SUMMARY

- The rising cost of fuel for motor vehicles concerned just over 85 percent of respondents. To mitigate the effect of the continual price increases they have made a variety of changes to their travel habits. These include making fewer trips, changing to a more fuel efficient vehicle and considering finding a job closer to where they live.

- The provision of a regular public bus service was considered important by respondents with suggestions for a “late night bus on the weekends” and support for a “good start which can be increased if required”.

- A public transport system is seen as a vital link for the town to Christchurch particularly as the majority of households have at least one person working in Christchurch or attending education facilities.

- The link between patronage and level of service cannot be underestimated. Removing the barriers to the use of public transport needs to be a combined effort from service providers, infrastructure providers and the use of incentives to make the use of public transport more attractive.

- As the Council's Woodend Pegasus Area Strategy discusses, the Council can only advocate for good public transport. Decisions with respect to this are the responsibility of the Regional Council, Environment Canterbury. The link between the level of use and the level of service cannot be underestimated and it is up to the community to ensure that the level of patronage ensures a continuation and/or expansion of the service.

- On-going monitoring of the patronage of the public transport service and the number of vehicle movements across the Waimakariri River Bridge will be useful to inform transport strategies being developed for the greater Christchurch area.
1 INTRODUCTION

This occasional paper presents the results of the Pegasus Community Issues Survey with regard to the potential of public transport for people living in Pegasus, barriers to the use of public transport and to identify the uptake of the current service.

1.1 The purpose of the survey

The wider Pegasus Community Issues Survey was designed to find out what people living at Pegasus thought about various aspects of their life at Pegasus and to contribute to the Council’s long-term Woodend Pegasus Development Strategy.

The survey was hand delivered to all residents of Pegasus. Where a house was identified on a property with an owner at another address the survey was delivered to “The Householder”. This ensured that information was gained from all residents at Pegasus whether they were property owners or renting their homes.

In total 243 surveys were distributed and 136 (56%) were returned to Council for analysis. Because of the relatively high percentage of questionnaires not returned, there is a risk of “non-response bias” in the results reported, i.e. the households that chose not to respond may have views that differ from those that chose to return their questionnaires.

1.2 Presentation of results

Where appropriate, results from this survey are compared with the 2006 Census and the Council’s Residential 2 Subdivision Report completed in June 2012. The Residential 2 Zone survey was conducted in mid-2011. The subdivisions surveyed, Moorcroft in Kaiapoi and East Rangiora, Oxford Park and The Oaks in Rangiora, have been developed over a similar time period as Pegasus and it was thought useful to compare the respondents across these subdivisions.

1.3 Population Growth

The Waimakariri District is one of the fastest growing districts in New Zealand. This growth has increased since the Canterbury earthquakes in September 2010 and February 2011.

Figure 1: Population and projections

![Population and projections graph](image-url)

The township of Pegasus has experienced significant growth with building consents for new dwellings increasing from 37 for the year ending June 2008, to 187 for the year ending June 2013. At the time of writing this report, the balance of Pegasus available for future development could accommodate 1,100 more households (potentially 2,750 more people).

If these potential residents show the same characteristics as the survey respondent population, it could reasonably be expected that approximately 77 percent of these households would have members working in Christchurch.

The increasing number of households in Pegasus means there is the potential for many more people commuting to Christchurch for employment and schooling.

1.4 Pegasus town development

Pegasus was a new town developed in 2005, the design of which embraced the concept of new urbanism. This is an urban design movement promoting walkable neighbourhoods, connectivity, mixed use and diversity, mixed housing, quality architecture and urban design, traditional neighbourhood structure, increased density, green transportation, sustainability and quality of life.¹

The design of Pegasus encapsulates this design with enhanced pedestrian access and connectivity with narrow, slow local roads to enhance the pedestrian movement around the town.

In 2006 the Infinity Investment Group circulated questionnaires to the 2006 purchasers of sections at Pegasus. This questionnaire, developed by Infinity and the Council, covered a wide range of issues of relevance for those planning the development. At this early stage, 78 percent of respondents indicated they would be commuting to Christchurch with only 40 percent anticipating they would use public transport. Travelling to Christchurch was cited by 48 percent of respondents as their greatest concern about living at Pegasus.

1.5 Travel to and from Pegasus

In July 2012 Environment Canterbury consulted on the Draft Canterbury Regional Public Transport Plan 2012. The plan included a proposal for an urban bus service for Pegasus/Waikuku Beach via Woodend, this would be a new, purpose specific, peak only service between Waikuku Beach, Pegasus, Kaiapoi and the central city. Associated with this service was a new link service connecting with route 1 at Kaiapoi for passengers travelling to Christchurch. The Canterbury Regional Public Transport Plan 2012 was adopted in September 2012 and the service to/from Pegasus started in December 2012.

In his paper to the Chartered Institute of Logistics and Transport (UK) in 2003, Derek Halden discussed a survey titled “Barriers to Using Public Transport”². The results of this survey showed that there were three main factors contributing to the barriers that need to be taken into account:

- “Hard” factors such as, costs, time, reliability, car ownership
- “Soft” factors such as information, comfort and effort required
- “Complimentary” factors including non-transport factors, time budgets, need to convey others and weather.

¹ http://www.newurbanism.org/newurbanism/principles.html
² http://www.ciltscotland.com/arcmr230903.php
He suggested that to provide “bridges between these factors and public transport, it is necessary to provide improvements to alternatives, make car travel less attractive, address all the barriers and recognise trade-offs”.

The key barriers identified by the research (in Scotland) for bus travel were: travel time, security, waiting times and information. This research went on to suggest that the bus improvements made that best encouraged use of this form of transport were:

- Improved information, including electronic and published information at bus stops;
- Reduced journey times;
- CCTV on buses and at bus stops;
- New payment methods and ticketing.

Finally, he concluded that “improved use of public transport will require more of a partnership approach between service providers and infrastructure providers, together with better incentives to make the use of buses more attractive”.

Respondents to the Pegasus Community Issues Survey indicate that although public transport is identified as an essential service for Pegasus there are a number of issues that preclude the use of this which include:

- Shift work – service starting too late and finishing too early;
- Not a large enough population – service not viable;
- Timeliness – will not use it if it takes hours to get to the destination or have to take more than one bus;
- Frequency – needs to fit with working hours.

The two hourly service is perceived as inadequate for workers with a suggestion that “it needs to start early enough for workers to get into the city and late enough for them to return. Maybe 1 hour frequency in the morning and at tea-time?”

The rising cost of fuel may encourage more use of the public transport system especially as businesses return to the Christchurch CBD although a significant barrier will still be the necessity of catching more than one bus to a destination.

These comments would seem to support the findings by Derek Halden and the research undertaken in Scotland regarding the barriers to the use of public transport and would suggest his conclusion regarding the partnership approach is similarly valid.

2 PEOPLE IN THE PAID WORKFORCE

Respondents were asked for information regarding household members who were involved in the paid workforce. This information was provided by 105 (77.2%) of households, and of these:

<table>
<thead>
<tr>
<th>Number</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>21.9%</td>
<td>had one person in the paid workforce</td>
</tr>
<tr>
<td>70</td>
<td>66.7%</td>
<td>had two people in the paid workforce</td>
</tr>
<tr>
<td>12</td>
<td>11.4%</td>
<td>had three people in the paid workforce</td>
</tr>
</tbody>
</table>

In all there were 199 people or 67 percent of the 297 people from respondent households 15 years and over who indicated that they were either working full-time or part-time. This is higher than the 61 percent workforce participation recorded in the 2012 Residential 2 Survey but
similar to the 66.5 percent of people who indicated they worked full or part-time in the 2006 Census for the District.

2.1 Place of work for members of respondent households in the paid workforce

Respondents were asked to indicate where they worked and Table 1 shows their response.

<table>
<thead>
<tr>
<th>Place of work</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christchurch</td>
<td>145</td>
<td>72.9</td>
</tr>
<tr>
<td>Waimakariri District</td>
<td>35</td>
<td>17.6</td>
</tr>
<tr>
<td>Mobile workers, including those working in both Christchurch City and the Waimakariri District</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>Other, including neighbouring territorial authority areas or further afield</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>No response</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>199</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The above table shows that a significantly higher percent of the members of respondent households in paid work are working in Christchurch (73%) compared with those working in the Waimakariri District (18%). The classification “mobile worker” is not one that is used for official workplace statistics, but is useful when analysing the District’s workforce to identify people who do not have a single place of work, or who work from home across a relatively wide area. For example, some of those classified as mobile workers were working across Canterbury and into the West Coast or servicing the whole South Island. They were often involved in the construction industry, administration, sales or providing technical services.

3 PRIVATE AND PUBLIC TRANSPORT

3.1 Price of petrol and/or diesel

Respondents were asked how concerned they were with the price of petrol and/or diesel and the following figures indicate their response:

<table>
<thead>
<tr>
<th>Level of concern regarding the price of petrol and/or diesel</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very concerned</td>
<td>58</td>
<td>42.6</td>
</tr>
<tr>
<td>Quite concerned</td>
<td>57</td>
<td>41.9</td>
</tr>
<tr>
<td>Not very concerned</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Not at all concerned</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>No opinion</td>
<td>6</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The number of respondent households expressing concern regarding the price of petrol and/or diesel was high with 115 of the 136 (84.5%) households indicating that this was a worry for them. Just 15 households indicated they did not have any concerns around the increasing price of fuel and only six households had no opinion.
To mitigate the effect of continual price increases in fuel respondent households were asked to indicate whether they had made or were considering making changes to their travel habits.

**Figure 2: Response to the increasing price of fuel**

![Response to the increasing price of fuel](image)

Making fewer trips was the most popular option for respondents trying to limit the impact of fuel price increases with over 43 percent being 'quite likely' to undertake this along with the 41 percent who report that they already do this. Of the 76 respondents who have not already made a decision to make fewer trips, 51.3 percent indicated that they were likely to do so.

A slightly smaller number of respondents indicate they would be likely to change to a more fuel efficient vehicle with 24 percent indicating they had already done this.

Moving closer to where members of the household work was not seen as a 'very likely' option for over 66 percent of respondents with only 10 percent indicating that they may consider this.

Finding a job closer to where they live was an option considered by 29 percent of respondents but just over 40 percent indicate that this is a 'very unlikely' option for them.

Making arrangements to work from home similarly had 43 percent of respondents indicating that this was 'very unlikely' and 19 percent considering this option.

Joining a car pool or taking public transport was not considered by respondents to be 'very likely' and it should be noted that this result is influenced by the greater number (35%) who did not respond to this question.
3.2 Public bus service

Respondents were invited to indicate how important they felt a public bus service is for Pegasus and were asked to comment on the proposal to institute a two hourly service to Pegasus. The following figure indicates their response:

**Figure 3: Bus service to Pegasus**

A regular bus service is considered important by respondents to this survey with 87 percent indicating that this service was either ‘quite’ or ‘very’ important. Some respondents qualified their support by suggesting that this service will be very useful “….but only if it doesn't take an hour to get to Christchurch. Late night bus on weekends would be fantastic.” Another suggests that this “…is a good start and can be increased if required.”

Respondents also raised the possibility of the bus service being used by residents at Pegasus who have retired or who are unable to drive. Those who have teenagers attending school in Christchurch also indicated that they would use the service especially for the return trip from Christchurch to Pegasus.

The following figure indicates the level of patronage of the Pegasus Bus service showing the total number of boardings (per month) at Pegasus from March 2013 to March 2014 (source: Environment Canterbury). The capacity of this service is 20,618 seats per month.

For the calendar year March 2013 to March 2014, patronage of this service has been less than two percent of capacity. The highest level of patronage was in March 2013 at 1.9 percent and the lowest was in April 2013 and January 2014 at 1.3 percent.
As per timetable

<table>
<thead>
<tr>
<th>Route 951</th>
<th>Monday - Friday</th>
<th>Sat</th>
<th>Sun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pegasus to Kaiapoi</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>2379</td>
</tr>
<tr>
<td>Kaiapoi to Pegasus</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>2379</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4758 per week</td>
</tr>
</tbody>
</table>

Month 20618

**Figure 4: Total public transport boardings at Pegasus**

![Graph showing total public transport boardings at Pegasus from March 2013 to March 2014]

Source: Environment Canterbury, Contracts Administrator – Passenger Services

Although respondents are enthusiastic about the possibility of public transport being provided for Pegasus, Commissioners at recent Environment Canterbury hearings\(^3\) expressed concern about the gap between people’s views of the importance of having access to public transport services and the use that is being made of these services. This link between use and level of service cannot be disregarded. It will be the level of patronage that warrants the continuation and/or expansion of services.

### 3.3 Access to Christchurch

With 73 percent of respondent households having one person or more working in Christchurch access to the city is important. The New Zealand Transport Agency reports in its “Traffic Volumes Monthly Report June 2013”\(^4\) that monthly daily average traffic counts at the Waimakariri Bridge have increased by 4 percent for the same month in 2012, with 40,312 all vehicle movements compared with 38,598 in 2012.

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\(^3\) Waimakariri District Council’s draft Woodend Pegasus Area Strategy

This graph indicates the daily average traffic counts by month across the Waimakariri Bridge, both north and south-bound. Seasonal fluctuations are seen which closely align with the school holiday periods particularly noticeable in June and December.

The higher number of south bound movements could be attributed to the movement of heavy traffic from Picton through Christchurch and to points further south along State Highway 1.

The growth continuing north of the Waimakariri River and in particular around Kaiapoi, Pegasus and Woodend will lead to a further increase in the amount of traffic using the northern motorway into Christchurch. This traffic will not only be into the city itself but also south-west to the industrial areas and the airport.