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## The Impact of a Reduction in Rural Post Delivery Frequency

Report to the Ministry of Business, Innovation and Employment

> July 2013

## Acronyms and Abbreviations

COURAL	Rural Couriers Society Ltd	
MBIE	Ministry of Business, Innovation and Employment	
NZ Post	New Zealand Post	
RD	Rural Delivery	
SOE	State Owned Enterprise	
USO	Universal Service Obligation	

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## **Executive Summary**

#### Rural Delivery in New Zealand

The rural delivery service in New Zealand is made up of 578 individual delivery runs covering 230,000 delivery points (addresses). The Deed of Understanding between NZ Post and the government requires that delivery to these address points occurs five or six days a week. Over [] percent of all mail items in New Zealand are delivered to a rural address point and this equates to around [] million items a year.

Rural drivers are not limited to deliver mail on behalf of New Zealand Post. Drivers also deliver other items to these rural addresses. Courier items are the largest category of items delivered outside of mail. Slightly less than half the courier items are delivered on behalf of NZ Post Group courier brands and the other half is delivered on behalf of other courier companies. Rural drivers are free to contract with any other service provider they choose as they have nonexclusive contracts with NZ Post. These services therefore depend on the individual run, and vary from farm supplies delivery to basic grocery items.

Rural drivers have a 'benchmark' contract with NZ Post for mail items that covers vehicle and labour costs. NZ Post also pays drivers unit rates for the delivery of non-mail items such as courier parcels and flyers from the NZ Post Group of companies and newspapers. In addition rural drivers also earn per item amounts for courier items from other courier companies. There are also independent contracts operated by individual drivers for individual customers. The amount that rural drivers earn from the different sources varies by driver. In aggregate, of the known payments that rural drivers receive, [ ] percent is from the benchmark contract with NZ Post, and the remainder is from courier items and other services.

#### What mail items are affected by a reduction in service?

Mail volume nationwide is expected to decline rapidly for the foreseeable future. Volume decline has accelerated in recent years and the market has shed 25 percent of the total volume in the last five years. Volume is expected to shed from 30 percent to 50 percent in the next five to seven years. NZ Post has asked the government for the flexibility to reduce service frequency in response to these market conditions. This report analyses the impact on rural customers if mail delivery was reduced to the requested three day a week minimum frequency from the current five to six day minimum.

We find that the impact varies across the different categories of mail. The vast majority of mail, including transactional mail (like bills and statements) and personal mail (cards and letters), is in rapid decline because there is an increasing range of alternatives to mail. For these categories of mail, digital alternatives allow quick and cheap communication, so a reduction in mail delivery frequency will have little impact. For the fifth of rural households that do not have internet at home, there is a larger reliance on daily mail. However data shows that less than one percent of letters are currently sent as priority overnight delivery, indicating that there is little negative effect in mail being delivered one day later.

The mail that may impose a cost is mail that is time sensitive and does not have digital alternatives. We find that the items that are time sensitive and do not have readily available alternatives are concentrated in the courier markets. Courier products provide for physical items that do not, for the most part, have digital delivery alternatives. We find that of the estimated [] million items per year delivered to rural addresses, [] million are in the category of next day service through courier product purchase.

When delivery frequency is cut from six to three days a week, half of mail items will now be delivered in two days rather than overnight. 2.9 million items per year (2.4 percent of rural mail) will be negatively affected by a reduction in mail delivery frequency.

## How will rural delivery drivers respond if NZ Post cuts mail delivery to three days a week?

Rural drivers are independent contractors. If NZ Post cuts back mail delivery to three days a week, they need to renegotiate their contract with NZ Post, with other courier companies and with rural customers. We see three possible responses by rural drivers: firstly they could continue to deliver non-postal items five or six days a week and attempt to recoup the costs through a combination of (i) negotiating a higher fee from NZ Post for the remaining three days, (ii) seek higher unit revenue from courier and other items, or (iii) increase the services they sell from their increased capacity on off days. Secondly, they could reduce all delivery services to three days, or thirdly they could exit the rural delivery sector altogether.

We find that the expected frequency of service will depend mainly on the cost of delivery:

- In high-density low-cost delivery areas (likely to be urban fringe) we find that rural customers are likely to continue to receive a five or six day a week service for non-post items. Either rural drivers will find it profitable to continue to serve these customers, or alternative delivery agents such as private courier firms will expand their delivery runs. We estimate that roughly 10 percent of all delivery points fall into this category where they are likely to receive continued five or six day a week non-post services.
- In contrast, in low-density high-cost delivery areas there is a very low probability of the service continuing six days a week, as it is simply not profitable to continue once the NZ mail contract is cut back to three days a week. We estimate that roughly 30 percent of all delivery points, with an average annual cost of above \$[ ] a year, are likely to face three day a week delivery for both post and non-post items when postal delivery frequency is cut back.
- For the remaining 60 percent of rural delivery points that are not urban fringe or very isolated, the frequency of service will vary case by case. We estimate that approximately one in six rural drivers will be willing to continue delivering five or six days a week for a small delivery fee (without considering who pays).

The opportunity costs that the drivers face will dictate the outcome they choose. Overall we expect only 20 percent of rural delivery points to have a high likelihood of six day a week delivery for non-postal items if NZ Post cuts postal delivery to three days a week. In this study, it is not possible to predict exactly which rural delivery runs, or which delivery point within these runs, will maintain six day a week service.

#### What is the overall customer impact from a reduction to three day minimums?

From the demand side, we estimate that 2.4 percent of mail is time sensitive and has limited digital alternatives. From the supply side, we estimate that rural drivers will continue to deliver non-post items such as courier items and newspapers six days a week to, at most, 20 percent of rural delivery points. Overall, this means that approximately 2.5 million items a year will be negatively affected if NZ Post reduces all postal delivery to three days a week. At a rural household level, this equates to 11 items that are negatively impacted per year (less than one per month on average a minority of which is NZ Post product).

We imagine that both senders and receivers of rural post will modify their behaviour over time to mitigate this negative impact, should it occur. For example, senders will no longer purchase next day services, while receivers may arrange to pick up certain items like newspapers or urgent courier items when they go to town for other business. While there is limited data on how customers are likely to respond, it is safe to assume that the negative impact will be significantly reduced if service reductions were made gradually.

## 1 Introduction: Why Does MBIE Want to Know the Impact of Reduced frequency?

NZ Post has developed a proposal that considers the possibility of reduced frequency in postal delivery. Castalia has been engaged by MBIE to identify and describe the nature of mail items delivered through rural post delivery services. In addition MBIE have asked for consideration of the alternatives that might exist or emerge as a result of a reduction in mail services, and the identification of situations where no alternative for next day service would be likely to exist.

#### The regulatory context of postal services in New Zealand

New Zealand Post is a State Owned Enterprise (SOE) responsible for postal services across New Zealand. As an SOE, NZ Post is required to operate as a profitable and efficient business that has regard to the interests of the community in which it operates<sup>1</sup>. The main regulatory tool, specific to NZ Post, is the Deed of Understanding (The Deed) first signed between the New Zealand government and NZ Post in 1989.

The Deed serves two main purposes. The first purpose is regulatory: to ensure that the monopoly position of NZ Post in the postal market does not lead to abuse of market power. The second purpose is social: to ensure that NZ post delivers a reasonable level of postal services to all New Zealanders. This is called a Universal Service Obligation (USO) and is designed to protect customers that are the most expensive to serve. In particular, the USO is intended to protect rural households, whose low population density makes postal delivery expensive.

Amongst other requirements, the most recent (1998) version of the Deed requires NZ Post to:

- Maintain six day a week delivery to at least 95 percent of delivery points, and five or six day delivery to at least 99.88 percent of delivery points
- Maintain at least 1,463,938 delivery points
- Maintain a network of at least 880 postal outlets and post centres, including at least 240 postal outlets, which provide agency and/or other services, and
- Not reintroduce the rural delivery fee.

#### NZ Post has requested flexibility to respond to falling demand for postal services

Since the most recent amendment to the Deed, the demand for postal services has declined rapidly. The expansion of new technologies, such as cell phones, email, secure company internet portals and social media sites, allow for quick and low cost communications. Between 2002 and 2013, total mail volumes have fallen from 1,100 million to 835 million items (a 25 percent reduction). The annual decline in the

<sup>&</sup>lt;sup>1</sup> State Owned Enterprises Act 1986, Part 1, "4 Principal objective to be successful business (1) The principal objective of every State enterprise shall be to operate as a successful business and, to this end, to be—(a) as profitable and efficient as comparable businesses that are not owned by the Crown; and(b) a good employer; and(c) an organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to accommodate or encourage these when able to do so"

most recent financial year of 6.9 percent was the highest ever annual percentage decline, suggesting that the pace of decline is accelerating.

The decline in demand for postal services threatens the ability of NZ Post to remain a profitable and efficient business (as required by the SOE Act) while meeting the service requirements under the Deed. NZ Post has asked the government to relax the constraints in the Deed to allow the business to adjust to the falling level of demand through reducing service levels.

The Ministry of Business Innovation and Employment (MBIE) is required to assess NZ Post's proposal to determine whether a change to the Deed is justified. One of the main changes proposed by Post is to reduce the contractual obligation for service days from *five* days to *three* days a week for 99.88 percent of delivery points.

MBIE expect that the group most affected by a reduction in delivery frequency will be rural receivers. This is because **rural receivers**:

- Rely on postal delivery agents for more services than urban customers. Rural postal drivers provide additional services that urban posties do not provide. For example, rural drivers also deliver courier items, newspapers and sometimes even bread and milk. If the postal service is reduced to three days a week, some of these services may not be provided to rural customers independently of the post.
- Have fewer alternatives. It is more expensive for rural customers to drive to town to pick up letters from a PO Box. Rural customers in general have lower bandwidth for accessing bills and personal communications online. Initiatives to increase bandwidth in rural areas are improving , nevertheless rural areas will likely lag behind urban areas in the foreseeable future

Studies by NZ Post confirm that rural customers are more sensitive to changes in delivery frequency than urban customers. A 2009 study<sup>2</sup>, which included interviews with rural customers from the Waikato, revealed that rural delivery frequency is important for rural customers because their home is often their business (among other factors). Interviews also revealed that rural customers are worried that cuts to mail delivery will affect delivery of their newspapers, and they place a high value on the delivery of the Saturday paper.

#### This report assesses the impact on rural customers of reducing delivery frequency

The purpose of this report is to assess the impact of a potential reduction in rural mail delivery frequency. We do this in five steps:

- First, we describe what rural postal services currently look like (section 2)
- Second, we identify which postal items will be most affected by a reduction in postal frequency (section 3)
- Third, we assess how the rural postal delivery system is likely to be affected by a reduction in service (section 4)
- Fourth, we assess what alternatives for delivery exist to supplement the rural delivery network (section 5)

<sup>&</sup>lt;sup>2</sup> Presentation by the Research Agency "Future delivery programme customer research: Exploring potential opportunities for future network changes" December 2009

• Finally, we conclude with assessing the impacts after accounting for the demand side and supply side responses of the rural delivery service (section 6).

## 2 What Do Rural Postal Services Currently Look Like?

To enable us to assess the impact on rural customers of reducing the frequency of mail services, we need to understand *how* rural post is currently delivered (section 2.1), how much rural delivery *costs* (section 2.2) and what *types and volumes* of services are currently delivered (section 2.3).

#### Defining rural postal services

For the purpose of this report, "rural postal services" refers to the delivery of mail and courier items to people with a Rural Delivery (RD) address. Of the 1.9 million delivery points in the NZ Post network, 230,502 (12 percent) are Rural Delivery.

Rural Delivery points are serviced differently to the rest of the delivery points in NZ Post's network. Rural Delivery customers live too far apart to be serviced by NZ Post employees on foot, bicycle or moped. In fact, the operational definition of Rural Delivery within NZ Post is best described as areas where delivery is most efficiently done by vehicle (often a truck). NZ Post serves Rural Delivery customers through independent drivers who are not NZ Post employees. The model for rural postal drivers is explained further below.

Table 2.1 provides some key statistics on rural delivery in New Zealand. In 2012, NZ Post Group spent **§**[ ] million<sup>3</sup> on rural delivery. It is not straight forward to calculate an equivalent revenue number for rural delivery. When someone buys a stamp, NZ Post does not know whether this will be used to send a letter to a rural customer or an urban customer. So revenue cannot sensibly be allocated to rural delivery, or PO Box delivery, for example<sup>4</sup>. The proportion of mail delivered to a rural address is the best measure of the revenue proportion that could be attributed to rural delivery.

Approximate Number of Delivery Points Nationwide	1,900,000
Current Number of Rural Delivery Addresses	230,502
Percentage of mail to rural delivery points (estimated)	15%
Current Number of Rural Delivery Runs	5785
Approximate Annual Cost of Rural Delivery to NZ Post Group (including Piece rates from NZ Post owned companies) in 2011	<pre>\$[ ] million</pre>

Table 2.1: Ke	y Statistics on	<b>Rural Delivery</b>	in New Zealand

Source: NZ Post

<sup>&</sup>lt;sup>3</sup> This is total expenditure from NZ Post Group. It is not equivalent to total rural driver earnings, or core mail only payments.

<sup>&</sup>lt;sup>4</sup> In addition, revenue measures and operational counts of mail can have significant time lags and variances in measurement. Mail services are sold to the mass market as a token, to be used how and when a sender chooses, whereas delivery services are maintained irrespective of volume. There is an expectation of delivery service levels inherent in the token when it is sold.

<sup>&</sup>lt;sup>5</sup> This is the 'current' figure provided by NZ Post.

As of January 2013, 88 percent of rural delivery points receive six day a week postal service. Eleven percent receive five day a week postal services. The remaining one percent receives three days a week service or less.<sup>6</sup> NZ Post is asking the government to reduce the minimum standard to three days a week for 99 percent of delivery points. For the sake of simplicity, the rest of this report talks about the impact of reducing rural postal delivery from *six* to *three* days a week. This is a conservation approach that is likely to overstate results for two reasons. Firstly because 12 percent of customers currently do not receive less than six day a week, so the impact will be smaller than those who currently receive 6 day a week service. Secondly because NZ Post has stated that it is unlikely to immediately reduce all delivery points to three days if the deed is changed.

#### 2.1 Model for Rural Postal Services

The mail business, at the highest level, can be simplified down to three processes: acceptance (collecting post from post boxes and post offices), processing (sorting mail into delivery runs), and delivery, as shown in Figure 2.1.



#### Figure 2.1: General Structure of Postal Business

For NZ Post to save significant amounts of money from reducing service days, the whole network (including acceptance, processing and delivery) needs to have reduced service days. This means that if service days are reduced, you cannot simply go to your local post office to collect mail on days where there is no delivery, as the mail has not been collected or processed for you to pick up.

<sup>&</sup>lt;sup>6</sup> As of January 2013, [ ] rural delivery points received 3 day a week service, [ ] rural delivery points received 2 day a week services, while [ ] rural delivery points only received 1 day a week service.

<sup>&</sup>lt;sup>7</sup> NZ Post has recently announced plans to reduce the number of processing sites from 6 to 3 over the next two years.

NZ Post operates three main forms of delivery: by postie, into a PO Box and delivery by a rural contractor to a Rural Delivery address. Rural postal services operate in the same way as non-rural postal services at the acceptance and processing levels, but slightly differently at the delivery level.

#### Critical role of independent rural drivers in delivery (and acceptance) of rural post and non-post items

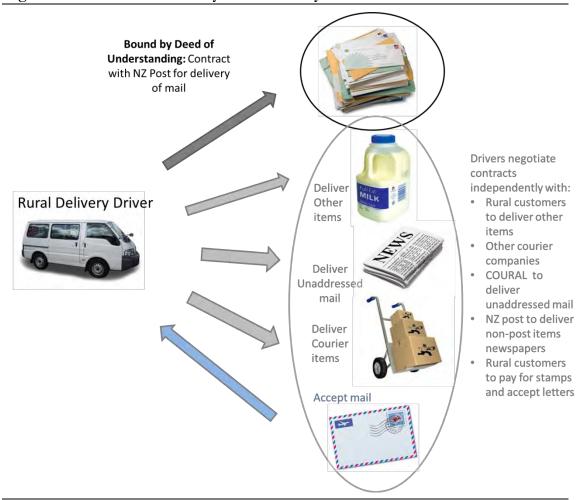
NZ Post does not employ its own staff to deliver mail to rural deliver points. Instead NZ Post contracts with independent drivers for each of the 578 rural delivery runs around New Zealand. These contracts have a payment schedule based on the distance driven for each delivery run, and on the volume of mail delivered.

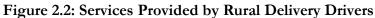
Rural drivers also play a number of additional roles that NZ post employed posties do not play in urban areas. Firstly, rural drivers do not just deliver mail to their rural customers; some rural drivers also accept mail from their rural customers to deliver back to the depot. Rural drivers sell stamps, prepaid envelopes and parcel boxes from their delivery vans.

The second difference between urban posties and independent rural drivers is that they also deliver non-post items. Rural drivers usually have contracts with parties other than NZ Post for the delivery of other items to rural customers. Most of the independent drivers are part of a cooperative called COURAL (Rural Couriers Society Ltd), which was founded in the early 1980s and operates as a collective contractor.

The extra services undertaken by rural drivers include (see Figure 2.2):

- Delivery of Post sourced courier items, unaddressed mail (circulars) and newspapers. Post pays drivers unit rates ("piece rates") for the delivery of these items from the wider Post Group of companies.
- **Delivery of Non-Post Courier items.** Most courier companies do not use their own network of drivers to deliver to rural areas, instead contracting with independent rural drivers to deliver courier items when they deliver the mail.
- **Delivery of Other items.** Some rural drivers have private contracts directly with their rural customers to deliver other items such as milk and bread, DVD hires, or farm supplies.
- Acceptance / Sale of Postal Product. Rural drivers act as a sales channel for NZ Post as they offer stamps and postal items for sale to receiving customers. They also often pick that mail up and deliver it to a Post Office Box. Post pays drivers a sales commission on these sales. NZ Post says that rural drivers sell around \$[ ] (wholesale) of stamps, prepaid envelops and parcel boxes a year.





In most cases the viability of these additional contracts is based on the fact they can "piggy-back" off their contract with NZ Post for mail delivery. In other words, without the NZ Post contract for mail delivery, other contractors (courier companies, newspapers, advertising agencies and rural households) would have to pay rural drivers a higher price to cover rural driver's costs of delivery.

Understanding the link between the contracts for post and non-post items is crucial for assessing the impact of reducing the frequency of rural postal delivery. NZ Post is well aware of this link: while its role is not to underwrite other commercial services, it wants to work with rural customers to understand how to minimise the negative side effects of a reduction in postal frequency (see Box 2.1)

#### Box 2.1: NZ Post Aware of Impact on Rural Customers of Reduced Delivery

"If New Zealand Post no longer paid Rural Post drivers for five or six day per week delivery, those other goods would not be able to be carried without extra payments to drivers, whether by the provider of those other goods, the receiver, or otherwise (e.g. via a subsidy).

Therefore, changes to rural delivery frequencies would have a potential impact that is wider than changes to delivery frequency in urban areas. The Government's objectives relating to access to communications do not provide a policy rationale for New Zealand Post to \_\_underwrite' the delivery of other goods by maintaining a higher delivery frequency than is sustainable on the basis of letter volumes alone.

However, New Zealand Post values its relationship with the rural sector, and would not want to see it unduly disadvantaged. New Zealand Post is therefore keen to work with the rural community and other customers of Rural Post drivers to develop a commercially sustainable solution for all parties. New Zealand Post will actively engage with rural sector organisations to that end."

Source: Quote from the "Proposal by New Zealand Post to Minister for Communications and Information Technology", January 2013

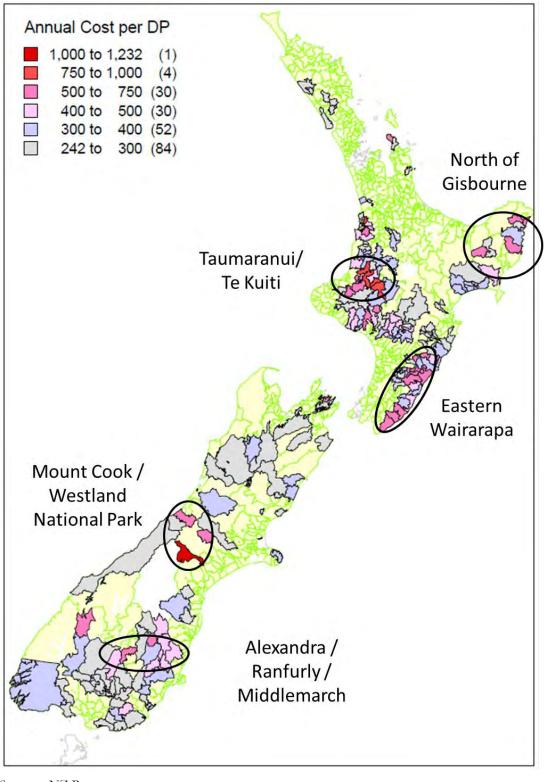
#### 2.2 Cost Distribution for Rural Delivery

In 2011, NZ Post Group spent approximately \$[ ] million on rural delivery. Within the core benchmark contract for mail items approximately \$[ ] million of this is paid to rural drivers to cover vehicle costs (per kilometre driven) while the other \$[ ] million is paid for labour costs. The remaining \$[ ] million of Post Group expenditure on rural delivery is piece rates for courier items or newspaper and flyer delivery.

Delivery to rural customers is broken into 578 rural delivery runs across New Zealand. Each of these runs contains an average of [] customers, with a range from [ customers to [ customers. It is important to remember that each delivery run contains] a mix of cheaper-to-serve delivery points that are closer to town and spaced closer together, and expensive-to-serve delivery points that are more isolated. However we only have data on the average cost of a delivery point for each of the 578 runs. This disguises the variation in cost per delivery point *within* each run.

The average cost per delivery point by run varies across New Zealand, ranging from around \$50 to over \$1,000 per year. Figure 2.3 shows a map of the annual cost per delivery point across New Zealand. The most costly points are in isolated areas with low population densities like Mount Cook, South Eastern Wairarapa, and Taumaranui.

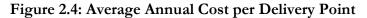


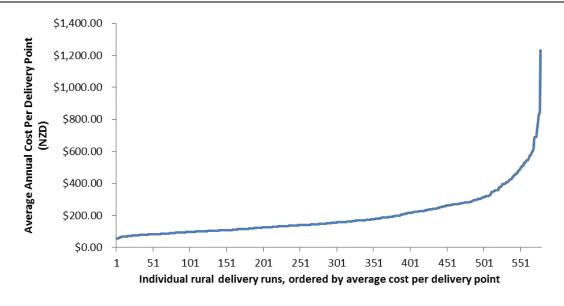


Source: NZ Post

Figure 2.4 shows the distribution in cost per delivery point across all 578 rural delivery runs. It is important to note that over half rural delivery runs (covering 87 percent of rural delivery points) have an average cost per delivery point below **[**] per year. Only **[**] delivery runs (covering 1 percent of delivery points) have an average cost per delivery points) have an average cost per delivery point.

point above [1] a year. A complicating factor is that each run has a combination of more expensive and less expensive delivery points.





#### 2.3 Current and Forecast Volumes of Mail for Rural Customers

The impact of reducing the frequency of mail delivery depends on what the mail is used for and how much mail customers receive. For example, traditional personal letters only make up an estimated three percent of mail volumes and are expected to decline further as email and phone calls continue to replace letters.

To understand the impact of reducing mail delivery frequency, this section identifies:

- What categories of mail NZ Post currently delivers, and
- The importance of each mail category in terms of volumes and revenues, and how this is forecast to change over time.

We do not have data on mail categories specific to rural customers; however we understand that rural volumes follow a similar pattern to the network totals with a lag. This section looks at volumes and trends in total mail volumes. Rural volumes are in total around 15 percent of all volume.

Table 2.2 identifies the five main categories of mail that NZ Post delivers, explaining how important each category is in terms of current mail volumes, and the predicted annual growth or decline in these mail volumes.

Mail Category	Current % of Volume <sup>8</sup>	Predicted annual growth or decline in Volume	Dominant Trend
Personal Communication	2%	-10%	Personal communications were once the dominant use of the mail network. However, for many years now the mail network has been declining as a tool for personal communications. This is a result of many waves of technological substitution beginning with the telegraph, then the telephone, the mobile phone, email and more recently social media such as Facebook and Twitter. Personal communications are now almost irrelevant as far as the business of mail is concerned, representing probably less than 3% of mail volumes. The annual rate of decline has been around 10% in recent years.
Transactional mail	65%	-8%	This type of mail is now the largest category of mail by volume on the mail network and was growing strongly until around 2007 when it reached a plateau and has now fallen into decline also. Technological substitution has begun to hit this category hard due to the availability of information from more convenient, cheaper, and more frequent alternatives such as secure company internet portals, and emails.
Promotional mail	15%	+ 1 to 5%	A growing category of mail. The physical attributes and longevity of mail as a promotional item differentiate it from digital alternatives. There is likely to be a continued demand for mail for this purpose.

#### Table 2.2: Mail Categories

<sup>&</sup>lt;sup>8</sup> These numbers are derived from the MVM (Mail Volume Monitor) forecast of mail volumes. Operational counts and their forecasts have been converted into segments based on expected likelihood of an operational category containing a certain type of mail. MVM forecasts are detailed and provide accurate projections of operational counts. Converting these into segments is estimation only, however, as the monitor for mail contents ceased in 2005 for budgetary reasons.

Mail Category	Current % of Volume <sup>8</sup>	Predicted annual growth or decline in Volume	Dominant Trend
Magazines	5%	+ 1 to 5%	Steady, unspectacular, growth is evident in this category. Technological substitution is relatively subdued for magazines (as compared with newspapers). It is not known whether technological substitution will impact this industry to the same extent as, say, newspapers for example.
Packets and parcels	8.5%	+ 1 to 10%	This category includes a small number of parcels sent via NZ Post, as well as Post owned courier brands <sup>9</sup> and non- post courier brands. Parcel volumes have grown, driven by the growth in internet purchases, and their related fulfilment.
Other services	n/a	Unknown	In the rural network there is continued use of the network for newspaper delivery contracts, unaddressed mail and postal product sales (including mail pick up). There is also a range of independent contracts entered into by rural drivers with local businesses and receivers on an individual basis. Post does not have full visibility of this but encourages it as it offset the total costs of rural delivery and makes rural delivery runs more viable overall.

Table 2.2 identifies that the most important category of mail by volume is transactional mail (bills, bank statements, contracts), making up 65 percent. The least important category (by volume), making up 2 percent of volume, is personal communications. Both these categories are expected to decline over time. For example, Figure 2.5 shows how each mail category is forecast to decline between now and 2016/17. This shows that

<sup>&</sup>lt;sup>9</sup> NZ Post Group holds around a percent market share of courier items under its affiliated brands.

transactional mail is forecast to fall from 83 million items in 2012/13 to 40 million items in 2016/17.

The three other mail categories (promotional mail, magazines and parcels) are all expected to grow over time. Parcels (making up 8.5 percent of volume, but a much larger percentage of revenue) are expected to grow strongly over time as the boom in online shopping continues to fuel increased delivery of books, clothes, and other online purchases. For example, Figure 2.5 shows that courier items are forecast to increase from 9.7 million items in 2012/13 to 11.8 million items in 2016/17.

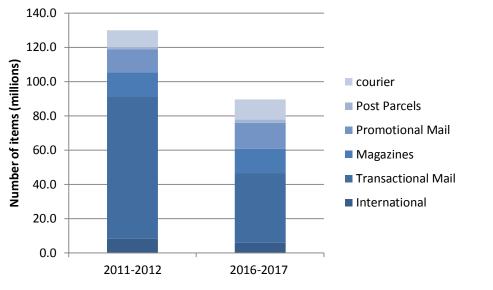


Figure 2.5: Rural Post Expected Delivery (million items)

Source: Adapted from NZ Post MVM Mail Volume Forecast

Despite the predicted growth in parcels and courier items over the next five years, this is not expected to offset the large declines in mail volumes. Mail currently earns NZ Post over 90% of the contribution towards fixed network costs, while parcels earn less than 5% (of the total contribution from the mail network only). So even with growth in parcel and courier volumes, overall postal volumes and revenues are expected to continue to fall markedly over the next five years<sup>10</sup>.

# 3 Which Mail Items are Most Affected by Reduced Frequency?

Reduced delivery frequency affects rural customers as both senders and receivers of mail:

• As senders, some rural customers rely on their rural delivery driver to collect their mail. Reduced frequency will mean their post items take longer to reach their destination. This is likely to be most problematic for rural businesses that send time sensitive items to their customers via the postal system.

<sup>&</sup>lt;sup>10</sup> Contribution models describe the revenue less the direct attributable costs to that service family. They are operated within NZ Post across the core mail network. Therefore they do not represent courier contribution and other noncore services such as pamphlet and flyer distribution (which is owned by Reach Media – a partly Post owned company).

 As receivers, rural customers will receive half of their items a day later than currently if the postal network reduces from six to three days a week service. Rural customers cannot collect mail on non-delivery days, even if they wanted to drive to their nearest post shop, as no postal items have been collected or processed on the non-delivery days.

The mail items most affected by reduced delivery frequency are those that are time sensitive (that is, either the sender or receiver cares if the item is delivered one day later) and have no alternative short-term delivery modes. This is because if an item is not time sensitive then, by definition, a delay will have no noticeable impact or impose no cost on the sender or receiver. If an item is time sensitive and an alternative exists then it is reasonable to assume that the alternative will be utilised to mitigate the negative impact.

#### 3.1 Grouping Mail Items by Impact of Reducing Delivery Frequency

Figure 3.1 shows that rural mail can be divided into four types, with negative impact concentrated in type D items (time sensitive with limited alternatives):

- Type A: not time-sensitive, and has available alternatives. For example: Personal letter /postcard. It is easy to replace with email, Facebook, or a phone call if time is important
- Type B: time sensitive, but has available alternatives. For example Birthday card / results of health test / Newspaper. Timing matters, but easy to replace with an email, phone call or online news outlet
- Type C: not time sensitive, and has limited alternative delivering options. For example Book bought online. Physical goods must be delivered or picked up in person. However there is little cost to either the sender or the recipient of the book arriving a day later.
- Type D: time sensitive, and has limited short-term alternative delivery options. For example, Machinery part for a broken tractor, medicine for sick stock. Waiting a day for either of these will reduce farm productivity. The only alternatives are expensive—drive to town to pick it up (costs farmers time and money) or pay someone else to deliver it (can be very expensive).

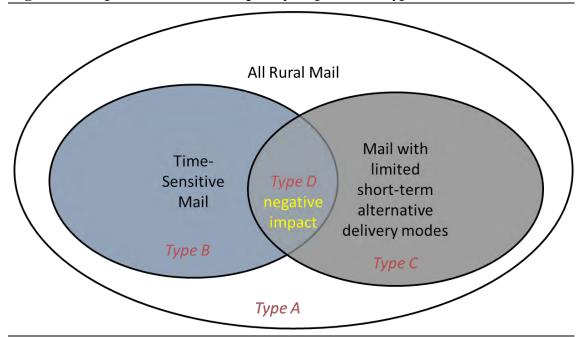


Figure 3.1: Impact of Reduced Frequency Depends on Type of Mail

Table 3.1 analyses each of the five categories of mail identified in section 2.2, to determine whether they are time sensitive and whether they have viable alternatives.

Mail Category	Is this time sensitive for the sender or receiver?	Is there an alternative short-term delivery option?	Impact of waiting one more day for delivery
Personal Communication	Sometimes (birthday card)	Telephone, mobile phone, email, social media, such as Facebook and Twitter.	Negligible (Type A and B)
Transactional mail	Yes (bill payments)	More convenient, cheaper, and more frequent alternatives, such as secure company internet portals, and emails.	Negligible (Type A and B)
Promotional mail	Sometimes (time bound sale / promotion)	Online advertising, radio advertising, TV advertising, billboards, email mailing lists, Facebook groups/ events	Negligible (Type A and B)
Magazines / Newspapers	Yes (weekly magazines and daily newspapers mean content becomes old)	Easy and cheap to access most news content online. Harder to access magazine content online. Alternatives including buying from a bookshop /dairy on days the mail is not delivered	Moderate (Type A and B)

Table 3.1: Alternatives to Each Mail Category

Mail Category	Is this time sensitive for the sender or receiver?	Is there an alternative short-term delivery option?	Impact of waiting one more day for delivery
Packets and parcels	Sometimes Product might expire (medicines)or product might be needed quickly (to fix an irrigator or tractor)	Physical goods cannot be replaced online. Alternative options for receiving physical goods—delivered by alternative supplier, or picked up in town (expensive alternatives)	Moderate to high (Type C and D)
Other services	Sometimes Product might expire(food, flowers); or product may be needed urgently ( machinery part)	Delivery of other products such as milk, bread, video returns, farm supplies that rural drivers currently tack on to postal services: alternatives include driving to town to purchase supplies directly, asking a neighbour to pick it up when they're in town, or paying other agents to deliver (RD1 / PGG Wrightson / Farmlands / Vet / Milk tankers / fertiliser trucks / feed trucks)	Ranging from Low to high (Type B, C and D)

#### 3.2 Mail Items with Digital Alternatives

Four of the mail categories are relatively easily replaced by new technologies:

- personal communications can be replaced by email
- transactional mail is being replaced by online billing
- promotional mail is part of a growing category, but advertisers have a growing range of options (including online options) and the value of mail advertising may even be enhanced by reduced frequency, <sup>11</sup> and
- newspapers have online alternatives through websites like the Herald and Stuff, with online subscriptions for other newspapers

The use of online alternatives is backed up by numerous studies. A 2010 study commissioned by NZ Post showed the widespread use of the internet for transactional mail (which is estimated to make up [] percent of NZ Post mail volumes). 73 percent of those surveyed in 2010 said they received bills electronically, with an average of 2.6 bills per month.<sup>12</sup> Roughly a third of the 515 people surveyed said they would prefer

<sup>&</sup>lt;sup>11</sup> The relationship between promotional mail and frequency is not clear cut. Advertisers value the physical nature of mail and the longevity of a physical advertisement in the household. But the ability to target a particular day rather than the frequency per se may be the more important attribute for promotional mail. Other operational parameters within Post could have more impact on this than frequency. There is also value in scarcity. A reduced frequency might enhance the scrutiny of mail on the days when it does arrive. This 'relevance' is key to generating value from promotional mail.

<sup>&</sup>lt;sup>12</sup> Presentation for NZ Post developed by The Research Agency "Understanding the opportunity for a Digital Post Network"

to continue to receive bills and statements physically.<sup>13</sup> Figure 3.2 shows the four main reasons why New Zealanders prefer digital mail.



Figure 3.2: Reasons Why Customers Prefer Digital Mail: Survey Results

Source: NZ Post Presentation "Understanding the Opportunity for Digital Post Network" February 2010

These alternatives are only available to customers with internet access. Data from Statistics New Zealand<sup>14</sup> shows that 78 percent of rural households have internet access at home (compared to 81 percent of urban households). For core mail items such as bills, high broadband speed is not necessary. An email with a pdf bill attached is not a transaction requiring high bandwidth. The Government's broadband initiative<sup>15</sup> aims to ensure that 86 percent of rural households have access to broadband at speeds of at least 5 megabits per second by 2015.

Overall, 82 percent of mail (including personal mail, transactional mail and promotional mail) has digital alternatives. However these digital alternatives are only available to 86 percent of rural households. The remaining 14 percent of rural households do not have internet at home for email, online banking or news websites. These people will be negatively affected by a reduction in mail delivery frequency for any mail that is time sensitive.

#### Estimating the proportion of mail that is impacted

NZ Post says that currently only 0.7 percent of all mail volumes are sent as priority next day service. This suggests that only 0.7 percent of personal, transactional and promotional mail is "time sensitive" in that either the sender or the receiver will be negatively affected if it is delivered a day later. So the 14 percent of rural households that do not have internet will be negatively affected by a reduction in delivery frequency for the 0.7 percent of mail items that are time sensitive.

#### 3.3 Time Sensitive Mail with Limited Alternatives

The final two categories of mail include time sensitive items with limited alternatives. Many physical items cannot easily be replaced with digital alternatives. Some of these items are time sensitive for the receiver in that they are needed immediately for farm activities (replacement part for irrigation system), or they expire quickly (food and some medicines).

For senders of parcels and courier items in particular, a delay in delivery affects the willingness of their customers to buy online. If delivery frequency is halved, then half of

 <sup>&</sup>lt;sup>13</sup> Presentation for NZ Post developed by The Research Agency "Understanding the opportunity for a Digital Post Network"
<sup>14</sup>http://www.stats.govt.nz/browse\_for\_stats/industry\_sectors/information\_technology\_and\_communications/HouseholdUseofICT \_HOTP2012.aspx

http://www.med.govt.nz/sectors-industries/technology-communication/fast-broadband/pdf-and-documentslibrary/ultra-fast-broadband-initiative/quarterly-report-1-jan-31-mar-2013.pdf

all items sent through the mail will be delayed by a day. This will have a small but significant impact on the relative competitive position of online channels (or businesses) versus traditional purchasing in person. This would be expected to reduce over time as receivers become accustomed to delivery day frequency and purchase accordingly<sup>16</sup>.

#### Estimating the proportion of mail that is impacted

We know that parcels make up approximately 8.5 percent of current mail and courier<sup>17</sup> volumes to rural addresses. However we do not have complete data on what proportion of parcels sent in New Zealand are time sensitive. Out of the [] million courier parcel items that NZ Post Group has processed in the year to date, between 50% and 60% are sold as overnight (or "time sensitive") items.

Figures for the United States courier market show that in 2011, the same day market was worth US\$8.7 billion out of total courier market of US\$14.5 billion<sup>18</sup>. This suggests that roughly 60 percent of items sent by courier in the United States are time-sensitive from one or other party. Although we do not have complete data for the entire New Zealand market, we have no reason to suggest that the proportion of time sensitive courier items would be significantly different to the United States, and therefore we use that figure for the overall New Zealand market.

#### Estimating the volume of time sensitive items with no alternatives

Time sensitive mail with limited alternatives is concentrated in the parcels category and in items that require next day service. The majority of these items will be courier products. We estimate that, of the 8.5 percent of all mail items that are parcels of one form or another, up to 60 percent of these may be time sensitive to either a sender or receiver. This implies that 4.8 percent of total mail is time sensitive and has no digital alternative

If delivery frequency is reduced from six to three days a week, half of all mail will be delivered one day later than it currently is. In other words, only half of the 4.8 percent of mail that is time sensitive and has no digital alternative will be negatively affected by a halving of delivery frequency. Over time, we would expect senders to become aware of which sending days will result in next day delivery to rural customers, and which sending days will result in a two day delivery. Behavioural change is likely to lead to a change in expectations around the frequency of delivery and a change in purchasing behaviour of sending items. It would also be reasonable to expect that alternative delivery arrangements could be made on non-post days, such as pick up arrangements for courier items.

# 4 What Impact will Reduced Frequency have on the Rural Delivery Model?

If NZ Post cuts delivery from six to three days a week, how will rural delivery drivers respond? To answer this question, we need to think about the costs (section 4.1) and

<sup>&</sup>lt;sup>16</sup> For example with known alternate delivery days a receiver might not choose next day shipping if they know that it cannot be fulfilled. A cheaper option might be chosen as it does not affect the actual delivery day.

<sup>&</sup>lt;sup>17</sup> Courier items are distinguished from mail items in several ways. It is not accurate to think of courier items as being in general a faster delivery method. In many cases the mail service, currently, is as quick to deliver. The requirement and capacity to have a signature from the receiver to verify receipt is a more important differentiator of courier product. This attribute is not impacted directly by frequency. The other important attribute is size; in general a courier service will incorporate a much wider size range for delivery. Postal delivery size is limited by other delivery modes, in particular the postie and the maximum weight capacity that can be carried on foot. The capacity to handle larger items is not impacted by frequency either.

<sup>&</sup>lt;sup>18</sup> http://www.mcaa.com/IndustryResources/IndustryProfile/tabid/186/Default.aspx

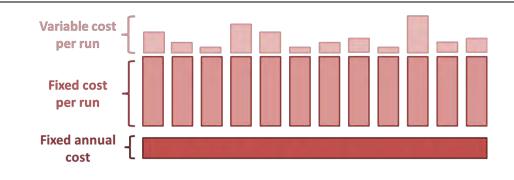
revenues (section 4.2) of rural delivery drivers, and how this changes if the postal service frequency is reduced. In section 4.3, we identify three possible responses by rural drivers to a reduction in frequency.

#### 4.1 Impact on Costs Facing Rural Delivery Drivers

Rural delivery drivers have three sorts of costs (see Figure 4.1):

- Fixed annual costs: cost of owning a van, buying vehicle insurance and earning a minimum full time wage. Although some rural post drivers may be able to take on other part time jobs if they drive fewer days, we assume that many drivers will not continue driving unless they can earn a minimum full time wage of around \$[] a year.
- Fixed cost per run: every time a driver has to drive a rural delivery route, they drive the same distance (same cost of petrol, and wear and tear on the van) irrespective of volume of mail delivered
- Variable cost per run: a small percentage of cost depends on the volume, weight and nature of the items delivered. For example, it costs a driver slightly more in terms of their time and effort to deliver 10 parcels that require signatures than five letters that do not require signatures.

#### Figure 4.1: Current Cost Structure for Rural Delivery Drivers



If postal services are reduced from six to three days a week, the three cost categories will be affected differently (see Figure 4.2):

- Fixed annual costs remain unchanged, as drivers still need to cover the cost of owning a van and buying insurance.
- Fixed cost per run will be unchanged, but if the number of runs is cut from six to three days a week, then the annual fixed costs of delivery runs will halve.
- Variable cost per run depends on mail volumes. It is possible that total annual mail volumes will remain unchanged<sup>19</sup>, but the volume delivered each day doubles as service frequency is halved. In this case, total variable cost will remain unchanged. If people start sending less items via post when delivery frequency reduces, then total variable cost will fall. However because variable cost is such a small fraction of total cost, changes in mail volumes are unlikely to have a major impact on overall cost.

<sup>&</sup>lt;sup>19</sup> Relative to the overall declining forecast for mail volumes in total.

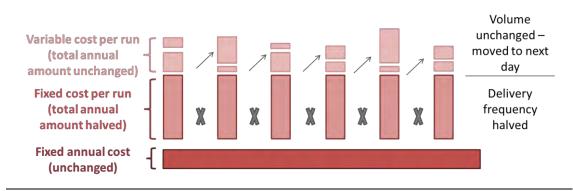


Figure 4.2: Possible Change to Cost Structure if Delivery Frequency Halved

In other words, the only substantive way to reduce the cost of rural delivery is to decrease the number of days of delivery, because drivers can save on fixed costs per run like petrol.

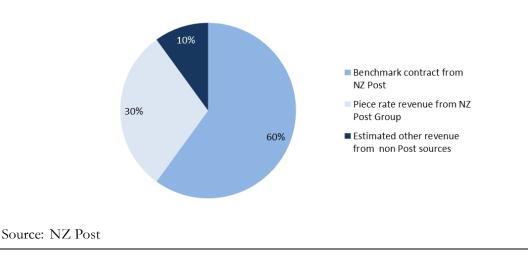
#### 4.2 Impact on Revenues of Rural Delivery Drivers

Rural delivery drivers have four main sources of revenues:

- Roughly [] percent of revenue comes from a "Benchmark contract" with NZ Post to deliver mail. This is made up of vehicle (distance) related payments and labour related payments. The benchmark rate is designed around delivering the Deed requirements
- Roughly [] percent of revenue comes from contracts with other NZ Post Group companies. For example, rural drivers deliver courier items for NZ Post Group owned courier brands like Courier Post, DHL and Pace. Rural drivers also have contracts for newspaper delivery that are managed by NZ Post (Fairfax and APN). In addition a sales commission can be earned from the sale of postal product.
- Contracts with other courier companies to deliver courier items (through Coural or other associations)
- Contract with rural households or businesses to deliver other items such as farm supplies, milk, or rented movies

Estimated revenue percentages for the rural driver network are shown in Figure 4.3 below. The Non Post revenue is highly variable for each driver as the individual circumstances dictate the extent to which they seek additional contracts and revenue. In addition NZ Post does not have visibility over these payments or contracts.





We do not currently have detailed data on the structure of the independent contracts. So we do not know the extent revenues from these contracts contribute to rural driver's fixed costs on a per run basis. It is possible, and in many cases likely according to Post, that all the rural driver's fixed costs are covered by the NZ Post contract, so that other users (courier companies and rural households) only have to cover the variable cost of their extra deliveries (see Figure 4.4).

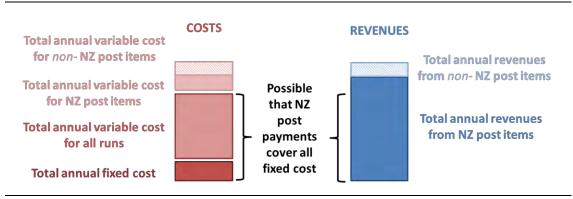


Figure 4.4: Possible that NZ Post Payments Currently Cover All Fixed Costs

#### 4.3 Three Possible Responses by Rural Drivers

We see three broad options for how rural drivers will respond if NZ Post cuts the frequency of delivery from six to three days a week (see Figure 4.5):

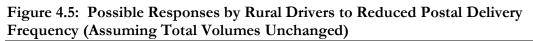
- **Carry on** delivering non-post items six days a week, with post items delivered three days a week. This would minimise the negative impact on rural customers from a reduction in postal services. However rural drivers will only continue driving six days a week if they can cover their costs. This would require at least one of the following: increased payment from NZ post per run, increased payment from other senders (advertising firms and courier companies) or increased payment from receivers. It would also depend on the opportunity cost for each driver for each round.
- **Cut back** delivery of both post and non-post items to three days a week. Rural drivers will cut back to three days a week to save on the fixed costs per

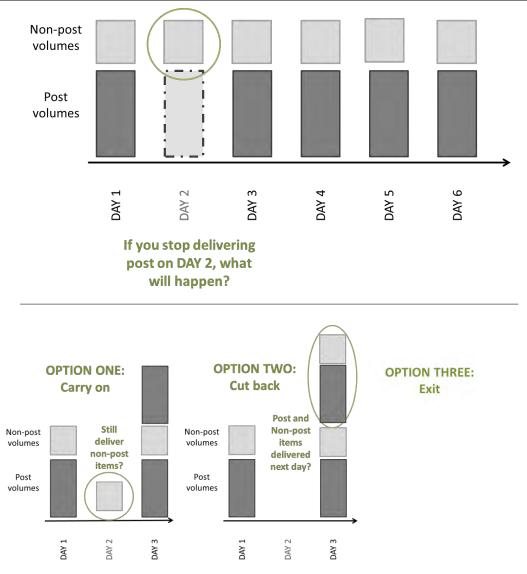
run if they cannot recoup sufficient revenue from other sources to warrant continuing to drive six days a week.

• Exit from the business, as revenues are no longer sufficient to cover costs. In the extreme case, if rural drivers cannot gain sufficient revenues from all sources to cover their costs, they will exit the rural delivery business. In other words, if NZ Post stops underwriting other services by covering fixed costs, and rural customers are not willing to pick up the tab for the cost of the services, the rural delivery business will no longer be profitable for drivers. Clearly NZ Post cannot allow this to happen, because it will prevent NZ Post from meeting the Deed of Understanding. Section 5.1 explores how this affects NZ Post's ability to negotiate a new benchmark contract.

These three options all assume that post product will not be available on non-delivery days as collection and processing facilities will not operate. Post volume will most likely only be available three days a week.

For the sake of simplicity, these three options assume that the total volumes of post and non-post items do not change (see Figure 4.5). It is entirely possible that total post volumes drop as customers see postal services as less value if they are only delivered three days a week. It is also possible that customers start sending more items via courier once postal services decline, thus increasing the volume of non-post items. However, the same three broad responses still apply if total volumes change.





The question is what proportion, if any, of rural drivers would continue to delivery non-post items six days a week.

# 5 Which Rural Delivery Points Will Drop to 3 Days for Non-post Items?

There are three steps to determining how many days of non-post service each rural delivery customer will receive:

- Step one: NZ Post has to negotiate a new contract with rural drivers for delivering postal items three days a week (section 5.1)
- Step two: given the price rural drivers receive from NZ Post, rural drivers will look to see whether they can get paid more by other contracts to continue six day a week delivery (section 5.2).

• Step three: once rural drivers have determined how many days a week they drive, other private providers will look at whether it is profitable for them to fill the gap (section 5.3).

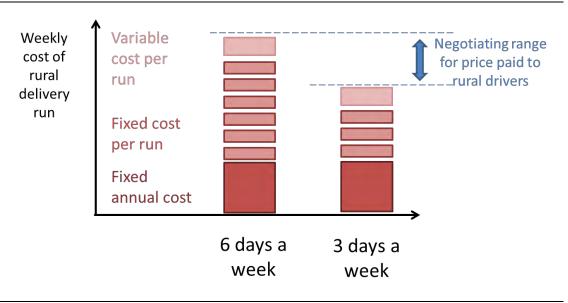
As we saw in Section 2.2, the cost of each rural delivery point differs. We expect that different options will emerge for different cost bands. We present our expectations of the most likely outcome for each cost band in Section 5.4.

We also think that there will be a complicated overlay of individual circumstances that will lead to variable outcomes for each run (in the absence of mandated outcomes). Nevertheless it is possible to generalise by cost groups to some extent.

#### 5.1 NZ Post Response: Negotiating a New Pricing Structure

NZ Post cannot afford for rural drivers to exit the market without replacement, as NZ Post is bound by the Deed of Understanding to provide postal services for a certain number of days a week. We assume that a three day requirement is the new minimum for this analysis. This means that NZ Post will need to negotiate with rural drivers to determine what contract structure makes rural delivery viable with a three day standard.

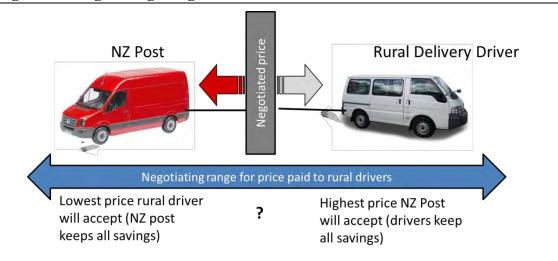
Figure 5.1 shows the cost savings if rural drivers reduce from six days a week to three days a week. As explained in section 4.1, the only saving is the reduction in fixed costs per run like fuel (fixed annual amounts are unchanged, and volume payments are such a small cost that they contribute little to savings).



#### Figure 5.1: Negotiating Range for Price Paid to Rural Drivers

Negotiations on payment of rural delivery drivers could fall anywhere between a minimum of the current price per unit (NZ post keeps all the savings identified in Figure 5.1), to a maximum of the current revenue divided by the new (reduced) number of units (NZ post makes no savings)<sup>20</sup>

<sup>&</sup>lt;sup>20</sup> Post making savings in the rural delivery runs themselves is not necessarily the entire object for Post. The savings that are made in other areas of the network and in particular delivery by postie and mail processing will drive the overall outcome for service standard choice. This will be tempered by the impact that service standard has on revenue.



#### Figure 5.2: Negotiating Range for Price Paid to Rural Drivers

We can assume that in the situation where drivers seek to exit, Post can tender for a new contractor. Post will need to cover the fixed annual costs of the route to achieve the Deed standard. In reality, it is usually the case that driver's sell their run to a new driver that they have found themselves, when they seek to exit. This is because there is often goodwill equity in the business relationships that the driver has built for non-post business.

If the fixed annual costs of the run are covered it becomes more likely that the driver will continue to drive six, or more likely five, days per week.

#### Expected outcome

The most likely outcome on average will be a payment level for the benchmark contract that exceeds the per-run amount currently but does not fully compensate drivers entirely for their lost revenue.

#### 5.2 Rural Customer Response: Negotiating Delivery Fees

Once drivers have agreed on a contract with NZ Post, they will look to renegotiate their other contracts with courier companies and rural customers.

While NZ Post is prevented from charging a delivery fee by the Deed, rural drivers may attempt to negotiate a delivery fee privately with senders or receivers to cover the cost of delivery no longer underwritten by NZ Post. Rural customers may be willing to pay a delivery fee for courier items or newspapers if they value receiving these items enough on the non-postal service days. This will be a case by case evaluation for each delivery round. A driver would not undertake the fixed cost of a round without a sufficient amount of revenue in total to cover the entire round.

In reality it will be difficult, but not impossible, for rural drivers to independently negotiate for a general delivery fee from receivers. A collective effort would be required that obtained a quorum of customers to justify the run.

#### 5.3 Alternative Providers

If rural postal drivers reduce service to three days a week, then there is likely to be an unmet demand for delivery of items such as courier parcels and newspapers on the days that rural postal drivers do not drive. This section investigates the potential for private providers to meet this demand. Alternative provision will minimise the negative impact

on rural customers from a reduction in delivery frequency, as they can still receive the items that are most important to them through other channels.

So which private providers are well placed to fill the gap if rural drivers reduce delivery from six to three days a week? We see two main contenders:

- Farm supply companies
- Courier companies

Under the subheadings below, we explore the potential of each of these providers to fill the gap left by rural drivers.

#### Farm supply companies already have capability for rural delivery

There are three main farm supply companies with major networks across New Zealand. They each have a different sort of platform they use to deliver currently. Between the three main companies, there are well over 200 stores across the country. Most stores are open six days a week.

In a 2009 survey, rural customers seemed open to this alternative at least for sending. One rural customer from the Waikato comments "I go into RD1 most days, so if I could just drop my mail in there and have them put stamps on, send it off and invoice me with the rest, it'd be good".<sup>21</sup>

Table 5.1 compares the ability of the three main farm supply companies to expand their delivery networks. PGG Wrightson seems best placed to expand rural deliveries, as they already have a rural delivery serviced called "Onto Farm". In contrast, Farmlands / CRT and RD1 both have specific delivery partners for some products (like fuel and stock feed). It is likely to be harder to convince partner transport firms delivering diesel or palm kernel feed to pick up and deliver courier items or newspapers.

<sup>&</sup>lt;sup>21</sup> Presentation by the Research Agency "Future delivery programme customer research: Exploring potential opportunities for future network changes" December 2009

Name	Number of stores	Ownership	Current Delivery Platform
Farmlands	45 North Island, 31 South Island	Customer owned cooperative	Farmlands and CRT have an on Farm Fuel supply network using bulk fuel delivery partners. <sup>22</sup>
RD1	65 nation wide	Owned by Fonterra	RD1 allows you to order products online, but they can only be delivered and picked up from one of their stores. RD1 partners with local transport companies for bulk deliveries. Ie in North Otago, they use Temuka Transport for palm kernel. <sup>23</sup>
PGG Wrightson	100 +	Listed company	Have a rural delivery service called Onto Farm: "With Onto Farm you can get all the supplies you need delivered directly to your farm simply and efficiently" <sup>24</sup> It operates from 7:30am-8pm Monday to Friday and 7:30am – 1pm on Saturday. Orders can be tracked.

Table 5.1: Ability of Three main Farm Supply Companies to Expand Deliveries

Overall, the likelihood of these providers entering the courier market is low. Their existing business model is for infrequent and high value deliveries. A frequent service of low value deliveries requires a quite different cost structure. Average costs for this type of delivery from these providers would be high. They do however provide the infrastructure that might be convenient as a sending point and as a pick up point should mail service become so infrequent that delivery is untenable.

#### Courier companies already deliver to some urban fringe areas

Currently courier companies "cherry pick" which items they will deliver using their drivers, and which items they will pay rural drivers to deliver. So they are already taking advantage of the cheaper-to-serve urban fringe areas with higher population density.

In higher density urban fringe areas there is the potential for courier companies to maintain a six day service through extending their own range of delivery rather than contracting through Coural. This would be a price negotiation between the rural drivers and the existing courier drivers and courier companies. It is reasonable to assume that they have already optimised their own self delivery options and this would only expand their delivery network if senders or receivers were willing to pay more for the door-to-door service.

## 5.4 Viability of Alternative Providers Depends on Customer Density

Alternative providers will serve customers when it is profitable. Typically, the customer in postal and courier markets is the sender as the overwhelming majority of sending costs

<sup>&</sup>lt;sup>22</sup> http://www.farmlands.co.nz/farmlands-card/onfarmfuel.html

<sup>&</sup>lt;sup>23</sup> http://www.rd1.com/rd1-nutrition/bulk-supplies-getting-the-right-delivery

<sup>&</sup>lt;sup>24</sup> http://pggwrightson.co.nz/OntoFarm

are paid by senders (exceptions include PO Box holders who pay a portion of the delivery cost). The cost per delivery, however, depends mostly on the distance per delivery and the density of customers that the provider delivers to. A high density of receivers reduces the average cost per delivery. A high volume of mail or packages reduces average cost also. Therefore it is much more likely that higher density areas with more packages to deliver will be viable for alternative delivery providers. These receivers are likely to be identified by the average cost per delivery point and per run of incumbent drivers.

It might be more likely that receivers that are more expensive to serve are also willing to pay for delivery to their house, because the cost of their alternative (driving to town) is also higher than the cheaper to serve customers. However, the ability of drivers other than incumbent rural drivers to organise a private delivery fee from receivers is low. The incumbent drivers are in the best position to do this if it is viable. Therefore we think it is safe to assume that private providers will be more interested in the "low hanging fruit". This means delivering to customers on urban fringes who are cheaper to add to existing courier driver's areas than customers that live in remote areas.

Figure 5.1 summarises our view on the likely delivery frequency for three cost bands of rural delivery points:

- Carry on with six days a week for the 10 percent of delivery points with an average cost below \$75 a year. For these delivery points, we think that there will be the possibility of competition between rural drivers and courier companies, and other private services providers to serve these reasonably cheap customers.
- Case by case negotiated outcome for the 62 percent of delivery points with an average cost of services of \$75-\$150 a year. For roughly two thirds of customers, we believe that the outcome depends on what each rural driver is willing to accept, what each rural customer is willing to pay, and what scope for other private providers such as farm supply companies or courier drivers exists. In other words, private negotiations will determine whether these customers receive mail three, four, five or six days a week. We estimate that, given the difficulty in negotiating delivery fees with enough customers on a run to make it profitable, only one in six runs are likely to negotiate continued six day a week services.
- Cut back to three days a week for the 28 percent of delivery points with an average cost of service of more than \$150 a year. For these hard-to-reach customers, we do not believe that rural drivers, or rivals, will find it profitable to continue delivering non-postal items six days a week. Even if rural customers are willing to pay a delivery fee, we do not believe it will be high enough to cover the extra costs of fuel to rural drivers to make the delivery run profitable.

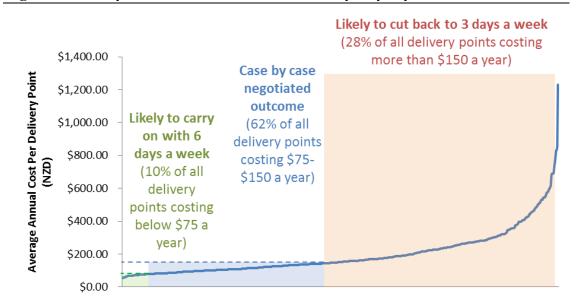


Figure 5.3: Likely Outcome for Number of Delivery Days by Cost of Service

Individual Rural Delivery Runs ordered by Average Cost per Delivery Point

### 6 What is the Likely Impact on Rural Customers from a Reduction in Post Delivery Frequency?

Four main conclusions fall out of our analysis:

- Reduced frequency will have a limited impact for traditional mail items: The vast majority of mail items has readily available substitutes, and as a result are declining in use anyway. Most mail items are not time sensitive in so far as neither the sender nor receiver worries too much if it is delivered one day later. For the portion of mail that is time sensitive, there are viable alternative forms of communication: telephone, email, online bill payments, news websites. Digital alternatives are not available for the 14 percent of rural households that do not have internet at home. However NZ Post data shows that only 0.7 percent of personal, transactional and promotional mail is currently sent as priority next-day delivery. In other words, less than one percent of traditional mail items are time sensitive, in that the sender or receiver will be negatively affected if they are delivered one day later.
- Reduced frequency will have a bigger impact on non-mail items: Rural postal drivers also deliver other services like courier items, that are often time sensitive and have limited alternative delivery modes. They also pick up mail from rural customers to deliver back to post depots. NZ Post has little data on these extra services that rural drivers negotiate directly with their rural customers. Because we have little data on this, it is hard to evaluate the impact of a reduction in the frequency of these sort of services.
- Not all drivers will cut services back to three days a week. Even if the postal contract is reduced to three days a week, there are three negotiation points that determine how many days a week rural drivers will deliver non-post items:

- Firstly: NZ Post has to negotiate a new contract with rural drivers for three day delivery. Rural drivers may be unwilling to accept much of a cut in total revenue before they exit the market. This might increase the daily rate and reduce effective savings to Post.
- Secondly: given the price rural drivers receive; they will look to see whether they can get paid more by other revenue resources to continue 6 day delivery.
- Finally: once rural drivers have determined how many days a week they drive, other private providers will look at whether it is profitable for them to fill the gap.
- The delivery frequency most likely depends on the cost of service.
  - We think that drivers are highly likely to cut back to three days a week for the most expensive rural delivery points (above \$150 a year). There will be very little chance of any other private firms serving rural customers in this cost bracket.
  - In urban fringe areas, with annual cost per delivery point below \$75, we think that either customers might pay a small delivery fee to rural drivers to keep them driving six (or five) days a week, or other service providers like courier companies will find it profitable to serve them either six days a week. Outcomes here depend on the individual circumstances of the driver and the nature of the courier market in the locality.
  - In the in-between areas \$75-\$150 a year, service levels are likely to depend on the negotiations between individual rural delivery drivers and their customers. The circumstances of individual drivers will dictate the service offering. Some rural delivery drivers may be happy to cut to three days and take on another job, while other drivers would like to continue driving six days a week for a small delivery fee.

So what is the overall impact on rural customers of a reduction in delivery frequency? We have seen in the previous sections that there are a number of mitigating factors meaning that only a portion of mail items will be negatively affected by a reduction in delivery frequency.

Figure 6.1 outlines the four steps to determining the proportion of items affected by a reduced delivery frequency. To be affected by reduced delivery frequency, the following four factors must be present:

- Item does not have a digital alternative. We estimate that around 8 percent of items do not have a digital alternative (they are physical items that must be delivered or picked up in person). The government aims to have 86 percent of rural households connected to broadband by 2015. The remaining 14 percent of rural households that do not have internet at home will be negatively affected by a reduction in delivery frequency.
- Item is time sensitive. Data shows that less than one percent of traditional mail items are currently sent by fast post, indicating that very few personal letters, bills or promotional mail is time sensitive. We estimate that roughly 60 percent of courier items are time sensitive based on the size of the next-day courier market as a portion of the total American courier market. So roughly five percent of items have no digital alternative and are time sensitive.

- Item is due to be delivered on a day without postal service. If postal delivery is cut from six to three days, half of all items sent will be delivered one day later than currently. So 2.4 percent of items have no digital alternative, are time sensitive and are delivered a day later.
- Delivery point is in an area with no alternative delivery provider. We estimate that 20 percent of all delivery points are likely to continue to receive six day a week service for non-post items like courier packages and newspapers. So 1.9 percent of items have no digital alternative, are time sensitive, are delivered a day later and have no alternative delivery mechanism.

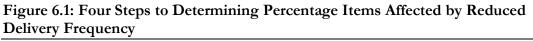
#### We expect customers to change their behaviour to mitigate negative effects

If mail frequency is reduced overnight, we expect that 1.9 percent of items will be negatively affected. However if this reduction in service happens over time, giving customers sufficient warning, we expect senders and receivers to change their behaviour to mitigate the negative effects over time. For example:

- from the senders side, you will no longer purchase next day courier services for rural addresses, as you know items are only delivered every second day.
- from the receivers side, you may develop alternative delivery relationships whereby existing pick up behaviour can be used (e.g. leave at rural supply shops to be picked up on the days visits are made to town)

We can also imagine that a well-managed reduction in service will allow customers' expectations to change over time. For example, over time, both senders and receivers will develop an enhanced awareness of delivery dates and reset expectations. There is also a potential for new rural delivery sending products suited to rural behaviours.

It is hard to estimate how effective these mitigation measures will be, however we imagine the residual negative impact will be small.



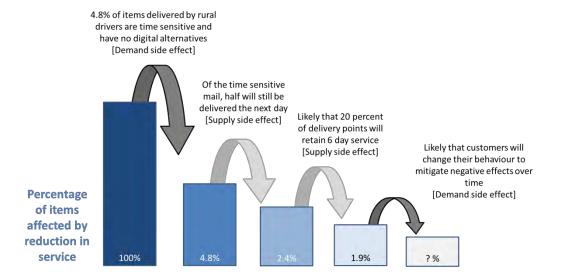


Figure 6.2 translates the proportion of mail that is negatively affected into mail volumes. This shows that each year around 2 million mail and courier items are likely to be negatively affected by a halving of delivery frequency. With 230,000 rural delivery points,

this equates to an average of around 11 items that are negatively affected per delivery point per year.

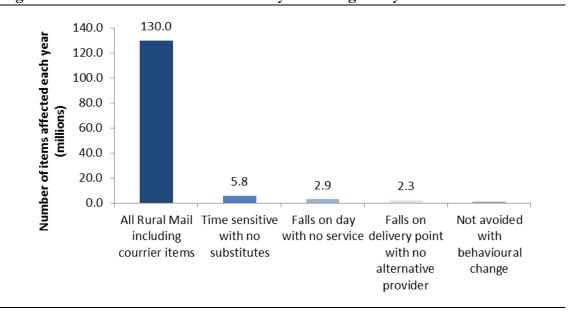


Figure 6.2: Two Million Mail Items Likely to be Negatively Affected Each Year



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