

26. SOCIAL

Overview

From a social perspective, the communities of the Project area have experienced increasing population growth, particularly post-earthquake displacement of residents from Christchurch City, increasing housing demand in the main settlements and for small allotments in other rural and peri-urban areas. The Project will add to these changes currently underway, and encourage further urban development in Templeton, Prebbleton, Lincoln and more particularly Rolleston by extending the commuter belt and metropolitan labour market, creating demand for further rural subdivision.

From the point of view of the people and identifiable communities in the Project area, MSRFL and CSM2 should bring significant social benefits. These include reduced congestion, improved travel times and greatly enhanced safety along an otherwise dangerous stretch of main highway. In addition, there will be improved access to work and a range of services including education, health and emergency services, and retail and commercial services.

The Project design sought to mitigate a number of potentially negative social effects, including; property access and displacement effects on individuals. Many of the negative social effects would occur during construction and involve temporary disruption and amenity effects such as noise and vibration and dust emissions.

The aspect of social severance was carefully considered and it was found that even in the short term (post-construction), community severance is unlikely to be a significant issue for any of the existing rural communities and town-based communities in the project area. In addition, in the long term it is anticipated that the Project will reinforce the identity of Prebbleton and Rolleston as the focus of urban development. The State highway will cut through the Weedons area, however change in social boundaries of small communities is common and the existing social boundaries are notably blurred.

Active transport, considered an important component of social wellbeing, will be enhanced through proposed links through CSM2 and the Little River Rail Trail which has been achieved through design features. While the cycleway will not extend along all of the CSM2, there is still likely to be an increase in commuter cycling to Lincoln, and there is the opportunity for a new cycling commuter route between Rolleston and Hornby.

26.1. Introduction

This chapter sets out an assessment of the social effects of the Project. The information in this chapter is drawn from the Social Impact Assessment (“SIA”) (Technical Report 13, Volume 3), as well as the findings of other technical assessments which are relevant in considering social effects.

Planning, construction and operation of the Project could potentially cause social effects on people throughout the impact area. Social impacts include the ‘human’ experiences of other effects, individually or in combination. As such, there may be overlaps with other AEE specialist

assessments, and these have been acknowledged in this chapter where relevant. However, an assessment of those effects has been kept to a minimum, with the social effects assessment focusing on concerns raised in respect of people's living experiences and day-to-day lives.

The Project has been assessed in terms of its overall implications on the social and economic wellbeing of the communities in the Project area. The assessment also included proposals for mitigating any negative social effects, which have been considered in the Project design process.

26.2. Existing social environment

26.2.1. Investigation and assessment process

The description of the existing social environment provides the basis upon which social effects are considered. The assessment used a standard SIA approach, which typically involves scoping the assessment, developing a profile of the affected area, assessing effects, and considering ways to mitigate negative effects and enhance Project benefits from a social perspective.

The SIA was informed by:

- records of consultation undertaken by the NZTA;
- preliminary SIA findings;
- site visits and observations at meetings; and
- interviews with key stakeholder groups.

26.2.2. NZTA policies on social effects

The NZTA has policies for the social and environmental management in the planning, construction and operation of State highway projects. Matters that must be addressed include:

- access and mobility, the ability of State highway projects to connect users to community educational, health and recreational facilities;
- community cohesion, particularly effects from accessibility and severance;
- environmental externalities, including air quality, noise and vibration;
- effects on culture and heritage, e.g. archaeological sites and people's customs;
- visual quality and urban design, the aesthetics of the built environment; and
- public health.

26.2.3. Description of the existing social environment

At a district scale, Selwyn's social environment is transforming through population growth. The post-earthquake displacement of residents from Christchurch City has increased housing demand in the main settlements and for small allotments in other rural and peri-urban areas. This has changed employment dynamics and commuter modes and routes.

For the purposes of profiling the existing social environment and assessing social impacts, the SIA identified the main community settlements affected by the Project, local impact areas, and areas directly affected by the Project. Therefore, the assessment area extended from south west Christchurch, where Hornby is the dominant commercial centre, to the towns of Rolleston and Lincoln, including the towns of Templeton and Prebbleton. In the rural or peri-urban area between Templeton and Rolleston, Weedons is the main rural community and there are other residential communities at Aberdeen and Claremont. The social environments of these areas were assessed as follows:

South-west Christchurch/ Hornby: Bounded by the Port Hills, Lyttelton Street, Blenheim and Main South Roads and the City boundary. This area has experienced a number of residential developments in recent years, particularly in Halswell, Wigram and Hornby. Population in 2006 was 35,241 and it is projected that there will be 10-12,000 new households and 200-300 hectares of business land developed in next 35 years. Both the Main South Road and SH75 become congested with traffic at peak periods. Residents have access to a diverse range of health and social services as well as the commercial centre at Hornby Mall which serves a wide catchment area, and is having associated growth issues.

Templeton: This town on the outskirts of Christchurch, 14 km west of the city on SH1 had a population of 1,572 in 2006, only a four percent rise over the previous ten years. It has a higher rate of unemployment than the district average, lower household incomes, higher dependence on income from government and lower access to motor vehicles. Residents have access to education and community facilities and there are businesses that service the local area and customers from further afield, which rely on passing traffic to a limited extent.

Prebbleton: One of the earlier settlements in Canterbury, this town is located 15 km south west of central Christchurch and 7 km south of Hornby on the arterial route between Christchurch and Lincoln. Population increased rapidly during the first decade of this century with new residential subdivisions trebling the extent of the settlement, having a population of 3,024 in 2006. This was an increase of 81 percent over the previous ten years and more than twice that of the Selwyn District (36%). It has a younger population with higher proportions of employers and self-employed persons than that of nearby towns. Many commute to work in Christchurch and other parts of the Selwyn District, due to proximity to job opportunities. The town has a good range of local amenities, with a commercial centre and other businesses. It is predicted that the population is likely to reach 4,775 by 2026, requiring the construction of 1300 dwellings.

Rolleston: Rolleston is 22 km south of Christchurch on the Main South Road at the junction of the South Island Main Trunk and Midland rail lines. Recent population growth has far exceeded that of the Selwyn District and recorded 3,822 residents in 2006. The population was younger than the district's population in 2006. Many residents commute to Christchurch to work, with over three fifths employed full time. It is anticipated to grow strongly over the next 3 years, from 7000 currently to about 20,000, as it attracts young couples wanting a large section on stable land.

Rural and peri-urban areas: Adjoining Prebbleton is an area of 70 residences at Aberdeen, comprising large homes on large sections. Residents use the Prebbleton town centre and services as their local centre. They also make use of Hornby, Lincoln and Halswell for community facilities. East of SH1 is a residential subdivision known as Claremont which was established six years ago. With no clear community affiliation residents travel to Rolleston, Templeton and further afield to Hornby, Lincoln and Halswell for services.

Weedons: Established on the Main South Road from Christchurch with about 297 rate paying residences, Weedons forms a community of around 700 residents but does not have clear social boundaries.

Area adjoining MSRFL, eastside of SH1: This area involves properties along the alignment from the intersection with the CSM2 alignment just north of Robinsons Road. The area has a combination of farming areas, lifestyle blocks and businesses, which vary in the degree to which they derive custom from passing motorists.

Land between SH1 and Jones Road: This narrow strip of land is bounded by SH1/ Main South Road, Jones Road to the north-west and extends from Currags Road to Weedons Road. All properties within it are currently accessed from SH1/ Main South Road. It is isolated further by an existing NZTA designation and the South Island Main Trunk.

26.2.4. Description of existing social services, networks and movements

The assessment undertook social mapping in order to understand school zones, participation in sports and community organisations, and access to employment in relation to SH1. This information was important for assessing potential for social severance. Assessment of social services, local networks and movements is summarised below:

Health services: There are a range of health services that service the people living and working in the impact area, with services principally located at the main centres of Templeton, Rolleston, Lincoln and Hornby, with people travelling by vehicle to access them at these centres.

Education services: There are pre-school education and childcare providers in multiple locations. With no kindergarten in Rolleston, the Templeton kindergarten has children from the rural area across SH1 including Aberdeen and Claremont. There are two high schools servicing the impact areas. Lincoln High School has an enrolment zone reaching from West Melton and Prebbleton in the north to Little River in the south. Hornby High School services the Hornby area. There are also a number of primary schools, most with enrolment zones. Templeton's zone stretches from West Coast Road in the north to Shands Road in the south east. Rolleston's zone is bounded by Kerrs, West Melton and Hoskyns Roads on the north side of SH1 and bounded by Weedons, Boundary and Lowes Roads on the south side of SH1. Clearview School is also located in Rolleston and its zone is bounded by Brookside, Selwyn and Boundary Roads. Nearly all families living in the Weedons School zone send their children to this school and most travel by car. Broadfield Primary School has no zone and pupils come from Rolleston, Burnham, Templeton, Lincoln and

Prebbleton, mostly by car. Prebbleton School has an enrolment zone bounded by Hamptons, Main South and Marshs Roads with most pupils living within walking distance.

Emergency services: These are widely dispersed over the Selwyn District, with those based in smaller towns relying primarily on volunteers. Some emergency services are available from Christchurch City. In addition, the rapid response team is based in Sydenham. Volunteer fire brigade services are at Darfield, Lincoln and Rolleston. Police stations are located in these areas as well. Ambulance stations operated by volunteers are located at Leeston, Darfield and Rolleston. The St Johns station is based in the IZONE complex in Rolleston and covers an area from Hei Hei to Methven and The Old West Coast Road to Lincoln.

Community services: Rolleston Community House operates several health and social service agencies and provides a meeting space for community groups. There are also “One Stop Shops” at the library/ service centre facilities of Selwyn District Council at Darfield and Leeston providing office space for agencies to come to the district. There are also a range of services available from Hornby Heartlands.

Active transport: Walkers and cyclists in the Selwyn District face a number of challenges including some areas without footpaths, lack of safe space along rural roads, few off-road walking tracks, lack of facilities connecting subdivisions and towns, and low levels of street lighting. For cyclists, challenges include lack of cycle lanes and space on rural roads, narrow roads in newer residential areas, speed on rural roads, insufficient cycle stands, potholes and rough surfaces on the shoulders of roads, narrow bridges and cycle unfriendly roundabouts. While there is some commuting of long distances, the use of active transport modes in the District was falling steadily, according to census data, from 1996 to 2006. The Little River Rail Trail was established for recreational users and tourists, but is also now used by school children and as a commuter route with commuter cycling to and from Lincoln increasing in recent years. The Selwyn District Council has developed a Walking and Cycling Strategy and Action Plan to address these challenges and promote a transport system that supports active transport and recreational uses. Christchurch City also has a Cycling Strategy.

Sport and recreation: There is an events centre at Lincoln and Rolleston has a community centre, and a recreational complex including an aquatic centre which is being developed. Prebbleton has a community hall and several sports clubs, Templeton has a golf club and community centre. The Weedons Domain and Golf Club are focal points and the cricket club is the biggest in the wider area. As mentioned above, there is the Christchurch to Little River Rail Trail - a combined cycle and walkway.

26.3. Assessment of social effects during construction

Construction activity, although temporary, will affect the local communities and particularly those near construction activities.

The main social effects arising from construction activities are disruption to communities relating to:

- construction noise and vibration effects;
- air quality effects;
- property access effects; and
- local road network and road safety effects.

Some of these effects will be consequent on environmental effects that are assessed in specific Technical Reports, including noise and vibration, dust emissions and traffic. In practice, these sorts of amenity effects can also have social consequences as they reflect the amenity values and perceptions of affected people.

26.3.1. Construction noise and vibration

Construction noise and vibration will have an effect on local community wellbeing and quality of life, especially those living, working or gathering in proximity to the construction works. Day time construction noise will generally not affect residents beyond some nuisance / disturbance during particularly noisy works, although people who stay at home during the day (including people who work from home, are sick, or who work night shifts) could be disproportionately affected by long periods of noisy works. A proportion of noisy works will be undertaken during the night, in particular during bridge construction. This will have an effect on local communities within close proximity to these sites. Effective noise management is therefore essential to reducing these noise effects as far as practicable.

Chapter 17 of this AEE provides the assessment of Construction Noise and Vibration of the Project, drawing on the Noise and Vibration Assessment (Technical Report 9).

26.3.2. Dust effects

Dust can affect human health and be a nuisance to the surrounding public by causing deposits on and in houses, cars and washing. Dust may also impact on people's enjoyment of outdoor areas and cause perceived or actual health impacts. The assessment of air quality effects (Refer to Technical Report 10, Volume 3 and the summary in Chapter 18 of this AEE) describes potential sources of dust factors influencing dust generation. Management measures will be designed to minimise adverse dust effects on the local community, and in particular, ensure that the adverse effects of dust will be acceptable at sensitive receptors in the community, such as schools, pre-schools, and residential healthcare or retirement facilities.

26.3.3. Property effects

For the MSRFL, there is a land take to create the expanded roadway, with a loss of property access for some property along this stretch. With CSM2, a number of properties are required for the new highway, local road changes, landscape work and mitigation activities. This is likely to create

a disruption in peoples' patterns of movement, creating a level of disturbance, nuisance and stress. Of the 40 properties affected, some have been acquired by the Crown as mitigation and some landowners have already moved.

The negotiation around the properties has included outright purchase, partial purchase with reconfiguration of land and access ways in some instances, and relocation of activities such as horse training and business activity.

To avoid some properties becoming 'landlocked' the proposed solution includes a new rear access road that utilises existing local roads and private right of ways and a proposed extension of Berketts Drive. On the west side of Main South Road, there are a number of properties in a relatively narrow area between Main South Road and Jones Road between Weedons-Ross Road and Currags Road, 18 of which will lose their existing access. A new road is proposed along the railway line to provide new access to these properties from the west.

26.3.4. Construction effects on local road networks and road safety

During the construction process, some suburban and rural roads will be used for construction-related traffic. This can cause an inconvenience for those travelling by road in the vicinity. Concern from interviewees was raised about a possible increase in volume and number of heavy trucks accessing SH1 via Kirks Road, especially if the local quarry company gained contracts on the Project (outside the Project area). Construction works may also cause delays for commuting parents picking up children from schools or childcare. In addition, during construction there will be local road closures. It will be important that local people and schools are included in communication and liaison processes over the construction period. In addition, a Construction Traffic Management Plan will be prepared to manage the effects of construction traffic.

26.4. Assessment of social effects from the operation of the highway

The operation of the Project could potentially cause both adverse and positive social effects on people throughout the impact area. As with construction effects above, some of these effects will be consequent on environmental effects that are assessed in Technical Reports, including noise, air quality, visual effects, and traffic assessments. Other effects result from changes in patterns of activity and the movement of people to and through localities adjoining the highway. Also, social effects relate to the physical changes from the State highway that requires the acquisition of properties or parts of properties. The State highway also can cause social severance by cutting through social boundaries. These operational consequences fall under the following social effects:

- effects on physical and living environments;
- effects on community health, safety and wellbeing;
- effects on leisure and recreation values; and
- severance effects.

26.5. Effects on physical and living environments

In terms of the effect of the proposed Project on the sense of place and local character, the SIA considered the likely changes in urban development, commuting patterns and employment as a result of changes in congestion and travel times. In addition, the SIA briefly comments on the long term visual and landscape effects and operational noise effects.

Effects on urban development and form

The SIA assesses the effects of the Project on urban development and form within the context of the UDS. The UDS seeks to promote compact urban settlements rather than unconstrained urban sprawl, and also to give more emphasis to mixed-use urban environments, reducing to some extent the need for commuting at the local level. The Project will have the effect of encouraging urban development in some directions and also of forming a strong boundary to some activities.

In combination with earthquake effects already apparent, the Project will have an effect of further stimulating urban development in South West Christchurch (particularly Hornby) and Templeton, Prebbleton, Lincoln and Rolleston. These communities will benefit from the stronger transport linkages.

There is also very likely to be pressure for further development of lifestyle blocks and rural residential development, as far south as Leeston and Rakaia, as travel times lessen and with improved access to the airport. Furthermore, the development of Ashburton may be advanced as the improvements will cumulatively bring Ashburton closer to Christchurch and vice versa.

Effects on commuting patterns and employment

Reduced congestion on principal commuter routes will result in reduced travel times, which can be expected to influence individuals' future choices about opportunities for employment in relation to place of residence, increasing the range of possibilities within a unified metropolitan labour market area.

The Project is expected to attract significant volumes of traffic away from the existing main traffic corridors thereby reducing congestion and intersection delays along these routes. The changes in levels of congestion have been estimated to result in peak-hour time savings of 10-12 minutes when travelling by car from Rolleston to Brougham Street (in 2041). The potential social significance of this level of time saving was assessed by comparing the time saving with other activities on a daily basis. A reduction in the average daily time spent commuting could make a significant difference to the amount of time available for other activities. In addition, it was confirmed that commuters between Rolleston and Christchurch are already spending well above the national average (16 minutes daily) time commuting to work.

The gains to users of public transport services will be in terms of faster and more reliable travel times, as a result of substantially reduced congestion along Jones/ Waterloo Roads (with a proportion of commuter traffic diverted onto MSRFL/CSM2) and the possibility for 'express' bus

services using the MSRFL/CSM2 with correspondingly reduced travel times. In addition, school bus runs from Rolleston, Templeton and Burnham Schools to Breens Intermediate for technical classes will run faster with less traffic on the roads.

Visual effects

The Project will result in a visible change to the environment, resulting in a change in the amenity value and 'look and feel' of the area. The visual effects of the Project are outlined in Chapter 15 of this AEE and Technical Report 4, within Volume 3 of this application. This report acknowledges that travellers using the State highway/motorway and residents who live in close proximity to visually prominent sections of the Project will experience different kinds of effects. The visual report points out that in some specific locations close to the existing SH1 *"the existing neighbourhood amenity values are not high and consequently effects on visual amenity will be negligible because the receiving environment is not sensitive to these changes"*. Although it is acknowledged that in some areas effects on amenity values may be moderate.

Given the extent of change in the rural landscapes of the study area over the past decade, with considerable rural residential development all introducing built structures and night lighting, the visual effects of this Project post construction are not exceptional for an area so close to an urban boundary. The visual assessment identifies particular properties where mitigation planting is recommended to reduce visual effects of the Project in general and visual effects of acoustic fences. *"It is considered that the proposed mitigation will ensure effects are acceptable within the overall scale of the Project"*.

Operational Noise effects

The operational noise effects of the Project will have an effect on the quality of life of those living in close vicinity to the main alignment of the highway. The effects of operational noise levels (traffic) are outlined in Chapter 17 of this AEE and in Technical Report 8, Volume 3.

The expected changes to the noise environment are that 39 dwellings or "Protected Premises and Facilities" (PPFs) will experience reductions of between 1 and 5 decibels, while 11 PPFs will experience increases of between 2 and 4 decibels. The noise report describes the changes in operational noise levels of 1-2 decibels as "insignificant" and changes of 3-4 decibels as "perceptible". Therefore, most dwellings near the existing Main South Road are likely to experience considerable improvements in their ambient noise environment. While 11 dwellings near the proposed CSM2 will experience increases in ambient noise levels, these are unlikely to be particularly noticeable. In order for these dwellings to fall within Category A of the relevant noise standard, noise mitigation is proposed comprising noise barriers (fences of 1.8 m in height) and the use of Open Graded Porous Asphalt surfacing where appropriate.

26.5.1. Effects on community health, safety and wellbeing

The Project will result in noise and air emissions that will have a minor effect of the health and general wellbeing of those living in close proximity to the Project. However, the Project will also bring about significant improvements to road safety in the district and will improve access for emergency services to communities.

Air emission effects

Vehicle emissions and the potential adverse health impacts associated with these emissions are a potential impact relating to the operation of the Project. Air quality effects are outlined in Chapter 18 of this AEE and in Technical Report 10. The report on air quality indicates discharges of air pollutants from vehicles using the CSM2 and MSRFL are unlikely to cause instances exceeding national air quality standards. People living close to the proposed CSM2 alignment or the existing Main South Road corridor will have a slightly increased exposure to vehicle related contaminants, but will still be well below the relevant health based assessment criteria. The air quality assessment concludes that no mitigation or monitoring of air effects from vehicle emissions is required.

Road safety and local road network effects

According to Technical Report 2 (contained in Volume 3 of this application) the combination of grade-separated intersections and substantially reduced traffic volumes, will reduce the high crash rates along Main South Road (which have been recorded as 10% higher than typical) and address the temporary road safety concerns along Halswell Junction Road that result from a partially completed motorway project (CSM1). In addition, the intersections on Main South Road that currently experience the highest numbers of crashes will in future have less than half the current levels of traffic passing through them. The intersections on Halswell Junction Road will have a third less traffic passing through them. This reduction in death, injury and damage from crashes is potentially a significant contribution to enhanced social and economic wellbeing.

In addition, there are several areas where access onto busy roads will be improved, resulting in improved safety including Main South Road through Templeton (stretch between Islington and Robinsons Road). Reduced vehicle volumes on Main South Road through Templeton will also reduce the risks to cyclists and pedestrians wishing to cross Main South Road.

There could be an effect of an increase in the use of some local roads. In particular, there will be a moderate increase in traffic on Weedons Ross Road (50 to 100 vehicles per day in the short to medium term). Consultation with Weedons School has identified safety concerns regarding traffic passing the school. However, this increase is considered relatively insignificant and manageable in traffic terms.

Effects on Emergency Services

With the reduced congestion and traffic delays, it is expected that there will be improved time for emergency services attending to emergency events. Back up support from the City would be able to get to the rural areas more quickly. In addition, four-laning is safer overall for emergency vehicles, as drivers tend to stay in their lanes more and it is easier for an emergency vehicle to pass when compared to a two lane highway.

The rapid response team coming from Sydenham will benefit from the proposed over and underpasses which will help improve access and reduce response times for emergency vehicles. The highway will also support policing in Rolleston from officers based in Christchurch and for local police to respond to a major emergency in the City.

Safety exits and barrier gaps will be provided every 3 km to allow for emergency “u turns”, and is an important safety improvement in itself. A reduction in accidents will positively affect emergency services and the new layout with median barriers should help emergency services also.

26.5.2. Effects on leisure and recreational values

As outlined above, the Project is expected to reduce congestion and intersection delays along these routes resulting in estimated peak-hour time savings of 10-12 minutes. A reduction in the average daily time spent commuting could make a significant difference to the amount of time available for other activities, including leisure and recreation. The time saving will also assist those participating in sports activities.

The Project has both strengths and weaknesses when assessed in terms of effects on active transport (cycling and walking). The CSM2 will strengthen the connection between CSM1 and CSM2 and the Little River Rail Trail, as a cycle link has been designed from CSM1 along part of CSM2 to link with the Rail Trail at Springs Road, benefiting recreational cyclists and walkers. Weaknesses include no off-road route options for cyclists and pedestrians along the final part of the CSM2 alignment however alternatives are available on the local road network. In addition, the decrease in vehicular traffic along Springs Road will be offset to some extent by the corresponding increase in traffic along Shands Road.

26.5.3. Social severance effects

Social severance effects occur when patterns of movement of people are affected. People living, working, running a business, or recreating on either side of a State highway are potentially separated by the highway, creating a reduced ability for vehicles, pedestrians or cyclists to move safely and conveniently from one side of the highway to another. The effects of severance can flow into social and economic life as people change their patterns of relationships, from meeting each other informally to do business or recreate. Over time, the immediate effects of severance will change as communities adapt and new patterns of movement and social and economic life emerge.

The Project has potential both to cause social severance and reduce it. Social boundaries in the area of assessment are soft, with different boundaries for different networks and social facilities, so it is likely that the Project will lead to some redefinition of boundaries rather than cause severance. Social boundaries in peri-urban areas are typically dynamic with population changing and growing rapidly. In these instances, communities can adjust to change over time. It is possible however, that some older, longer term residents with a strong sense of place will experience a cumulative negative effect in respect to their sense of place and social identity.

In addition, the potential for severance is likely to be offset to a great extent by the proposed under/ overpasses of the Project, which provide safe vehicle, walking and cycling crossing points. Overall, in this respect and due to the closure of only one road, the potential for social severance is considered to be low. Furthermore, there is no evidence that there will be any long-term effect of social or economic disparities emerging either side of the State highway as a result of the Project.

26.6. Measures to avoid, remedy or mitigate actual or potential adverse effects on the social environment

A number of mitigation measures are outlined below to avoid, remedy or mitigate adverse effects on people and communities. These can be implemented at Project design stage, during the approval process, through construction traffic management and upon completion of construction.

26.6.1. Mitigation of construction effects

Once the construction methodology has been finalised, a CEMP will be developed to address the effects of noise and vibration, air quality (dust), property access and local road network and road safety effects along with a communications plan. A Draft CEMP has been prepared and is included in Volume 4 of the application documents.

Construction noise and vibration effects, although temporary in duration, will be proactively managed to achieve acceptable social outcomes by utilising the best practicable option approach and the relevant criteria of Construction Noise Standard NZS 6803:1999. These will be implemented through a CNVMP. Other management measures such as proactive community liaison, communication management will be undertaken.

Effects on air quality during construction works will be managed under an AQMP, as part of the overall CEMP, which will outline measures to manage dust.

Effects of changes to the local road network and construction traffic will be managed through a CTMP. It will be important that people affected by construction traffic are addressed in the Communications Plan.

26.6.2. Mitigation of loss of property access off Main South Road

To mitigate against loss of property access off Main South Road, an access road on the western side of the Main South Road from Weedons Ross Road to Curraghs Road is proposed. In addition, on the eastern side of Main South Road it is proposed to form access through a new rear access road that utilises existing local roads and private right of ways and a proposed extension of Berketts Drive.

26.6.3. Mitigation of amenity effects

Amenity effects to be mitigated include noise (construction and operation), visual and air quality (dust from construction and vehicle emissions from operations). Mitigation measures proposed in the relevant technical assessments are summarised here:

Noise: Options for mitigating operational noise effects include, the type of asphalt used and acoustic fences. Construction noise effects, as identified above, will be addressed in a CNVMP, which will identify particular dwellings and locations where particular attention is needed to ensure relevant construction noise limits are met. Where these limits cannot be met, after implementing best practicable mitigation measures, site specific noise management plans will be developed.

Visual: Twenty dwellings require mitigation of the visual effects of the Project, while six dwellings require mitigation of the visual effects of acoustic fences. The mitigation will include limiting vegetation removal, minimising earthworks and designing structures integrated into the landscape. Other aspects include protecting valued viewshafts, planting for visual screening of the motorway and to avoid headlight glare; choosing plant species to reflect local landscape character and management of light spill from highway lighting.

Air quality: No mitigation or monitoring of vehicle emissions will be required as there are unlikely to cause exceedances of any relevant air discharge assessment criterion or to cause adverse effects on human health or the environment. Dust will be managed in accordance with an AQMP, as outlined above.

26.7. Monitoring and Management

Communication will be the key tool to manage social effects, and key communication components of this Project will include a community liaison group (CLG), a Project liaison person, a Communications Plan, a public reporting/ feedback mechanism and excellent information systems. These matters are addressed in the proposed conditions for the designations in Chapter 30 of this AEE.

26.8. Conclusion

From the point of view of people and identifiable communities in the impact area, the Project should bring significant social benefits. There will, however, be some localised negative social

effects experienced by a number of individuals and businesses and one small rural community (Weedons). However, most of the negative effects can be mitigated to ensure the effects will be no more than minor.

The positive benefits include reduced congestion, improved travel times and greatly enhanced safety along an otherwise dangerous stretch of main highway, along with improved access to work and a range of services. In addition, effects on active transport are an important component of social wellbeing, and the Little River Rail Trail will likely be enhanced by proposed links with the Project. Even in the short term, community severance is unlikely to be a significant issue for any of the existing rural communities and town-based communities.

On the negative side are direct effects on individuals and businesses who will be displaced or experience temporary disruption. There also will be some amenity effects experienced along the new highway but they are manageable with proven mitigation techniques. It is considered that the residual effects will be minor and communities are likely to adjust relatively quickly.

Longer term, the new State highway will add to current changes already underway in urban form and further encourage urban development in Templeton, Prebbleton, Lincoln and Rolleston.