Taylor Baines

Ashburton Second Bridge - Notice of Requirement

Social Impact Assessment of the preferred route

prepared for
Ashburton District Council
by

Taylor Baines & Associates

September 2013

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1 INTRODUCTION

1.1 Stages leading up to this Notice of Requirement for land designation

The Ashburton Transport Study (2006-2008)

In 2005 Transit New Zealand (now the New Zealand Transport Agency (NZTA)) and Ashburton District Council commissioned Opus to identify present and future transportation demands within the Ashburton urban area through to 2026, and to recommend measures to optimise the performance of the land transport system[1]. This work resulted in the Ashburton Transport Study.

The Ashburton Transport Study identified the main future issue to be the ability of State Highway 1 to cope with increasing traffic volumes, through the Ashburton urban area, particularly at the Ashburton River Bridge.

> *"For many years concerns have been raised by the community regarding the existing bridge and nearby section of State Highway 1. Consultation undertaken for the Ashburton Transportation Study 2008 confirmed these concerns which included:*
>
> *- safety issues accessing the state highway,*
> *- congestion,*
> *- future growth in Tinwald and increasing traffic numbers,*
> *- pedestrian and cycling issues, and*
> *- land transport route security."*[2]

> *"The Transportation Study included traffic counts, travel time surveys and growth projections. The result of this study confirmed the issues and community concerns, and highlighted that only about one third of traffic on the existing bridge is inter-district traffic travelling on the state highway through Ashburton. The study concluded that a new bridge that assisted travel between Tinwald and Ashburton would be more effective than one which assisted inter-district travel. The study recommended a new bridge from the end of Chalmers Avenue across the Ashburton River to Tinwald."*[3] *(emphasis added)*

It also identified route security issues for all users should the existing bridge be closed for any reason, including isolated incidents on the bridge or wider natural disasters. Amongst the recommendations to the Council arising from the Ashburton Transport Study was a

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1 Opus, 2010. Additional Investigation Report, January 2010. p.5

2 Second bridge consultation Newsletter #1, August 2010.

3 Ibid.

recommendation to provide for a second Ashburton River bridge. The Council subsequently adopted these recommendations.

The Issues & Options Report (2009-2010)

An Issues and Options Report for a second bridge across the Ashburton River was prepared by Opus in January 2010. This report confirmed that the most significant issues for the existing bridge were its capacity to carry the future traffic demand, and route security issues should the bridge be closed due to an incident on the bridge or a wider event such as a flood or earthquake.

The Issues & Options work included a comparative, multi-criteria assessment of twelve options for a second bridge route encompassing a broad range of options, from by-passes to expanding the existing bridge to four lanes[4]. This comparative assessment identified two options which best met the criteria[5]. Both options involved a second bridge in line with Chalmers Avenue on the northern bank (Chalmers Avenue to east of Tinwald and Chalmers Avenue to Grove Street). However, the Council decided to nominate Chalmers Avenue to Grove Street as the preferred option at that time, with Chalmers Avenue to east of Tinwald as a back-up option.

Feedback from public consultation[6] following the release of the Issues & Options Report indicated a high level of opposition from the Tinwald community to the Chalmers Avenue to Grove Street 'preferred' option, and to a lesser extent to the back-up option. It was evident from a summary of issues raised that this opposition reflected two important themes. Firstly, there was a lack of acceptance by some in the Tinwald community that a critical issue to be addressed by the second bridge was associated with 'local' traffic[7] and not with inter-district traffic passing through Tinwald and Ashburton; hence the interest expressed in alternatives such as a by-pass or a continuing focus on the SH1 corridor[8]. Secondly, concerns were expressed about the adverse social effects on residents of Grove Street likely to result from changing the status of Grove Street within the local roading hierarchy - turning an existing residential street into a 'principal road'.

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4 Opus, 2010. Additional Investigation Report, January 2010. p.5

5 Criteria used: access and mobility; land suitability; engineering-technical; RMA considerations; consistency with policies, plans and strategies; economics; risks; environmental impacts; wider outcomes.

6 Consultation activities including a public meeting in Tinwald, several Community Open Days (in Tinwald and in Ashburton, and a mail out to potentially affected residents. Opus, 2010. Additional Investigation Report, January 2010. p.6

7 Where 'local' traffic refers to traffic originating in and around Tinwald itself, particularly originating locally on the east side of SH1.

8 Several by-pass options were suggested, as well as options within the SH1 corridor such as 4-laning of the existing bridge or extending Melcombe Street to a second bridge immediately adjacent to the existing bridge.

Additional Investigations and social impact assessment (2010-2012)

As a result of this community feedback, the Council decided in April 2010 to commission additional technical investigations by Opus, including additional traffic counts, and also to commission a social impact assessment. These additional investigations and social assessment activities formed the basis for a second round of comparative assessments of options. The second round of assessments focused on three general concepts for alternative bridge locations - Melcombe St, Chalmers Ave and by-pass options[9]. Each of these had several variants, noted below -

- By-pass	outer by-pass
	inner by-pass
- Chalmers Ave	eastern-most (beyond future residential zone) - "rural"
	central (within future residential zone/currently rural) - "urban"
	Grove St - western-most Chalmers Ave option
- Melcombe St	using a level crossing
	using a rail overpass

At the urging of community representatives[10] a 4-laning option for SH1 through Tinwald was included subsequently. The consultants also incorporated as a separate option the signalised intersection in Tinwald, for the sake of completeness[11]. Thus, with the agreement of the Council, the additional technical investigations and social impact assessment compared nine options.

The methodology for the second round of comparative assessments is described in Opus (2011)[12]. Assumptions about each option are summarised[13] and the criteria adopted for the second round of assessments are explained[14]. New elements in the process during this second round of assessments involved inputs from the social assessment activities carried out by Taylor Baines & Associates (refer section 1.2), and inputs from a Community Reference Group (section 1.3).

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9 Even though two by-pass options were included in this phase of additional investigations, they still had to be assessed against criteria that were relevant to the project objectives - i.e. addressing the needs of "local" traffic.

10 Members of the Community Reference Group established during the period of Additional Investigations.

11 Previous public consultation commentary had drawn attention to this option, even though it does not involve a second bridge.

12 Opus Consultants, 2011. Additional Investigations for a Second Bridge Across the Ashburton River. Report prepared for the Ashburton District Council by Opus Consultants. February 2011.

13 Opus Consultants, 2010. Table 1: Summary of Option features (AI Report, January 2010, p.32)

14 Opus Consultants, 2010. Section 8 (AI Report, January 2010, pp.57-58)

Of the nine options assessed and compared across all criteria, only four options emerged with positive comparative scores. These were the three options associated with a bridge at the south end of Chalmers Avenue, and the option of installing traffic signals on SH1 in Tinwald. Since the installation of traffic signals addressed local traffic issues but clearly did nothing to address the bridge security issue, it was ranked considerably below the three Chalmers Avenue options. Within the latter three, comparative assessments made a clear distinction between linking the bridge to Grove Street and linking the bridge to new roads east of Tinwald, scoring the Grove Street option less favourably.

The comparative findings summarised above remained the same when based just on Community Reference Group priority criteria or just on social criteria[15].

Council decisions (2012-2013)

On 13 December 2012 Council formally resolved the following:

> *"1. The second bridge project including bridge access route alignments proceed to land designation;"*

On 4 July 2013 Council resolved the following:

> ***"1. That** Council approves Option A as the road alignment to proceed to land designation for the second urban bridge across the Ashburton River; and*
>
> ***2. That** options for the reprioritisation of roads crossing Chalmers Avenue be reported before the land designation proceeds."*

1.2 Taylor Baines' involvements

Taylor Baines & Associates was engaged in April 2010 to work with OPUS International Consultants in executing the additional investigations requested by Council. Taylor Baines' specific responsibilities included contributing the social dimensions to the multi-criteria assessment framework, carrying out a comparison of social impacts of a second bridge across the Ashburton River on an option-by-option basis[16], and establishing and facilitating a series of meetings of the Community Reference Group.

In August 2013, Taylor Baines & Associates was engaged to prepare this social impact assessment report relating to the final preferred option (Option A), including the identification of mitigation measures where appropriate.

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15 Taylor Baines, 2011. Section 5.3, p.35.

16 Taylor Baines, 2011. Ashburton Second Bridge Options: Comparative Social Impact Assessment. Prepared for the Ashburton District Council. 81p. January 2011.

1.3 The Community Reference Group

The Community Reference Group (CRG) should be viewed as a specific and important element in the overall programme of community consultation. Taylor Baines & Associates had responsibility for proposing Terms of Reference for the CRG, and then for recruiting and convening the CRG. It is pertinent to be clear about the Terms of Reference, since there was at the time some misinformation reported in the public media[17] regarding the nature of the CRG's role.

The purpose of the Community Reference Group was:

> - to act as a sounding board for advice from the Tinwald and Ashburton community to the consultants carrying out additional assessment work on the 2nd bridge options, with particular attention to the scope of the assessment and the methods of consultation.

Within this purpose, its functions were stated as follows:

> - to exchange and discuss information relevant to the further assessment work;
> - to represent community interests (rather than personal interests) when expressing views about community issues and concerns associated with the options being assessed;
> - to provide advice to the consultants on matters related to community engagement; and
> - to review and provide feedback to the consultants on the findings of further assessment work.

The functions of the Community Reference Group explicitly excluded the following -

> - to be advocates for or against a particular 2nd bridge option;
> - to make final decisions on the consultants' work programme.

In summary, Taylor Baines & Associates had the responsibility of recruiting members to the CRG and facilitating its meetings. The CRG had an advisory role, not a decision-making role.

Regarding membership of the CRG, the original concept was that the CRG would comprise individuals who represented the following interests -

> - residential communities likely to be most affected by any proposal (e.g. Tinwald, Lake Hood, Ashburton town around Chalmers Ave/Williams St) ;
> - business interests in Ashburton (e.g. Grow Mid-Canterbury);
> - those with interests in the Ashburton River and its margins (e.g. River Guardians, recreational groups using the river margins);

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[17] For example: a headline stating *"Group may drive bridge decision"* (Ashburton Guardian, 29Nov2010); report of a councillors concern that *"the reference group would come back with recommendations that council might not agree with."* (Ashburton Guardian, 6Dec2010).

- particular transportation interests (e.g. Road Transport Assn; cycling advocates);
- particular community interests (e.g. Tinwald Primary School; similarly a school on the north side of the river).

Ultimately, the CRG comprised the following representation[18] -

- resident of Lake Hood,
- chair of Tinwald School PTA,
- residents of Tinwald - east of SH1 and west of SH1,
- resident of Chalmers Avenue,
- chair of Mania-O-Roto Scout Zone,
- student of Ashburton College,
- Federated Farmers,
- Ashburton Business Association,
- Road Transport NZ.

The CRG met on five occasions between July 2010 and January 2011. A final meeting was held on 14 August 2012 during which members were urged to encourage their constituencies to engage in the final round of community consultation activities.

1.4 Community consultation

The social impact assessment work has been conducted in a participatory manner. It has involved interviews with a range of interested parties to gather information and discuss potential effects. Taylor Baines personnel attended the Open Days in 2010 and 2012. They were also involved in the discussions within the Community Reference Group, as explained in Section 1.3 above.

Consequently, it is clear that the social impact assessment work has been part of the overall community consultation activities. The complete picture of community consultation activities is provided in separate reports prepared by Opus Consultants - Ashburton Second Bridge Consultation Report (Opus, May 2010) and Ashburton Second Urban Bridge Consultation Report (Opus, November 2012).

[18] While not identified individually by name in this report, all members of the CRG agreed to having their names published in the project newsletters to facilitate opportunities for members of the public to approach them.

2 APPROACH AND METHOD OF ASSESSMENT

2.1 Relationship to comparative assessments

This social impact assessment takes previous assessment work one stage further. Previous assessment work focused on comparing the likely social effects between a range of options for bridge location and road alignment. This assessment focuses on the expected social effects of the Council's preferred bridge location and associated new road through the area east of Tinwald, as described in the Ashburton Second Urban Bridge Traffic Impact Assessment (Opus September 2013) and associated drawings.

This assessment is based on the assessment work used for the comparative assessments, including previous fieldwork, interviews and submissions. As set out in Section 2.2 below, this assessment adopts the same analytical framework for assessing effects on social wellbeing as for the comparative assessments.

2.2 Analytical framework for assessing effects on social wellbeing

The Resource Management Act 1991 (RMA) sets out a statutory framework which aims to direct the assessment of whether the proposal (in this instance, a proposal for a second bridge) would *"promote the sustainable management of resources in a way or at a rate that enables people and communities to provide for their social, cultural and economic well being"* as provided for in section 5 of the Act. The requirement in the Act is to consider the potential effects on people and communities.

Carrying out a social impact assessment within this statutory framework requires attention to a conceptual framework for thinking about social well being, and the factors which might contribute to people's experience of social well being. This conceptual framework is set out briefly and referenced in Appendix 1.

Elements likely to be of most relevance to this comparative SIA include consideration of -

- the quality of housing, shelter, neighbourhood and living place - in this case influenced by consideration of residential amenity (e.g. ambient noise levels, air quality, etc.), residents' expectations of residential amenity in relation to adjacent road function, and the potential influence on further residential development in future;

- influences on personal safety, public safety, autonomy or freedom from too much risk - in this case influenced by consideration of pedestrian safety, vehicular safety, cyclist safety, travel autonomy/choice of route and access to emergency services (Police, Fire, Civil Defence);

- the state of physical and mental health - in this case influenced by access to primary health services within a town centre, and the encouragement of active

modes of transport, especially walking and cycling at peak traffic times;

- opportunities for income, employment and the quality of working life - in this case influenced by worker accessibility to work locations, particularly involving peak-time travel, distance-related operating costs for commercial transport operators;

- access to goods and services - in this case influenced, for example, by access to schools and pre-schools (particularly involving morning peak-time travel), and the public library, etc; also access to frequent shopping destinations, particularly supermarkets;

- the quality of the physical environment, a clean environment with aesthetic appeal - in this case influenced by traffic-related ambient noise levels and air quality and the quality of the street-scape (for example in the East Street retail precinct), and the effects of a second bridge crossing on the environment of the Ashburton River;

- influences on family life, social attachment, social contact, interaction and support - in this case influenced by access to social services (for example services for the unemployed, for the elderly, for people with disabilities, etc), and also by the influence of traffic and road network on neighbourhood/community identity;

- influences on participation in community and society, including participation in organised groups and social activities - in this case influenced by access to community facilities;

- opportunities for leisure and recreation, time to enjoy them, and access to quality outdoors/open space - in this case influenced by access to specific recreation destinations (for example school recreation venues in town, Lake Hood, etc.).

These elements of social wellbeing provide the basis for assessing changes in levels of social wellbeing. Some of these assessments can be quantified while others are subject only to description and qualitative assessment.

2.3 Summary of work carried out

As reported previously[19], the original scope of work for Taylor Baines involved:

- attendance at Open Days in April 2010;
- reviewing the Issues & Options Report and in particular the information and rationale behind the previous comparative ranking of options;
- advising on the focus of additional technical work;
- conducting a comparative social impact assessment of the agreed options, based on key informant interviews, primary and secondary data gathering, direct observations, and discussions with members of the Opus team of consultants;

[19] Taylor Baines, 2011, Section 1.3, p.2.

- establishing and facilitating the Community Reference Group;
- advising on the communication of results to the wider community;
- preparing a report on the comparative assessments.

Since January 2011, Taylor Baines work involved attendance at the Open Days in Tinwald and Ashburton in August 2011 and providing comments on the final Opus report to Council. While not involved in the Council discussions with directly affected landowners[20] and affected landowners, Taylor Baines has, on a strictly confidential basis, been able to see a summary of those discussions for the purposes of understanding the issues and potential social effects of interest to these landowners.

2.4 Links to other technical assessments

In preparing this report, Taylor Baines has been provided with drafts of the technical assessment reports prepared for:

- traffic effects,
- noise effects,
- vibration effects,
- air quality effects,
- visual and landscape effects, and
- lighting effects.

There have also been opportunities for direct discussions with the consultants preparing these assessments, aimed at ensuring consistency of assumptions and findings and a coherent approach to mitigation where required.

[20] "Directly affected landowners" are those whose land is intersected by the footprint of the road proposed for designation. "Affected landowners" are those whose land is immediately adjacent to the proposed designation footprint, or otherwise who are neighbours of directly affected landowners.

3 PREFERRED BRIDGE LOCATION AND ROUTE AND EXPECTED OUTCOMES

3.1 Description of preferred route

The preferred location for a second bridge across the Ashburton River is aligned with the southern end of Chalmers Avenue, which is the principal north-south road on the eastern side of Ashburton township.

The route recommended for the proposed new road which will connect the second bridge into the road network in Tinwald runs generally in a north-south direction - with large-radius curves aimed at minimising the potential for adverse effects on existing properties and dwellings - passing across flood-control land owned/administered by Environment Canterbury before passing through land that is currently zoned Residential D and Residential C and crossing three east-west roads (Carters Terrace, Wilkins Road and Johnstone Street) before reaching Grahams Road.

3.2 Key assumptions and expected outcomes

Key assumptions about the proposed second bridge and connecting road include:

- while residents of Tinwald and surrounding eastern rural areas south of the River including Lake Hood already commonly experience frustrating delays turning northwards onto SH1 within Tinwald, the traffic assessment has concluded that capacity issues on this stretch of SH1 will result in significant reductions in Level of Service (LOS)[21] by 2026;

- consequently, it is currently expected that the second bridge will be programmed for construction around 2025;

- being a principal road passing through a residential area, the speed limit on the new road will be the same as for other urban areas within Ashburton (i.e. 50kph);

- being a principal road passing through a residential area, the usual main reticulated services (water supply, waste water, telecommunications cables, etc.) are expected to be incorporated within the road reserve, when construction occurs[22]; similarly, as part of its lifeline functions, the second bridge is expected to carry these utilities across the river;

- the new road and second bridge will be designed to high safety standards suitable

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21 Grahams Road/Archibald St reaches LOS F during the morning peak by 2026, assuming no traffic signals are installed. Also the SH1/Moore St signal-controlled intersection reaches LOS F by 2026. Bill Rice, Opus, pers.comm. 6 August 2013.

22 The services could be laid in the road reserve before the bridge and road is built if residential development happens earlier and the utilities are needed to service such development. Bill Rice, Opus, pers.comm. 6 August 2013.

for accommodating pedestrian, bicycle and vehicle traffic on lanes dedicated to each mode;

- once the second bridge and road connections through to Grahams Road have been constructed, a significant proportion of local traffic originating in Tinwald East and neighbouring rural land, or visiting these areas from elsewhere, is likely to use this new route, particularly on northbound trips and particularly at peak travel times; this is likely to apply to cars and heavy vehicles[23] in this sector; the traffic assessment estimates that 27% of traffic crossing the Ashburton River northbound in the morning, and 29% southbound in the evening will use the proposed route in 2026; this percentage is expected to increase further as east Tinwald and Lake Hood continue to develop;

- much of the new local traffic crossing the second bridge in a northward direction will disperse (i.e. turn right or left off Chalmers Avenue) along local roads progressively along Chalmers Avenue;

- much of the local traffic traditionally using the northern part of Grove Street will disperse along local roads progressively along Grove Street;

- little change in traffic volumes is expected along Grahams Road; an increase in SH1 traffic[24] heading to east Ashburton destinations via the second bridge will be offset by the reduction in Tinwald and Lake Hood traffic using Grahams Road;

- inter-district traffic, whether cars or heavy vehicles, are unlikely to detour via the second bridge since this route will represent additional distance and therefore additional travel time and cost;

- because of the expected scheduling of bridge construction, it is expected that the gravel extraction and cartage currently associated with the expansion of Lake Hood will be winding down[25].

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23 i.e. local transport operators serving east-side destinations.

24 It is assumed that there will be no traffic signals installed on SH1 in Tinwald. If traffic signals are installed as an interim measure, they should be removed when the second bridge is constructed.

25 The expansion was approved in March 2010 (ADC media statement, 2 July 2010). Large-scale excavation works were expected over a period of 10-12 years, and the stock-piling, processing and cartage of gravel over a period of 15-20 years (Taylor Baines, 2008, p.25)

4 EXISTING SOCIAL ENVIRONMENT

4.1 Ashburton town and district

Ashburton is the major centre of population in the Ashburton District and an important service centre for District residents and businesses.

The following sections present social data relevant to assessing the potential scale and significance of the social effects associated with the construction and operation of a second bridge across the Ashburton River as proposed in the Notice of Requirement.

4.1.1 Population trends

Up-to-date statistics on resident population are not available[26]. Nevertheless, it is evident from previous census data that Ashburton District and town have been experiencing considerable growth - some 1,940 (+8%) growth in the District in the last inter-censal period between 2001 and 2006. Ashburton town's contribution to this population growth was shared between infill development within the town (435,+4%), growth in Tinwald (120, +4%), and peri-urban rural-residential development to the north of Ashburton (350, +29%) and around Tinwald (155, +39%) in several directions. The rural area east and south-east of Tinwald, which incorporates the Lake Hood development, displayed proportionately exceptional growth (100, +47%) over this period[27].

Sub-national population estimates[28] provided by Statistics NZ indicate that this growth across the District has continued, from 28,000 in June 2006 to 30,600 estimated in June 2012.

4.1.2 Travel to work

At the time of the 2006 census, more than one thousand (1,128) people were commuting daily across the bridge to and from work. This figure corresponds to 16% of all working people in Ashburton and Tinwald. Data have been analysed for travel between Ashburton and Tinwald and also between Ashburton and the rural areas surrounding Tinwald[29]. 771 residents of Tinwald travelled daily across the River to work in Ashburton and a further 117 residents from outlying rural areas south of the River did the same. 222 residents of urban Ashburton travelled daily across the River to work in Tinwald and a further 18 travelled daily to workplaces in outlying rural areas south of the River. Either way, such commuting

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26 The most recent Census of Population and Dwellings for which results are available was conducted in 2006. The 2011 Census was interrupted by the major earthquake in Christchurch on 22 February 2011.

27 Data are provided in Appendix 2.

28 http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationEstimates_HOTPYe30Jun12.aspx Accessed 6 August 2013.

29 Data are summarised in tables in Appendix 3.

involves a daily round trip. There is also evidence[30] that some people return home for lunch, meaning that work-related commuting involves two round trips per working day. Comparison of these data (March 2006) with number plate counts (February 2006) suggest that work-related commuting contributes a substantial proportion of peak "local" vehicle travel across the bridge.

4.1.3 Travel distances for transport operators

Another important stakeholder group in this exercise, besides residents, are the local transport operators, of which there are some half dozen serving various sectors of the freight transport market - cartage of gravel for road construction and concrete manufacture, stock movement, grain transport, delivery of building supplies. Currently their premises are spread in several locations around Ashburton and Tinwald[31]. Three companies currently have premises along South St, associated with principal routes along SH1, SH77, South St, Chalmers Ave (mainly south of Moore St) and Moore St.

Deliveries of building supplies can be expected in any part of town and at any time of year, although Lake Hood will be one location of exceptional activity with new houses as well as gravel extraction to create the expanded Lake. Grain transport and stock movement is highly seasonal. Ashburton is home to two of the largest seed processing plants in the southern hemisphere in PG Wrightsons and S I Seed Dressing, which are especially busy in summer through to March each year.

Expectations were expressed by several people from the transport sector that South St depots will likely re-locate in the future because of the value of the land they currently occupy. Much change is envisaged in the patterns of processing farm products - seeds, meat, milk; it is difficult to know in detail how this will change the pattern of rural truck movements many years out. One strong likelihood, with the recent consenting and imminent construction of a new Fonterra milk-processing plant near Darfield, is that the passage of Fonterra milk tankers through Ashburton is likely to diminish substantially in future. At present all milk from as far north as Culverden passes through Ashburton on its way to be processed at Clandeyboye.

Commercial transport operators work on tight margins where a combination of distance and time is critical to the overall costs of operation; distance travelled as well as travel speeds and the likelihood of interruption to travel are relevant considerations. Thus a general rule of thumb is that operators will choose the shortest possible route along which they are unlikely to encounter interruptions. Generally, they try to keep their drivers off residential streets if possible, because of the slower speed environment and the chances of travel disruption.

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30 Traffic count evidence of a mid-day peak in traffic flows across the bridge.

31 Including Melcombe St, South St and Trevors Rd.

4.1.4 Travel to school

It has been estimated for this assessment that some 230 school children travel daily from south of the River and east of SH1 to schools north of the River in Ashburton. A good proportion of these will involve two car trips per school day, the morning trip coinciding with the morning traffic peak across the bridge.

The Ashburton urban area is served by seven primary schools, one intermediate school and one secondary school. All but Tinwald School (primary) are located north of the River. Tinwald School is a contributing primary school. This means that children of intermediate school age (Yr7 and Yr8) must travel to Ashburton Intermediate for their schooling, unless they are already attending another full primary school in Ashburton (on the north side of the River). Tinwald School is one of three primary schools which operate enrolment schemes.

School	Street	Location	School Type	Enrolment Scheme	Roll 2009	Decile 2010
Ashburton College	27 Walnut Ave	Central West	Secondary	N	1158	7
Ashburton Intermediate	144 Cass St	Central East	Intermediate	N	368	6
Ashburton Christian School	119 Albert St		Full Primary	N	30	10
Allenton School	110 Harrison St	Allenton	Contributing	Y	324	8
St Joseph's School	87 Havelock St	Central West	Full Primary	N	199	8
Ashburton Borough School	Winter St	Central West	Full Primary	N	335	7
Ashburton Netherby School	Brucefield Rd	Netherby	Contributing	N	129	3
Hampstead School	55 Wellington St	Hampstead	Contributing	Y	278	4
Tinwald School	131 Thomson St	Tinwald	Contributing	Y	214	6

Tinwald School's roll has been relatively steady over the past decade, being between 210 and 220 for eight of those years.

The component of the 2006 population living in Tinwald and the rural areas immediately adjacent to Tinwald[32] and aged 5-9[33] years totalled 213, compared with the 2006 Tinwald School roll of 219. At that time the rural areas adjacent to Tinwald had by far the highest population growth rate of any area in the entire District. This suggests that some households (an increasing number) will be taking their children to primary schools on the north side of the River, which may necessitate two car trips each school day.

The number of primary school-age children travelling across the River to school in 2006 is estimated at 40. The number of intermediate and secondary school-age children travelling across the River to school in 2006 is estimated at 90 and 210 respectively. Given the geographic distribution of resident population, 67% of these came from east of SH1, totalling approximately 230.

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[32] Corresponding to Census Area Units (CAUs) - Tinwald and Plains-Railway. Note that Tinwald School's zone extends considerably beyond the boundaries of Plains-Railway into the Hinds CAU.

[33] Ages 5-9yrs will under-state the primary school age cohort. Conservatively, one-fifth of the 10-14yrs cohort should be included - an additional 46 children aged 10yrs.

All Ashburton schools are serviced by Ministry of Education-funded school buses for eligible students. However, eligibility criteria mean that most such bus services carry only children living in rural areas for primary schools. Even for Ashburton College and for Ashburton Intermediate, the criterion of living more than 4.8km from the school renders many residents of Tinwald ineligible for such services. Nevertheless, Tinwald School acts as a hub for school buses in the morning, as children meet there to get on the buses to go to other parts of Ashburton. The Intermediate School has 80 children enrolled from south of the bridge[34] and pays for a bus called the Tinwald Express, which is just for the intermediate pupils. However, there are also buses provided by the Mid Canterbury Schools Transport system run from the College, and some intermediate pupils pay to use these buses.

Pre-school facilities are also distributed throughout Ashburton and Tinwald[35], with a preponderance north of the River. Some specialist pre-schools[36] exist only north of the River.

4.1.5 Emergency services in Ashburton

All the emergency services - the hospital, ambulance service, fire service and police - are located north of the River.

Fire Service:
Twenty-two percent of all Fire Service call-outs during 2010[37] were from south of the River and involved access across the bridge. This is equivalent to 3 call-outs every two weeks, a not infrequent event.

St John Ambulance:
Ambulance services in Ashburton average 55 call-outs a week, of which on average 18 are to south of the bridge, or almost 3 call-outs per day.

4.1.6 Distribution of public facilities and specific social support services

Principal civic amenities such as the Council offices and the public library are located north of the River. The majority of community meeting venues are located north of the River.

The proportion of elderly living in Tinwald is not as high as that for Ashburton as a whole[38]. This may reflect a desire by elderly to live close to services and facilities, which tend to be located north of the River and east of the State Highway. The proposal to establish a retirement complex in Tinwald[39] will add a further increment to this demographic living south

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34 Currently, three staff members also live south of the bridge.

35 See Appendix 4.

36 For example, the Montessori pre-school in Chalmers Ave.

37 79 call-outs south of the bridge out of a total of 367.

38 17% of Tinwald's population in 2006 was aged 65 years and over, compared with 22% for all of Ashburton.

39 Consent application recently approved by the Council for a development on Carters Avenue.

of the River. Less confident drivers are likely to be more constrained by the current traffic issues associated with the bridge and SH1 in Tinwald, and yet most support services for the elderly are located north of the River and there is no public transport. Similar circumstances apply for other interest groups[40] for whom physical accessibility can pose particular demands, such as people with disabilities and people who are unemployed.

4.1.7 Distribution of sport and recreation venues

A variety of sport and outdoor recreation venues exist on both sides of the River. North of the River are the Ashburton Domain, Ashburton College, the A&P Showgrounds, the Ashburton Racecourse, Ashburton Golf Course, various club facilities in Allenton (e.g. bowls, tennis, squash, scouts/guides, rugby, netball) and Hampstead (e.g. bowls, rugby), the Mid-Canterbury Basketball Stadium and numerous smaller green space parks. The proposed Ashburton Aquatic Centre is also to be located on the north side of the River. South of the River is a range of sports and recreation venues in Tinwald itself, including the Tinwald Domain (including facilities for cycling, tennis, rugby, swimming), Tinwald Golf Course, and the cluster of sports facilities between Melcombe St and Tarbottons Road (including hockey, bowls, soccer and netball). Discussions with schools indicate that all big sports venues commonly used by schools are on the north side of the bridge. School children need to be taken there numerous times for swimming, hockey, soccer, rugby competitions. There are four major sport tournaments each year, when many schools converge.

A major recreation facility on the south side of the River is focussed on Lake Hood (refer to Section 4.3 below for more detail).

4.2 The vicinity of the proposed bridge location

The proposed second bridge will be located at the southern end of Chalmers Avenue and constructed within the river and its margins. Notable features in the river margins are the walking track from the existing bridge to the coast on the northern bank of the river, and the cycle track from the existing bridge to Lake Hood on the southern bank.

4.3 South of the proposed bridge location

Immediately south of the river, the proposed road will pass through a 300m band of vegetated land administered by Environment Canterbury for flood control before reaching what is presently an area of rural-residential character running along the eastern margins of Tinwald.

[40] See Appendices 5 and 6 for details.

An area of land totalling some 39 hectares between Grahams Road and the River has been re-zoned Residential C[41] and Residential D[42]. While this re-zoning extends across Grahams Road to the south, the road proposed for designation extends only as far as Grahams Road.

It is therefore logical to expect that in years to come the residential character of this area will change significantly as a result of sub-division and residential intensification. At the present time, there are some 23 dwellings across this 39 ha area. If the area developed in an ad hoc manner, with new dwellings unconnected to public reticulated sewage, at full development the total number of dwellings would likely be two times the present number (i.e. a doubling in the number of households). If however the area developed in a more coordinated and planned manner, with new dwellings connected to public reticulated sewage, at full development the total number of dwellings would likely number between 120 and 130, a six-fold increase in the number of households on this area.

Another important driver of change and activity levels in this sector of Ashburton is Lake Hood, being some 7 km from the town and accessed predominantly via Grahams Road. The associations between Ashburton and Lake Hood are extensive. At the time when the Lake Hood extensions were being planned, research identified that more than two-thirds (71%) of the permanent residential community of Huntingdon Park at that time came to the Lake Hood location, having lived previously in Ashburton or Tinwald. Furthermore, more than half the recreational visitors[43] to Lake Hood lived in Ashburton (46%) or elsewhere in Ashburton District (9%). Several aquatic sports clubs have come into existence or consolidated as a result of the advent of Lake Hood[44] - the Ashburton Sailing Club, the Ashburton Rowing Club, the Water Skiing Club, and the Kayaking Club. Three of them would not be in existence, were it not for the existence of Lake Hood nearby. Student classes from Ashburton Intermediate and Ashburton College also make regular use of facilities at Lake Hood[45].

Lake Hood is currently undergoing a substantial expansion. The full extent of the proposed development involves some 280-300 additional residential lots, including a 'village centre', and ~50-70 rural-residential sections (mix of 1-10 acres). Ultimately the total number of residential lots, including the existing 150 lots, will cater for ~500 households at Lake Hood[46].

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41 Approximately 4.3 hectares of land has been re-zoned Residential C, allowing for minimum lot areas of 360m^2, except where public sewage reticulation is not available.

42 Approximately 35 hectares of land has been re-zoned Residential D, allowing for minimum lot areas of 4,000m^2, except where public sewage reticulation is not available.

43 Rob Greenaway & Associates, 2007. *Lake Hood Visitor, Resident and School Survey 2007.* Commissioned by the Tonkin & Taylor Ltd on behalf of the Ashburton Aquatic Park Charitable Trust.

44 Taylor Baines, 2008. *Lake Hood - second stage development: Proposed Plan Change Social Impact Assessment Report.* October 2008. pp.6-7.

45 Ibid. p.8

46 Ibid. p.3

4.4 North of the proposed bridge location

Immediately north of the proposed second bridge, Chalmers Avenue is a two-lane road passing between Robilliard Park to the west and the Ashburton Scouts premises to the east. At the South St intersection, Chalmers Avenue divides into a median-separated principal road which continues north to the roundabout which links Walnut Avenue, Bridge Street and Albert Street. In this way, Chalmers Avenue has long been the eastern part of the principal road network of the town, linking to similar median-separated roads - Walnut Avenue which travels in an "east-west" alignment across SH1 and Oak Grove which travels in a "north-south" alignment through the western part of the town.

The eastern side of Chalmers Avenue is residential in character along its entire length, while on the western side, the first two blocks are commercial/industrial in character, before becoming predominantly residential north of Dobson Street. Much of the residential area of Ashburton between Dobson and Victoria Streets is within walking distance of the town centre and the fullest range of amenities and destinations. Three pre-schools are located in the residential area to the east of Chalmers Avenue, as is Hampstead School, which is close to the urban-rural boundary on the eastern side of the town.

5 ASSESSMENT, MITIGATION AND MANAGEMENT OF SOCIAL EFFECTS

5.1 Introduction

The analytical framework explained in Section 2.2 of this report gave examples of the kinds of effects on social wellbeing that might arise as a result of the construction and operation of the proposed second bridge and associated access road.

A second bridge introduces choice for many Tinwald and Ashburton residents as to how they move about their town on trips which involve crossing the River. Choices are introduced both in terms of the route taken and in terms of the mode of travel.

This new element of choice creates opportunities for improved accessibility to a variety of destination types, influenced by perceptions of trip distance, trip time and personal safety.

The location of the second bridge and access road has implications for property owners along the new route in terms of property values and residential amenity values.

The changes in future traffic patterns and traffic flows once the new bridge is constructed also have implications for people living in the vicinity of other roads which experience the most noticeable levels of change, in terms of residential and neighbourhood amenity values.

These social effects are discussed in more detail in the following section.

5.2 Assessment of social effects

5.2.1 Introducing choice

The advent of a second bridge will for the first time create realistic choice[47] for any residents of Tinwald and Ashburton wishing to travel to destinations in town across the River from where they live. Choice is relevant to the issue of accessibility (see section 5.2.2) and security (see section 5.2.3). This will be most relevant for those wishing to travel during peak times when existing levels of congestion in the vicinity of the existing bridge is already a deterrent for some. This applies to cycle travel as well as vehicular travel. It is also relevant to any bridge users in those occasional situations when the bridge is closed as a result of a traffic accident, spillage or some other form of blockage, at which times a second bridge enables convenient crossings to continue.

In terms of scale, this effect is estimated to be relevant to at least 20%[48] of the population resident in Ashburton, Tinwald and rural areas adjacent to Tinwald. In terms of likelihood, this beneficial social effect is certain. More detail is provided in the next section.

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47 The nearest alternative route across the Ashburton River is via SH77, Thompson's Track, Mayfield-Valetta Road, Valetta-Westerfield Road and Tinwald Westerfield Road, a total distance of some 56km.

48 Quantitative estimates for some components of this affected population are provided in Section 5.2.2.

5.2.2 Accessibility - to schools, employment, retailers, recreational venues, health and social services, community facilities and social support

Besides providing a choice of route, a second bridge will also make some destinations more accessible to residents of Tinwald and Ashburton, as a result of reduced trip distance and/or reduced trip time. This social benefit will apply predominantly and most obviously to residents in Tinwald and rural areas southeast of the existing bridge, wishing to access destinations in Ashburton north of the River. However, Ashburton residents visiting destinations southeast of the existing bridge, such as Lake Hood, will also benefit from improved accessibility on their return trips.

There are various types of destination for which accessibility improvements will cumulatively affect many Tinwald and Ashburton residents. Some of these visits are closely associated with peak travel times, particularly travel to and from work and travel to and from schools and after-school activities.

Access to schools

As noted in section 4.1.4, of the seven primary schools within the urban area of Ashburton, Tinwald School is the only school south of the River. It is a 'contributing school', meaning that Years 7 and 8 students must travel to Ashburton Intermediate, north of the River.

It was estimated in the comparative social impact assessment[49] that 230 school children travel daily from south of the River and east of SH1 to schools north of the River, many involving two car trips per day, the morning trip coinciding with the morning traffic peak. During summer months, secondary students have been observed cycling or walking to Ashburton College from Tinwald. The second bridge will improve accessibility (travel times and safety) for many of these households. It is also conceivable that the proposed second bridge could open up additional choices of primary school, particularly for children living southeast of the existing bridge to attend schools northeast of the existing bridge, such as Ashburton Christian School or Hampstead School (noting however that the latter has an enrolment scheme) and vice versa for children living north of the River to attend Tinwald School (also currently with an enrolment scheme).

Discussions with schools indicate that all big sports venues commonly used by schools are on the north side of the bridge. School children need to be taken there numerous times for swimming, hockey, soccer, rugby competitions. There are four major sport tournaments each year, when many schools converge. For people living southeast of the existing bridge, these are all additional trips which currently have to contend with congestion on SH1. Furthermore, Ashburton Intermediate and Ashburton College make regular use of Lake Hood for outdoor education activities. For students living north of the River, these involve return trips which currently have to use the existing bridge on SH1.

Discussions with the Mid Canterbury Schools Transport coordinator indicate that the advent of a second bridge could result in re-routing of some school bus services, since specific routes are designated, taking into account safety considerations such as avoiding right-hand

[49] Taylor Baines, 2011, pp.22-23.

turns in front of on-coming traffic, if possible. Tinwald School currently acts as a school bus hub for collecting rural students needing to travel north across the River, and these buses have no option but to make a right-hand turn onto SH1 in front of relatively high volumes of on-coming traffic. An alternative school bus route across the River might also make some other choices of school more accessible to parents living south of the River.

Pre-school facilities are also distributed throughout Ashburton and Tinwald, with a preponderance north of the River (see Appendix 4). Some specialist pre-schools[50] exist only north of the River. Thus, similar benefits (improved accessibility and greater choice) potentially exist for households southeast of the existing bridge wishing to access pre-school services north of the River.

The combination of southern students travelling north to school and northern students travelling south to places like Lake Hood means that this benefit is likely to affect hundreds[51] of school and pre-school children and their parents living on both sides of the River. The longevity of schools and the legal requirement for education make this social effect certain.

Access to workplaces

As noted in section 4.1.2, at the time of the 2006 census, more than one thousand (1,128) people were commuting daily across the bridge to and from work, corresponding to 16% of all working people in Ashburton and Tinwald. Such commuting involves a daily round trip, with a preponderance of these occurring during peak traffic periods. Traffic count data[52], supported by interviews indicate that some working people also return home for lunch, resulting in two round trips per working day and contributing to the mid-day peak. It can be inferred from the traffic count data that work-related commuting contributes a substantial proportion of peak "local" vehicle travel across the bridge[53]. Thus measures which spread work-related commuting traffic over two possible routes across the River are likely to reduce congestion on the bridge and Archibald St as well as provide benefits to the commuters in terms of reduced travel times.

The scale of this element of social benefit is indicated by the numbers above. This scale of effect is highly likely, unless patterns of employment across Tinwald and Ashburton change significantly.

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50 For example, the Montessori pre-school in Chalmers Ave.

51 A reasonable guesstimate incorporating school children and pre-school children travelling north and intermediate and secondary school students returning from Lake Hood would be 400-500 households, distributed fairly evenly between residents north and south of the River.

52 Included in the Traffic Impact Assessment, Opus (September 2013).

53 Bill Rice, pers.comm. 1 September 2013.

Access to retail outlets and supermarkets

Both full-service supermarkets are located north of the River in central Ashburton. While Tinwald has a small Supervalue store on SH1, it is very likely that this serves primarily a convenience function, and that most households in Tinwald, Lake Hood and the surrounding rural areas will visit Countdown or New World for their principal grocery shopping on at least a weekly basis. These destinations will become more accessible with the advent of the second bridge on Chalmers Avenue. A similar situation exists regarding access to other major retail outlets selling goods into the Ashburton market, almost all of which are located north of the River. However, visits to these retailers are typically much less frequent than to supermarkets.

2006 census data indicate that approximately 1200-1300 households in the southeast sector are very likely to experience this beneficial effect.

Another location where access to retail outlets will be improved is SH1/Archibald Street in Tinwald. Access to roadside shops and premises on the east side of Archibald Street will be made easier and safer by the reductions in traffic volumes along this stretch of road, enabling easier and safer transitions into and out of the traffic stream and less competition for roadside parking space.

Access to recreational venues

Recreational venues on the north side of the River were discussed above in terms of their usage by schools. As noted in section 4.1.7, there is also a range of sports and recreational venues in Tinwald itself, including the Tinwald Domain (including, facilities for cycling, tennis, rugby, swimming), Tinwald Golf Course, and the cluster of sports facilities between Melcombe St and Tarbottons Road (including hockey, bowls, soccer and netball). These are all located on the western side of SH1 and therefore most visitors to these destinations are less likely to experience the access difficulties associated with SH1 and bridge congestion. However, a major recreation facility on the south side of the River is focussed on Lake Hood. A 2007 survey found that almost half (46%) the recreational visitors[54] to Lake Hood live in Ashburton.

Many of these visitors are likely to use a second bridge when making their return trip to Ashburton in order to avoid the congestion problems on SH1 and the existing bridge. This is yet another significant group of Ashburton residents, mainly from north of the River, who will benefit from the improved accessibility conferred by the second bridge.

[54] Rob Greenaway & Associates, 2007. *Lake Hood Visitor, Resident and School Survey 2007.* Commissioned by the Tonkin & Taylor Ltd on behalf of the Ashburton Aquatic Park Charitable Trust.

Access to health and social services

Good access to primary health services is an important determinant of health and wellbeing. Practically all primary health services are located on the northern side of the River (see Appendix 6). There is a medical practice in Tinwald, but no pharmacy. Improving access across the River increases the range of choices in health service providers for people living south of the River, particularly those living east of SH1, including Lake Hood residents[55]. A second bridge will improve accessibility to specialist health services, for people in the southeast sector.

People at either end of the age spectrum - infants and the elderly - tend to have greater demand for access to such services. The elderly also are more likely to have access difficulties, either because they do not drive themselves or because, as drivers, they have less confidence in risky traffic situations such as those posed by having to turn right onto SH1 in Tinwald. This can sometimes be sufficient to deter individuals from seeking medical services at all or in a timely manner. A second bridge will therefore provide a much safer alternative route across the River into the town centre thereby significantly enhancing accessibility in such cases.

While the absolute numbers of Tinwald and rural residents who would benefit most from such improved accessibility to health services may be relatively small, the nature of the benefit is significant. Moreover, in medical emergencies, ease of access becomes paramount and travel times can be critical (see further discussion in section 5.2.3 below under emergency services).

A similar situation exists regarding access to facilities and services catering to special interest groups (see Appendix 5). Once again, practically all such services are located on the northern side of the River.

Access to community facilities and leisure and entertainment facilities

A similar situation exists regarding access to community facilities such as the library, council offices or community meeting venues. Access to the latter can be important for providing opportunities for social contact and social support, and lack of such access can result in varying degrees of social isolation and mental health issues.

The greatest range of entertainment facilities in Ashburton - cinemas, cafes, restaurants and the like - exist north of the River. Once again, a second bridge will enhance choice for those living in the southeast sector.

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55 A survey of Huntingdon Park residents in 2008 indicated that these residents from Lake Hood are already more likely to be accessing doctor's services in Ashburton rather than Tinwald. This reflects two factors: capacity limitations in Tinwald and Lake Hood residents having moved from Ashburton and continuing to visit their existing doctor in Ashburton.

5.2.3 Safety

Considerations of personal safety as an element of social wellbeing relate to personal safety experienced by users of the road network and also to access of emergency services to areas southeast of the existing bridge.

Personal safety of road users

A second bridge will result in the biggest changes in local traffic volumes on SH1 through Tinwald (reduced traffic volumes) and on the southern sections of Chalmers Avenue and the streets leading off Chalmers Avenue (increased traffic volumes).

Concerns about road safety in the vicinity of SH1 in Tinwald have been evident for some years and the focus of considerable discussion. Indeed, the traffic assessment[56] indicates that significant positive effects of the proposed second bridge relate to reduced congestion in this location, particularly during peak periods, and the consequent reduction of risks for motorists turning right onto SH1 in Tinwald; for cyclists, negotiating SH1 and the existing bridge; and for pedestrians crossing SH1 in Tinwald. Where roads provide for vehicles, cycles and pedestrian traffic simultaneously, safety is improved in situations where adequate separation can be provided. The new bridge and access road will be designed to provide such separation.

However, some increase in these kinds of risks must be expected for road users on the southern sections of Chalmers Avenue, particularly south of Moore Street, with the level of increased risk diminishing with increasing distance north from the second bridge. According to the traffic assessment, the traffic environments in these two locations are very different and therefore the increase in risk levels expected on Chalmers Avenue are significantly less than the decrease in risk levels expected on SH1 in Tinwald. Chalmers Avenue has a broad median strip and typically slower vehicle speeds, being well within the urban boundary, as well as total traffic volumes in the order of 4,500 vehicles per day (vpd). In contrast, SH1 has no median strip, is much closer to the urban boundary and higher-speed environment - except when congested, and currently has traffic volumes, at 20,000 vpd, almost five times that of Chalmers Avenue below Moore Street.

Nevertheless, an area such as Chalmers Avenue, which is likely to experience some increase in road safety risks for drivers, cyclists or pedestrians as a result of increasing traffic volumes should not be overlooked in terms of considering mitigation (see Section 5.3 below). The community consultation activities elicited expressions of concern from some residents of eastern Ashburton about road safety risks associated with recent increases in traffic volumes on Chalmers Avenue. Consequently, the traffic assessment for this proposal has investigated and recommended options for mitigating these concerns. Mitigation measures include enhanced mid-block pedestrian crossing provision[57] and kerb build outs and raised platforms to improve the articulation of intersection layouts[58].

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56 Ashburton Second Urban Bridge Traffic Impact Assessment (Opus, September 2013)

57 Opus, 2013. Traffic Impact Assessment. Section 6.3, p.46.

58 Ibid., Section 6.2, p.45.

Access for emergency services

As noted above, almost all primary health services are located north of the River, as is Ashburton hospital.

From a public perspective, access to town and the hospital can be an issue in an emergency - for example, children at (Tinwald) school with severe allergic reactions; in case of restrictions on the existing single bridge *"we all have to learn how to provide the antidote and not rely on the emergency services"*. Restrictions are not limited to bridge closures. When time is short, even slow traffic across the bridge - *"large harvesters at harvest time"* - can effectively block the bridge for a critical period of time[59]. Such situations are rare, but the social consequences are potentially extreme. A second bridge avoids this uncertainty and removes the risk.

The perspectives of the emergency services are also relevant here, since they are also all located north of the River.

A critical issue for the Fire service is the availability of water to fight fires. All water is supplied from the town side of the bridge, whether piped or carried aboard a Fire Service vehicle. If the existing bridge is damaged in a way which damages the water pipe that takes water from north Ashburton to Tinwald, this would create a critical situation, as not only the supply of water would be cut off, but also the ability to take a water tanker over the bridge. The lifeline capability of the second bridge will provide the duplication necessary to reduce such a risk substantially. In terms of the speed of response to an emergency - *"we look for the shortest route whenever we get a call"*[60] .Thus a second bridge in the proposed location is likely to create a more direct route into parts of East Tinwald and to the southeastern peri-urban areas including Lake Hood.

Any closure of the existing bridge means that the next nearest ambulance response involves a 20- minute response time from Mayfield or a 20-minute response from the Christchurch-based helicopter, compared with 3 minutes from Ashburton . It would take over 30 minutes to get from Ashburton to the foothills and around to bypass the bridge. Nor is the use of a 4WD vehicle to cross the River considered feasible because of the risks involved and the inability to carry all of the equipment such as a stretcher in the 4WD vehicle. A second bridge would significantly reduce risks associated with disruptions to the ambulance service.

As for risks related to accessing the hospital, these other emergency service risks are characterised by low probability of occurrence but very high social consequences if they do occur. Moreover, they are the kinds of risk that no sections of the Ashburton population north of the River is expected to tolerate.

Interviews with representatives of the Police supported the contention that a second bridge would address present and future congestion on the existing bridge and have the benefits for the certainty of emergency services that have been discussed above.

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59 Taylor Baines, 2011, p.19.

60 Taylor Baines, 2011, p.20.

5.2.4 Personal health

Two aspects of personal health are relevant to social wellbeing - access to health and medical services, and encouragement for more active, healthy lifestyles by residents of Ashburton. Access to health services has been addressed above in Section 5.2.2.

The Ashburton District Walking and Cycling Strategy was developed in 2008 *"with the aim of encouraging walking and cycling in the Ashburton District as safe, healthy and active modes of transport, provided for in a way that acknowledges the diverse needs of the different communities within the District."* The stated objectives of the Strategy include -

- to develop safe walking and cycling facilities and environments;
- to provide an effective network that ensures accessibility and connectivity;
- to improve the physical road environment through reduced use of motorised transport;
- to promote walking and cycling as safe, healthy and active modes of transport and recreation for the community and visitors; and
- the ADC to provide leadership in the advocacy of walking and cycling in the District.

A second bridge has the potential to address several of these objectives explicitly - by adding to the existing network of walking and cycling routes in the vicinity of the town (increasing connectivity) and also by improving the physical road environment of existing roads through improved design[61] and by spreading the traffic load and thereby reducing the absolute level of motorised transport on each particular route.

At the present time, the principal cycle route connecting Ashburton with Tinwald runs alongside SH1 and uses 'clip-on' features on both sides of the bridge, shared with pedestrians. Numerous comments were made during interviews about the inadequacies of the existing bridge crossing for cyclists. For example, members of the road cycling club do not use the bridge clip-ons as they have not been well maintained - *"too many cracks and glass on the cycle way"*; for linking up with the recently developed track to Lake Hood along the southern side of the River - *"has difficult connections getting down onto the riverside track and requires people to get across to the west side of SH1 in order to access the bridge"*; others see the existing bridge with its clip-ons as *"a weak link in the network"; "the combined walking/cycling clip-ons are a choke point"; "not easy for two cyclists travelling in opposite directions to pass each other"; "mobility scooters can create a virtual blockage because they are so slow".*

Notwithstanding these issues, the cycling/walking routes associated with the bridge *"are used a lot; lots of school kids walk and cycle across them"*[62]*.* However, most of those interviewed about the second bridge options expressed the view that a second bridge option at the southern end of Chalmers Avenue, with appropriate pedestrian and cycling provision,

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61 e.g. segregated cycle paths/walkways, cycle lanes or sealed shoulders

62 For example, it was noted particularly that during Terms 1 and 4, it is common for Intermediate School pupils living in Tinwald to cycle to school.

would be a significant enhancement to the network. It would be important to ensure that such a second crossing does not pose a barrier to east-west cycling and walking traffic along the southern bank of the River. In this regard, the Landscape and Visual Assessment recommends[63] that *"riverside trails and cycleways could be incorporated into the design of the underside of the bridge, providing quality permanent thoroughfare under the bridge from adjacent trails and from the bridge approach pathways."*

These social benefits clearly accrue to residents living on both sides of the River.

5.2.5 Amenity values in residential areas and public places

The construction of the new bridge and access road may create the risk of adverse effects on the residential amenity of households living close by. These risks include the potential for temporary intrusive noise and vibration, and loss of air quality (dust nuisance), as well as permanent changes to the local landscape, and the ability of landowners to develop their properties.

Subsequent use of the new bridge and access road by vehicular traffic may also create the risk of similar adverse effects for these nearby households (noise and vibration, vehicle emissions). However, the associated changes in traffic patterns and traffic volumes may also change the levels of adverse amenity effects in some other locations such as the residential streets of east Tinwald and the commercial precinct nearest to the existing bridge and SH1 in central Ashburton.

Most of these assessments summarised here rely on the technical assessments of other disciplines - noise and vibration, air quality, and landscape and visual effects.

Noise and vibration effects

An assessment of road-traffic noise has been prepared against the requirements of the relevant New Zealand Standard, NZS 6806[64] which addresses the potential for effects on existing houses, schools, marae and other locations defined as "protected premises and facilities". The assessment report asserts that the standard *"sets reasonable criteria for road-traffic noise levels, taking into account health issues associated with noise and other matters. On this basis, it is considered that road-traffic noise levels in compliance with NZS 6806 Category A should generally result in acceptable noise effects."*

The assessment concludes that noise exposure at any potentially sensitive locations near the new bridge and new urban road will comply with the Category A standard. For receptors adjacent to existing roads that will experience increased traffic volumes, noise mitigation in the form of re-surfacing streets with asphaltic concrete is expected to result in reduced road-traffic noise compensating for the 1 dB increase expected as a result of increased traffic volumes[65].

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63 At Section 6.4.1, p.25.

64 URS, 2013. Draft Noise Asssessment. Section 5.1, p.13.

65 Ibid. Section 5.3, p.13.

The Vibration Assessment carried out by Opus addresses the risks to residential amenity (human comfort and annoyance) and structural or cosmetic building damage to buildings that might result from either construction activities for the proposed bridge and new road or the passage of heavy goods vehicles (HGVs) once the bridge is in operation.

With regard to the proposed second bridge, the two construction activities that have the most potential to generate troublesome vibrations are piling associated with the construction of the bridge piers and general road construction[66].

The report identifies 42m as the minimum separation distance required to avoid the risk of structural damage to nearby buildings from pile driving, and notes that the closest residential properties to the Ashburton River are sited about 80m from its banks. For general road construction, the assessment estimated 41m as the critical threshold separation distance likely to trigger complaints and 19m as the critical threshold separation distance likely to trigger structural damage from the use of heavy road-construction equipment likely to generate the highest magnitude vibrations. In this worst case, the analysis highlights that limiting excavation work to the sealed portion of the road corridor would limit the number of existing dwellings at risk of structural damage to three, although the complaint threshold would still be likely to be exceeded at 10 of the nearest 11 dwellings. Therefore, it concludes that considerable care will need to be taken when selecting and operating equipment for earthwork activity along the new section of road. Based on past experience, the assessment notes that *"for situations where vibration related disturbances are temporary, infrequent and of short duration, such as road construction, vibration levels that are above the complaint threshold .... can be tolerated if the startle factor is reduced and fears of damage to property allayed. Therefore, for the ASUB project, it will be very important that there is engagement with occupants of the properties ..... to keep them well informed as to when and for how long vibrations will occur during construction activities and to provide reassurances regarding the damage potential of the vibrations."* [67] A specific mitigation strategy and options are set out in Section 7.5.2.1 of the Vibration Assessment Report for "existing dwellings" and in Section 7.5.2.2 for "future dwellings". Whichever options are adopted, the Social Impact Management Plan (and/or the Construction Vibration Management Plan) must include explicit requirements for close consultation with potentially affected property owners and a mechanism for reaching agreement on the necessary mitigation.

With reference to the risk of experiencing vibrations from passing HGV traffic on adjacent properties, the assessment focussed on a range of projected traffic increases by 2026. It concluded that, without any mitigation, the risk of cumulative vibration effects associated with the top end of the projected range - 1400 HGV per day - would make adverse comments possible. However, the recommended mitigation - sealing of the new road and progressive re-sealing of Chalmers Avenue - would result in road roughness levels *"about 25% less than at present so adverse comment can be avoided."*[68]

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66 Opus, 2013. Vibration Assessment. Section 7.2

67 Ibid.

68 Ibid. Section 7.3.

Air quality effects

Discharges to air from the proposed second bridge and access road include fugitive dust emissions from earthworks during construction and vehicle emissions from traffic flows on the local roads. These discharges can affect the local air quality at adjacent properties. Construction of the new bridge will affect residential properties along Chalmers Avenue and the new road between the bridge and Grahams Road.

Only houses located within the distance of 10 – 25 metres from the carriageway could experience some increase in air pollution levels associated with vehicle emissions. However, the increase in concentrations of vehicle emitted contaminants has been assessed as insignificant[69]. The air quality report notes[70] that domestic home heating is the main contributor to PM_{10} ambient air concentrations in Ashburton.

Fugitive dust emissions from construction sites consist of heavy particles that will fall within 100 metres to perhaps 300 metres from the source. Dust effects could potentially occur in the vicinity of the construction activities and the actual deposition rates will depend on the amount of dust and nature of the dust disturbed at the source. All 23 existing dwellings on land associated with the proposed designation or immediately adjacent lie within 300m of the proposed new road alignment. Fugitive dust emissions have the potential to create a range of adverse impacts, from nuisance impacts (e.g. increased levels of dust deposition on household surfaces; contaminating washing on external washing lines; etc.) to health impacts (e.g. local residents with existing respiratory conditions).

Dust mitigation measures need to be included in the Construction Management Plan (CMP). According to the air quality assessment, if appropriate measures outlined in the air quality assessment[71] are implemented as necessary during construction, fugitive dust emissions from construction activities can be kept within the acceptable thresholds and trigger levels. Consultation with residents living within 300m of the proposed road, to identify the existence of particular sensitivities and to discuss appropriate mitigation options prior to construction, should be provided for in the Social Impact Management Plan referred to in Section 5.4 below and/or the corresponding CMP.

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69 It was estimated that the effect of the new bridge on the local air quality will be insignificant due to the moderate traffic volume on SH1 and low to moderate traffic flows on the local roads. Igor Kvatch, Opus, pers.comm. 7 August 2013.

70 Opus, 2013. Assessment of Effects on Air Quality. Section 7.1, p.19.

71 Ibid. Section 8.2, p.21.

Landscape and visual effects

For the neighbourhood likely to experience the greatest degree of change - the area between Grahams Road and Carters Terrace - the Landscape and Visual Assessment concludes[72] that *"Visually, in the long term, the road would have the potential to 'fit' within the broader and immediate landscape running either parallel or perpendicular to property boundaries, existing road alignments, shelterbelt patterns or water course patterns."* It needs to be remembered that there is a possibility that the character of the landscape in the immediate vicinity of dwellings closest to the proposed road may well have changed substantially - from rural to urban - prior to the road being constructed, thereby creating a distinctly different baseline for comparison (see further discussion of this below).

As noted in the Landscape and Visual Assessment[73], the southern approach to the proposed bridge, from Carters Terrace northward, bisects land occupied by two dwellings but then passes through paddocks before entering pine plantation, flood banks and flood bank protection planting. As a result, landscape changes caused by road construction will to a large extent be masked from the very large majority of dwellings in this area - *"Likely views of the road and its associated embankment from Carters Terrace and adjoining properties will also be infrequent and will be partially obscured by existing shelterbelts."*

While the Landscape and Visual Assessment Report does not appear to conclude that significant adverse visual effects are likely, it suggests[74] several approaches to mitigating the effects of potential change - minimising the removal of existing trees (shelter belts and mature specimen trees) and providing new plantings where removal is unavoidable, a measure which could be adopted well in advance of actual road construction. *"Design measures for the Southern Link Road should include maintaining, where possible the designed road height at surrounding ground levels and limiting visual disturbance caused by earthworks. During construction, where swales are to be built, they should be re-grassed as quickly as possible to lessen temporary scarring. Roadside tree planting should be installed within the roadside swales to give consistency and character to the ASUB route.*" Mitigation recommendations in the Landscape assessment reinforce the significance of embedding in the design of the new road provisions for cyclists and pedestrians[75] which, in addition to being landscape features, also confer safety and health benefits for their future users.

Lighting effects

As explained in Section 4.3, the new road south of the proposed bridge will pass through a 300m band of vegetated land before reaching what is presently an area of rural-residential character running along the eastern margins of Tinwald. This is currently a low-light environment. However, with the residential intensification expected as a result of rezoning much of this land, the area will become progressively similar to other residential areas on

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72 Opus, 2013. Landscape and Visual Assessment Report. Section 5.2, p.18.

73 Ibid. Section 5.3, p.18.

74 Ibid. Section 7.2.

75 Ibid. Section 6.3.1, p.24.

the fringes of Ashburton. Street lighting has two kinds of effects: providing night-time safety for all users of the street (a social benefit) and creating the potential risk of light spill into neighbouring residential dwellings (a potential adverse effect). The Lighting Assessment explains[76] that lighting requirements at intersections (or roundabouts) are greater than along straight roads. However, the lighting proposed will comply with current standards for the control of light spill and upward glare, and therefore will result in the same lighting environment as that experienced by other Ashburton urban residents.

Development prospects for land adjacent to the second bridge access road

The new road which will link the second bridge to Grahams Road passes through an area which has already been re-zoned Residential C and Residential D, as described in Section 4.3. As noted in that section, the extent of subdivision depends on the level of access of any subdivided land to a public reticulated sewage network. In normal subdivisions, the developer of the land is responsible for installing the underground services (including reticulated sewage) and constructing the street network before vesting the resulting infrastructure in Council.

Although the primary driver for such subdivision is the re-zoning which has already occurred, the proposed new road, with associated infrastructure, has the potential to catalyse higher levels of subdivision within the densities permitted by the District Plan zones. Since the new road connects directly to the second bridge, future residents either side of the new road will have amongst the highest levels of accessibility to the widest range of services and amenities[77] of any suburban location in Ashburton. It is logical to conclude that the proposed second bridge and access road will have a significantly positive influence on future property values in this location, to the benefit of existing and future owners.

As noted in section 4.3, there are currently 23 dwellings on parcels of land in the re-zoned area between Grahams Road and the River. This number could potentially increase to between 120 and 130 at full development.

5.2.6 Community identity

Although Tinwald is a distinct part of Ashburton, the reliance of its residents on services provided predominantly within the main township area north of the River means that it is undoubtedly part of Ashburton. The second bridge will enable a far stronger sense of connectedness for residents on both sides of the River. More importantly, the proposed second bridge will remove many of the disparities in accessibility to socially important destinations in Ashburton currently experienced by residents in the southeast sector compared with fellow residents of Ashburton elsewhere.

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[76] Opus, 2013. Lighting Assessment. Section 6.2, pp15-16.

[77] In central Ashburton and also at Lake Hood.

5.3 Social effects requiring mitigation

The potential for adverse social effects is most likely to be associated with construction-related effects or with concerns about pedestrian safety and HGV-induced vibration on Chalmers Avenue.

Mitigation of construction-related social effects

For construction-related adverse effects on residential amenity, the most likely are associated with the use of excavation equipment during new road construction and the associated risk of fugitive dust emissions reaching nearby properties. Mitigation measures for these adverse effects have been suggested in section 5.2.5 above. They are described in more detail in the corresponding technical assessment reports.

Mitigation of operation-related social effects

Mitigation measures to address safety concerns along Chalmers Avenue and the risk of HGV-induced adverse effects from vibration have been suggested in section 5.2.5 above. They are described in more detail in the corresponding technical assessment reports.

5.4 Social Impact Management Plan

In contemporary social impact assessment, it is becoming accepted as good practice that a Social Impact Management Plan (SIMP) will be developed and implemented to address identified adverse effects and also, in some aspects, to provide assurance of identified and projected beneficial effects. Such a SIMP is analogous to other management plans normally prepared for the construction of new projects including new roading projects, such Construction Environmental Management Plans. A SIMP should therefore be prepared at the time of detailed planning for the construction of the second bridge and access road.

SIMPs will usually incorporate requirements for communications between the construction contractors and residents most likely to be affected, both in terms of expectations regarding consultation and prior notification, and in terms of formal complaint procedures.

SIMPs typically will include -
- A summary of the social issues and effects to be addressed (benefits and adverse impacts) to be addressed by the Impact Management Plans;
- Specific management plans detailing mitigation objectives, outcomes and responsibilities for decision making and for taking action;
- An outline of on-going public involvement associated with governance (e.g. CRG) and accountability provisions for the Impact Management Plan;
- A framework for monitoring, including selected indicators, responsibilities for data collection, and reporting requirements; and
- An outline of funding provisions associated with monitoring activities, mitigation initiatives and plan management.

6 DISCUSSION AND CONCLUSIONS

The proposed bridge location and road were selected to address a specific set of objectives, namely:

- safety issues accessing the state highway,
- congestion on the existing bridge and state highway,
- future growth in Tinwald and increasing traffic numbers,
- pedestrian and cycling issues, and
- land transport route security.

These objectives have clear social implications.

The advent of a second bridge and associated access road will definitely influence the choice of route that many Ashburton residents make for trips which involve crossing the Ashburton River. As a result, traffic patterns will alter, and traffic flows along certain roads north and south of the River will alter.

As discussed in the previous section of this report, there is a predominance of beneficial social effects which will be experienced by a substantial number/proportion of Ashburton residents to varying degrees. It is also likely that some comparatively adverse social effects will be experienced in some localities of Tinwald and eastern Ashburton, either as a result of road construction activities or as a result of increases in traffic volumes which would not have occurred without the second bridge.

Overall, this assessment concludes that the scale of social benefits substantially outweigh the adverse social effects. Nevertheless, such adverse effects should be the focus of future monitoring effort aimed at establishing whether or not proposed mitigation measures are adequate.

In light of the above, it is interesting to reflect that the Community Reference Group, when asked to rank criteria for assessing options, attached most importance to the following social effects - in order of priority:

- benefits to overall traffic flows - in/out/around town;
- route security - having an alternative route;
- safety of people;
- impact on property values of landowners near the proposed new route;
- accessibility; and
- noise pollution in suburban areas.

The overall conclusion of this social impact assessment is that the advent of a second bridge and access road in the location proposed for designation will be substantially enabling of the communities of Tinwald and Ashburton in providing for their social wellbeing. For many trips, a second bridge will remove a barrier to accessibility across the Ashburton River for many of the town's households. By removing such a barrier, the proposed second bridge will result in safer trips and a level of accessibility to destinations in the centre of Ashburton for residents living southeast of the existing bridge similar to that enjoyed by

residents of suburban and peri-urban areas elsewhere around Ashburton. With reference to the previous comparative assessment of alternatives, the proposed option is likely to be the option which achieves the highest degree of such enablement.

APPENDICES

Appendix 1: References for conceptual framework on social wellbeing.

Carrying out a social impact assessment within this statutory framework requires attention to a conceptual framework for thinking about social well being, and the factors which might contribute to people's experience of social well being. Such a conceptual framework, which has been adopted in a range of other SIAs[78] and social research contexts in New Zealand in recent years comes from social indicators work in the OECD[79] and closely parallels the framework adopted by the Ministry of Social Development[80]. The OECD study identified key areas of social life which shape well being:

- the state of physical and mental health;
- the quality of housing, shelter, neighbourhood and living place;
- opportunities for formal education and lifelong learning;
- opportunities for income, employment and the quality of working life;
- opportunities for leisure and recreation, time to enjoy them, and access to quality outdoors/open space;
- access to public facilities, transport, communications, and access to goods and services;
- the quality of the physical environment, a clean environment with aesthetic appeal;
- influences on family life, social attachment, social contact, interaction and support;
- influences on participation in community and society, including participation in organised groups and social activities; and
- influences on personal safety, public safety, autonomy or freedom from too much risk.

In conducting this SIA, consideration was given to whether or not the proposed project is likely to have consequential effects on any of these areas of social life, and for which communities of interest this is most likely to be the case.

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78 e.g. Assessment of the effects of project Aqua on local communities and development of community mitigation proposals, for Kurow Aqua Liaison Committee, 2003; SIAs carried out on several wind farm proposals between 2005 and 2007 and on the Wairau Valley HEPS in 2005; social analyses carried out for assessing the social implications of commercial retail strategy development in Christchurch City between 2003 and 2005, social assessment carried out on a Structure Plan proposal in North Shore City in 2007.

79 OECD, 1998.

80 e.g. Ministry of Social Development, 2003.

Appendix 2: Trends in usually resident population and permanently occupied dwellings *(Source: Statistics NZ, 2006. Census of Population and Dwellings)*

Note: As a result of the Canterbury earthquakes which disrupted the 2011 Census, the 2006 census data remains the most recent accurate data on population trends. Earliest results from the 2013 Census are not expected to be released publicly until December 2013[81]

Area	2001 population[82]	2006 population	% change '01-'06
Ashburton District	25443	27382	7.6%
Ashburton urban area	11496	11931	3.8%
Northern peri-urban	1182	1530	29.4%
Southern peri-urban	396	549	38.6%
Southeast of Tinwald, including Lake Hood	213	312	46.5%

Area	2001 dwellings[83]	2006 dwellings	% change '01-'06
Ashburton District	10164	10926	7.5%
Ashburton urban area	4932	5073	2.9%
Northern peri-urban	417	558	33.8%
Southern peri-urban	141	189	34.0%
Southeast of Tinwald, including Lake Hood	81	111	37.0%

81 http://www.stats.govt.nz/Census/about-2013-census.aspx. Accessed 6 August 2013.

82 Population = Usually Resident Population

83 Dwellings = Permanently Occupied Private Dwellings

Appendix 3: Travel to work data from the 2006 census *(Source: Statistics NZ, 2006. Census of Population and Dwellings)*

Travelling north across the River to work:

Ashburton Census Area Unit	Tinwald residents travelling to work there (2006)	Total employed persons there (2006)	% from Tinwald	Plains-Railway residents travelling to work there (2006)	% from Plains-Railway
Ashburton Central East	315	2091	15%	45	2%
Ashburton Central West	180	1482	12%	42	2%
Hampstead	12	171	7%	3	-
Netherby	33	237	14%	3	-
Allenton	102	1152	9%	15	<1%
Fairton	129	1044	12%	9	<1%
Total Ashburton Urban	771	6177	12%	117	2%

Travelling south across the River to work:

Ashburton Census Area Unit	Residents travelling to Tinwald to work (2006)	% of Tinwald employed persons	Residents travelling to Plains-Railway to work (2006)	% of Plains-Railway employed persons
Ashburton Central East	30	6%	3	-
Ashburton Central West	12	2%	0	-
Hampstead	39	7%	6	1%
Netherby	24	4%	0	-
Allenton	84	16%	9	2%
Fairton	33	6%	0	-
Total Ashburton Urban	222	42%	18	3%

Appendix 4: Locations of pre-schools

ABC Developmental Learning Centre Allenton, Harrison Street, Allenton, Ashburton
Allenton Free Kindergarten, Allens Road, Ashburton
Ashburton Baptist Community Preschool, 310 Tancred Street, Hampstead, Ashburton
Ashburton Baptist Early Learning Centre, 8 Eton Street, Ashburton
Ashburton Montessori Preschool, 176 Chalmers Avenue, Ashburton
Ashburton Playcentre, 45 Park Street, Ashburton
Aubrey Mason Free Kindergarten, 136 Thomson Street, Tinwald, Ashburton
Childs Play Nursery, 23 Main South Road, Tinwald
Hampstead Free Kindergarten, Cambridge Street, Ashburton
Hannah N Henry Early Childhood Centre, 27 Elizabeth Street, Ashburton
Merle Leask Free Kindergarten, 34 Davis Crescent, Ashburton
Phoenix Preschool, Walnut Avenue, Ashburton
Thomas Street Kindergarten, Thomas Street, Ashburton
Tiddlywinks Preschool, 21 Archibald Street, Tinwald

Appendix 5: Locations of support services for particular interest groups
(NB: With the exception of IDEA Services, all those listed below are located north of the River in Ashburton.)

For the elderly:

Age Concern, 206 Cameron St, Ashburton
Ashburton Senior Citizens, 155 Tancred St, Ashburton
Ashburton Senior Citizens Charitable Trust, 206 Cameron St, Ashburton
Grey Power Ashburton, 163 Thompson St, Ashburton
Total Mobility Service - RSA, 12-14 Cox St, Ashburton

For people with disabilities:

CCS Disability Action, Mona Square, Ashburton
DPA NZ - National Assembly of People with Disabilities, 155 Tancred St, Ashburton
IHC, 155 Tancred St, Ashburton
Mobility Scooter & Wheel Chairs, 189 Company Rd, Ashburton
Handiscope Cente, 24 Creek Rd, Ashburton
IDEA Services, Archibald St, Tinwald

For people who are unemployed:

Work & Income, Corner Cass & Moore Sts, Ashburton

For people on restricted incomes:

Ashburton Red Cross Shop, 310 Havelock St, Ashburton
Presbyterian Support, 215 Tancred St, Ashburton
Salvation Army Family Store, Corner Cass & Wills Sts, Ashburton
Save the Children Ashburton, 90 Tancred St, Ashburton

Appendix 6: Locations of primary health services
(NB: With the exception of Tinwald Medical Services, all those listed below are located north of the River in Ashburton.)

Allenton Medical Centre, 69 Harrison Street, Ashburton
Ashburton Chiropractic Centre, 132 Burnett Street, Ashburton
Ashburton Eyecare, 177 Burnett Street, Ashburton
Ashburton Family Planning Clinic, Cnr Oak Grove & Elizabeth Street, Ashburton
Ashburton Hospital Pharmacy, 28 Elizabeth Street, Ashburton
Ashburton UFS Dispensary, 182 East Street, Ashburton
Dental Care (Ashburton), Cnr Elizabeth Street & Oak Grove, Ashburton
Dr C Ryan, 254 Moore Street, Ashburton
Dr E Wood's Surgery, Cnr Cass & Havelock Streets, Ashburton
Dr Gummer Dental Surgery, 131 Walnut Avenue, Ashburton
Dr J Wall's Surgery, Cnr Cass & Havelock Streets, Ashburton
Dr M Tarry, Cnr Sealy, Havelock & Winter Streets, Ashburton
Dr M Wackrows Surgery, Cnr Sealy, Havelock, & Winter Streets, Ashburton
Dr P Spark, 254 Moore Street, Ashburton
Dr Penny Holdaway, 6 Park Street, Ashburton, Canterbury
Injury Management, 306 Havelock Street, Ashburton
Jane Eaton Physiotherapy, 118 Alford Forest Road, Ashburton
Jim Aldridge Physiotherapist, 28 Creek Road, Ashburton
Moore Street Medical Centre, 254 Moore Street, Ashburton
Netherby Pharmacy, 214 Chalmers Avenue, Ashburton
Oak Grove Consulting Rooms, Cnr Oak Grove & Elizabeth Streets, Ashburton
P Rumping Dental Surgery, 85 Burnett Street, Ashburton
Physio Plus, 6 Cameron Street, Ashburton
Searles Allenton Pharmacy, 67 Harrison Street, Ashburton
Tinwald Medical Services Ltd, 33 Main South Road, Tinwald,
Unichem Ashburton Pharmacy, Cnr Burnett & East Streets, Ashburton
Wise's Pharmacy, 155 Wills Street, Ashburton