m	\$0.01m	\$0.05m	\$0.02m	\$0.08m	\$0.03m	\$0.02m	\$0.01m	\$0.03m	\$0.06m	\$0.14m	\$0.01m	\$0.03m	\$0.00m	\$0.06m	\$0.01m	\$0.01m	\$0.01m	\$0.00m	\$0.00m	\$0.72m
Building	\$0.01m	\$0.03m	\$0.01m	\$0.05m	\$0.02m	\$0.00m	\$0.01m	\$0.01m	\$0.00m	\$0.00m	\$0.02m	\$0.00m	\$0.00m	\$0.02m	\$0.01m	\$0.02m	\$0.02m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.22m
Fire suppression	\$0.09m	\$0.00m	\$0.32m	\$0.00m	\$0.05m	\$0.04m	\$0.03m	\$0.06m	\$0.04m	\$0.00m	\$0.00m	\$0.00m	\$0.03m	\$0.31m	\$0.04m	\$0.01m	\$0.27m	\$0.01m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$1.30m
Depreciation	\$0.03m	\$0.00m	\$0.02m	\$0.03m	\$0.02m	\$0.00m	\$0.04m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.02m	\$0.13m	\$0.06m	\$0.03m	\$0.01m	\$0.01m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.41m
Insurance	\$0.01m	\$0.00m	\$0.01m	\$0.02m	\$0.01m	\$0.00m	\$0.00m	\$0.01m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.00m	\$0.03m	\$0.00m	\$0.00m	\$0.01m	\$0.00m	\$0.00m	\$0.00m	\$0.02m	\$0.00m	\$0.14m
Other	\$0.06m	\$0.00m	\$0.06m	\$0.02m	\$0.09m	\$0.00m	\$0.02m	\$0.07m	\$0.00m	\$0.01m	\$0.02m	\$0.10m	\$0.01m	\$0.08m	\$0.02m	\$0.03m	\$0.16m	\$0.02m	\$0.01m	\$0.01m	\$0.08m	\$0.02m	\$0.89m
TOTAL direct and in-kind	\$0.37m	\$0.26m	\$0.91m	\$0.68m	\$0.64m	\$0.22m	\$0.33m	\$0.29m	\$0.22m	\$0.05m	\$0.24m	\$0.15m	\$0.39m	\$0.98m	\$0.26m	\$0.14m	\$0.70m	\$0.11m	\$0.05m	\$0.05m	\$0.24m	\$0.17m	\$7.44m

Forestry operating costs, by cost category

Overall Forestry costs	2014	2015	2016	2016 normalised	Percent
Personnel	\$2.3m	\$2.4m	\$2.7m	\$2.7m	26%
Equipment and vehicle	\$1.3m	\$1.3m	\$1.5m	\$1.5m	14%
Administration and overhead costs	\$0.1m	\$0.1m	\$0.2m	\$0.2m	2%
Building	\$0.5m	\$0.5m	\$0.6m	\$0.6m	6%
Fire suppression	\$0.1m	\$0.2m	\$0.7m	\$2.2m	20%
Depreciation	\$0.9m	\$0.9m	\$1.0m	\$1.0m	9%
Insurance	\$0.6m	\$0.7m	\$0.7m	\$0.2m	2%
Other	\$2.5m	\$2.4m	\$2.4m	\$2.4m	22%
Total	\$8.3m	\$8.6m	\$9.7m	\$10.6m	100%

