

Provisional Social Community and Recreation Impacts

Amelia Linzey and Jo Healy

May 2020

**make
everyday
better.**

Context

- Assessment and scoring was completed prior to the MCA workshop and confirmed following the workshop discussion.
- This scoring is **provisional** - this is the initial MCA process that feed into a **draft MCA report**, following public engagement processes (and further social research) the MCA will be reviewed and updated.
- The social impact assessment and scoring for initial MCA workshop has been undertaken based on site visit, desk top research and Waka Kotahi consultation (up to time of workshop) that was primarily completed during the corridor options assessment phase as of the **25th May**.
- It is considered that at this phase further social research and review of further Waka Kotahi consultation is required to confirm assessment and scoring therefore these scores are **provisional**.
- Following the workshop further social research will be conducted including:
 - Stakeholder Interviews
 - Resident Surveys (including follow up calls to a percentage of participants)
 - Joint site visits with local iwi
- This information along with findings from consultation are not included in this draft MCA report (as scoring was completed May 2020)
- Findings from social research completed will be included along with confirmation of scoring in the final Social Impact MCA report and final MCA update and review (post-consultation).

Methodology

Framework

Assessment and scoring is guided by the framework and processes provided by both the International Association of Impact Assessment Social Impact Assessment Guidelines and Waka Kotahi Social Impact Assessment Guidelines. The SIA process has used these guidelines to consider the potential social impacts of the Project, on the basis of the existing community, the nature of the proposed works, and the consequential social impacts anticipated.

The International Association of Impact Assessment (IAIA) defines a Social Impact Assessment as:

'...the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions'

The methodology adopted for this SIA has been developed to identify and predict the key social impacts of the operation of O2NL from the perspective of those potentially affected by it to support the route refinement process and selection of a preferred option.

Criteria for Assessment

The project briefing was to consider:

“ the social / community and recreational impacts on local communities, including community severance / opportunities, and construction phase impacts ”

Using IAIA and Waka Kotahi SIA guidelines the following areas of potential social impact were selected and assessed (these are considered to make up the components of the project briefing and were scoped as potential impacts):

- **Impacts on way of life** – How people carry out and get to their activities of day living including consideration of access to and between communities and places / centres where people live, work and play;
- **Impacts on community cohesion** – Connectivity between people including potential impacts relating to severance of communities and loss of communities (through the physical impact / land take of the project);
- **Impacts on sustaining oneself** – How people sustain themselves both financially and providing for themselves (such as growing food) including viability and feasibility of economic production in areas where people live and work; and
- **Impacts on the quality of the environment** – This includes people’s well-being (related to changes to the environment), sense of place and identity and changes to the character and amenity of living environments and character of communities.

Considerations

The assessment of potential social impacts is considered as either: **positive** or **negative** on the basis of whether the anticipated social consequences will either enhance or detract from the community values, social processes or social infrastructure.

For the assessment of options it was considered that unless specified positive impacts were related to the general project rather than differentials for specific options therefore the focus was on potential negative impacts

Social impact assessment and scoring for initial MCA workshop has been undertaken based on site visit, desk top research and Waka Kotahi consultation (up to time of workshop) that was primarily completed during the corridor options assessment phase.

In all cases it is noted that the **potential** impacts have the potential to be reduced, ameliorated or mitigated by detailed design and implementation of management and/or mitigation strategies (ie noise barriers, screening) that will be advanced in the full SIA in the preferred option detailed design phase.

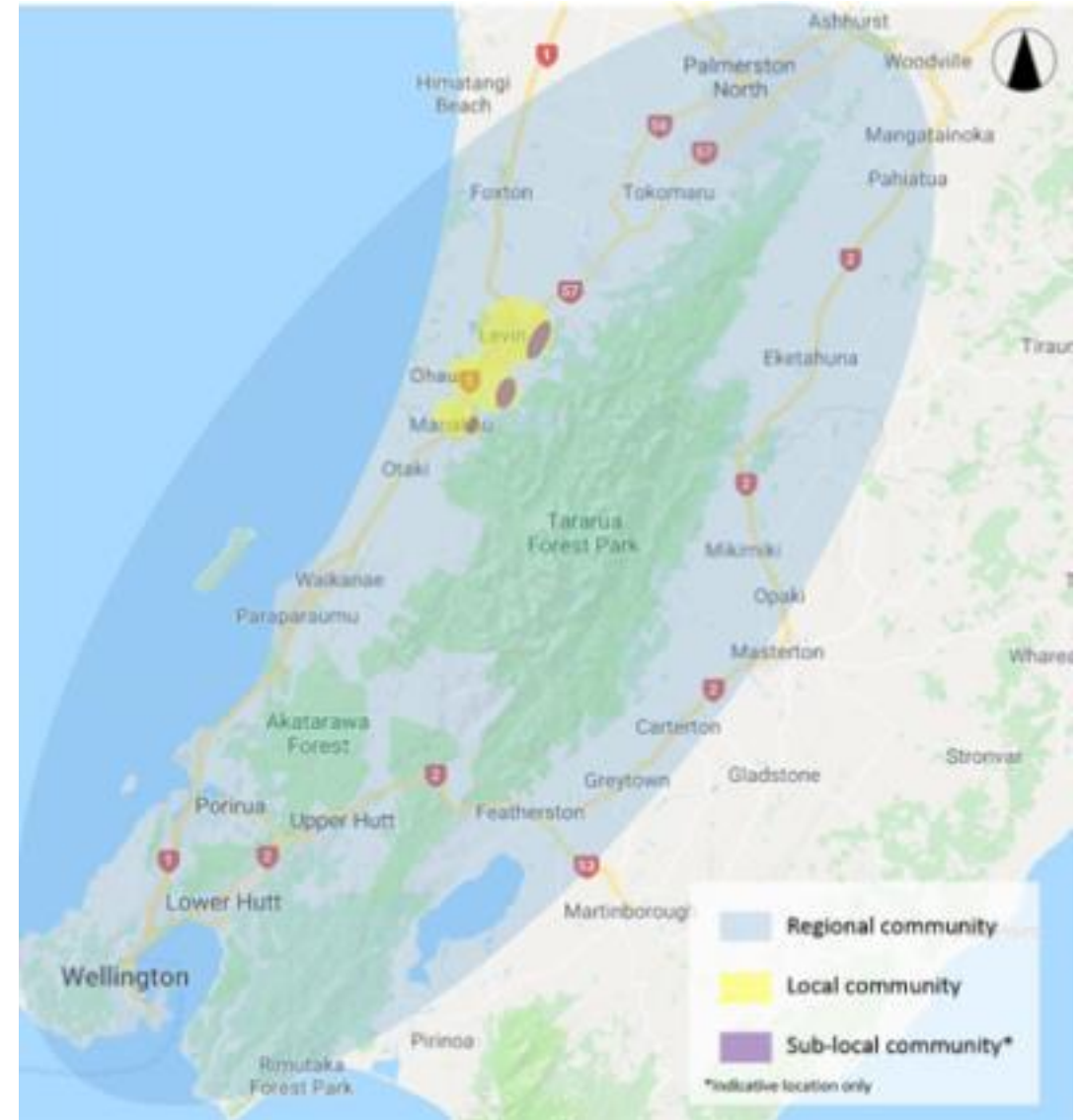
For this assessment consideration was for the communities that the corridor intersected with – regional effects would not be impacted differently by the different corridor alignments

Study Area

In the previous SIA, impacts were assessed at a Regional, Local and Sub-Local level.

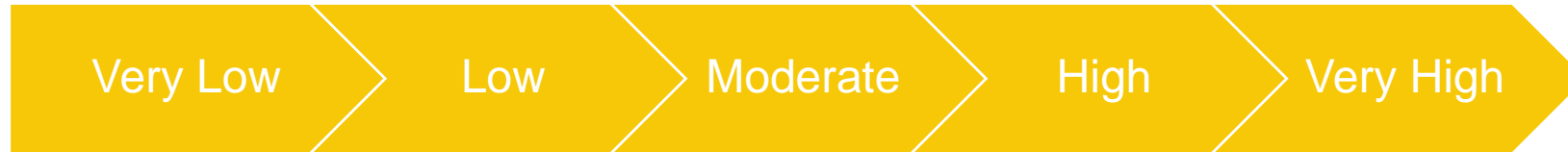
For this MCA assessment impacts will be primarily sub local and where applicable local (see map)

This assessment does not consider impacts at a Regional level; this stage of route refinement is focused on the specific alignment within the identified 300m corridor and as such it is considered that potential differential impacts between options are most likely to occur at a sub-local level (and in some cases local), with all alignment options having fairly similar impacts at a regional scale.



Social Impact Scoring

For consistency the scores entered into the MCA are the same for all specialists, to reach these score the social impacts were assessed using the following scale and translated into MCA scoring:



This Scale can be positive or negative but for this assessment scoring focusses primarily on social costs and consider negative impacts (unless explicitly identified).

At each level the assessment considers the following factors:

- Duration – likelihood of being temporary or permanent
- Extent or scale of impact for community – how much of the community is likely to experience the impact
- Severity of impact - what the severity of the preliminary impact is likely to be / how much it will affect those involved at a community level

MCA Evaluation and Scoring

For the purposes of the Route Alignment MCA the social impact assessment has been applied to the MCA process and will be scored as follows:

Score	Description
1	The option presents few difficulties on the basis of the criterion being evaluated and may provide significant benefits in terms of the attribute.
2	The option presents only minor aspects of difficulty on the basis of the criterion being evaluated, and may provide some benefits in terms of the criterion.
3	The option presents some aspects of reasonable difficulty in terms of the criterion being evaluated and problems cannot be completely avoided. There are few apparent benefits in terms of the criterion.
4	The option includes clear aspects of difficulty in terms of the criterion being evaluated, and very limited perceived benefits.
5	The option includes significant difficulties or problems in terms of the criterion being evaluated and no apparent benefits.

Assessment

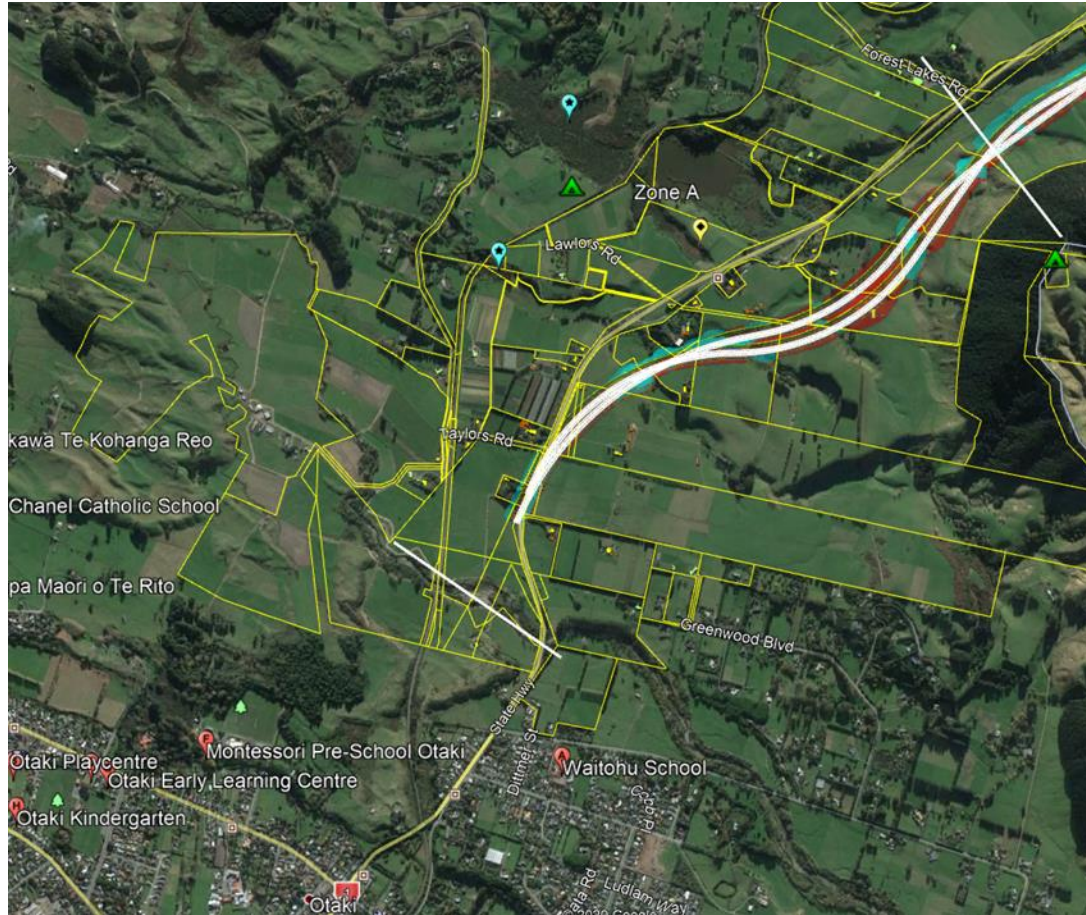
Social Community and Recreation Impacts

Benefits

The overall benefits are for every alignment and are as follows:

- Way of life – provision of walking and cycling facilities, reliable commutes between towns (improved resilience of roads, management on traffic volumes and reduced crashes)
- Health and wellbeing – safer roads, reduced social consequences of death and serious injury crashes, active travel modes
- Quality of environment – Less traffic or opportunity to slow traffic on current SH1 where it travel through a village/town opportunity to improve town centre environments
- Social cohesion – opportunity to connect town/village centres where SH1 currently dissects it and improved ability to move between communities
- Sustaining oneself – more resilient roads for businesses dispatching or collecting goods from south of Levin

Zone A



Existing Environment

- Sparsely populated
- Rural environment
 - Lifestyle near current SH1
 - Agricultural properties
- Closest schooling and amenities - Ōtaki
- Properties are located between SH1 and Tararua Ranges

Zone A

Assessment

- Both options assessed as 2
- Individual rather than whole community impacts
- Quality of environment – for residences between existing SH1 and new corridor – view, rural feel, noise
- Access changes/restrictions have potential impacts on:
 - Connectivity to communities (potential for severance) - sub local and local communities
 - Way of life - changes to commuting to school, work, services
 - Connections within properties where it is important for economic wellbeing and sustaining oneself
- No large social differentiators between options -but will be dependent on access solutions and visibility and noise of new corridor

Zone B



Existing Environment

Southern Section - Sparse rural properties

Northern section

Developing residential/lifestyle communities/neighborhoods off Nikau Lane, Mountain View Drive, Manakau Heights Drive - many sections yet to be developed

Rural and lifestyle community off South Manakau Road, Corbetts Road and Waitohu Valley Road

South Manakau Road access to walks within Tararua Forest park

Closest schooling and services Manakau (need to confirm which communities this area connects/identifies with) - larger services in Ōtaki and Levin – Waitohu Valley Road connects to Ōtaki

Zone B

Assessment

- Potential effects at neighbourhood (street communities) and community level (connection to Manakau)
- Option present similar effects but at a range of scales hence the different scores
- Green – 4 due to potential to sever existing neighbour communities
- Cyan – 3 still some severance but more in area yet to be developed
- White – 2 issues remain however better opportunity to keep neighbourhoods in tact

Quality of environment – views, noise, rural lifestyle

Access changes/restrictions:

- Connectivity to communities (potential for severance) - sub local and local
- Way of life - changes to commuting to school, work, services
- Connections within properties where it is important for economic wellbeing and sustaining oneself

Overall impact will be dependent on access solution this may improve or worsen the potential effects – particularly if it restricts access to forest park for wider community and local access to properties, work, education etc

Zone C



Existing Environment

Northern Section –rural properties; lifestyle, agriculture and horticulture

Southern section

- Developing residential/lifestyle communities/neighborhoods off Manakau Heights Drive and Honi Tapua Street - many sections yet to be developed
- Rural edge of Manakau village

Schooling (primary) and local amenities Manakau - larger services in Ōtaki and Levin

Zone C

Assessment

Both options score 2

Potential effects at neighbourhood (street communities) and community level (connection to Manakau)

Options present similar effects no major differentiators (note the section at the southern part of the zone may be slightly higher for Manakau heights/Honi tapua st community/residents)

Far enough back from the main part of Manakau village to limit village severance impacts

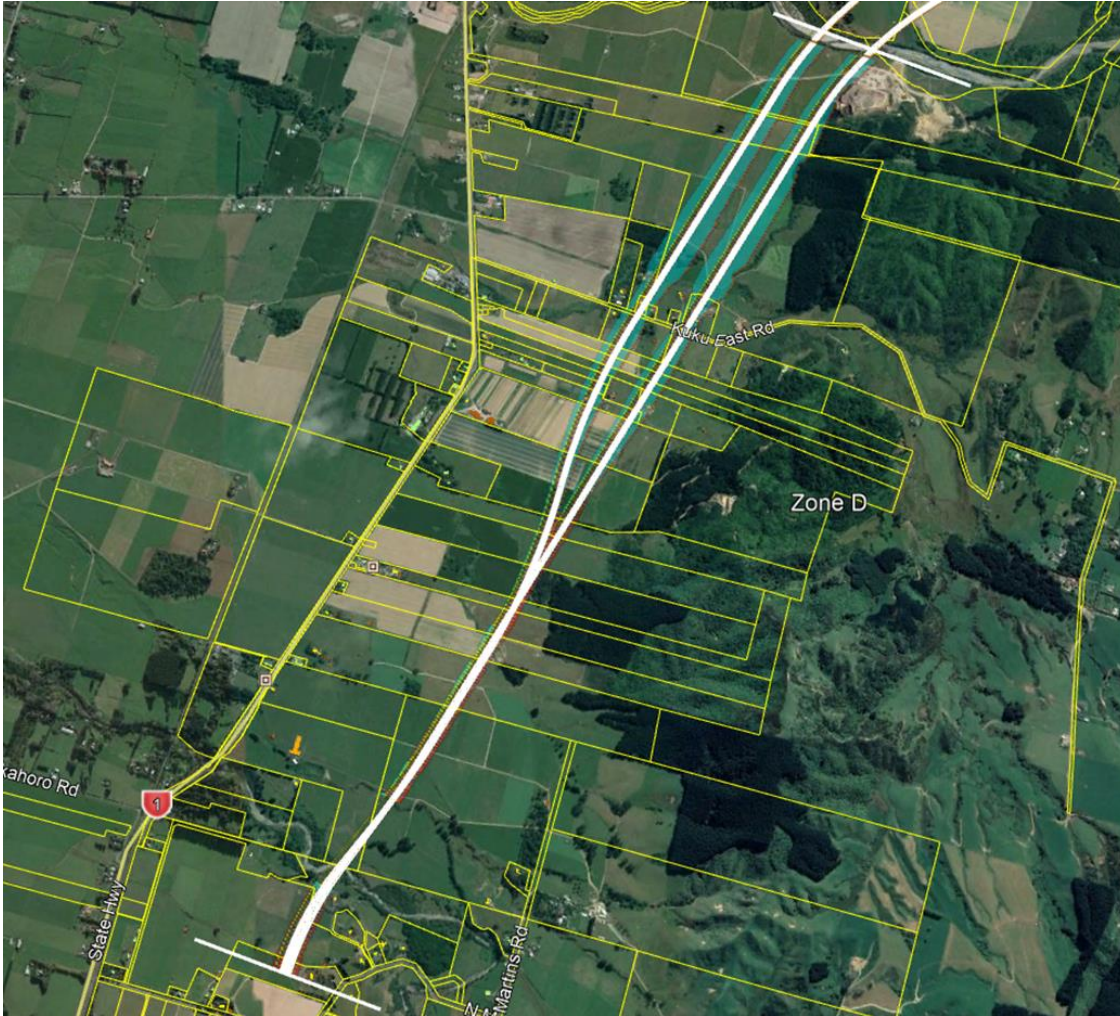
Quality of environment – views, noise, rural lifestyle

Access changes/restrictions:

- Connectivity to communities (potential for severance) - sub local and local
- Way of life - changes to commuting to school, work, services
- Connections within properties where it is important for economic wellbeing and sustaining oneself

Overall impacts will be dependent on access solutions

Zone D



Existing Environment

Rural:

- Lifestyle
- Agricultural and horticultural
- Community off Kuku East road

In general small spread out population

Closest schooling and services Ōtaki (need to confirm which communities this area connects/identifies with)

Schooling and services Manakau and Ohau - larger services in Ōtaki and Levin

Zone D

Assessment

Individual rather than whole community effects

Dark Blue – 1 – appears to be better placed at boundaries causing less disruption to way of life and sustaining oneself

Cyan -2 – more severance of properties causing more disruption to way of life and sustaining oneself

Access changes/restrictions:

- Connectivity to communities (potential for severance) - sub local and local particularly off Kuku East Road Way of life - changes to commuting to school, work, services
- Connections within properties where it is important for economic wellbeing and sustaining oneself

Not assessed as large social differentiators between options - will be dependent on access solutions

Zone E



Existing Environment

- Rural:
 - Lifestyle
 - Agricultural
 - Horticultural
- Rural area east of Ohau and Muhunua East farming community east of proposed corridor
- Closest schooling and services Ohau (need to confirm which communities this area connects/identifies with) – likely to access other services in Levin
- Recreation opportunities at and around river

Zone E

Assessment

Both options assessed as 3

Main issue severance of individual properties and changes to way of life and sustaining ones self

Quality of environment – change of view, noise and rural lifestyle where road is close

Access changes/restrictions:

- Connectivity to communities (potential for severance) - sub local and local particularly off Muhunoa East
- Way of life - changes to commuting to school, work, services
- Connections within properties where it is important for economic wellbeing and sustaining oneself

Not assessed as having social differentiators between options - will be dependent on access solutions and management of noise, visual impacts

Zone F



Existing Environment

- Rural and lifestyle properties
- Small communities or more densely residential around parts of Kimberly, Arapaepae and Tararua Road
- East of Kimberly community and south east of Levin
- Schooling and services in Levin, need to understand what communities this area identifies

Zone F

Assessment

All options scored 3

Potential disruption to neighbourhood community on Arapaepae Road and Kimberly road

Quality of environment for those that will be living in close proximity between SH57 and new corridor

Reduced connectivity (depending on access) for community east of corridor to Levin and Kimberly development

Potential social impacts due to severance within properties where it is important for economic wellbeing and sustaining oneself

No major social differentiators between options - will be dependent on access solutions

Consider opportunity from here north to have walking and cycling on both sides of the corridor to provide opportunity for the eastern community to walk and cycle and connect into Levin for work school and recreation.

Zone G



Existing Environment

- Eastern edge of Levin
- Agricultural and horticultural lots
- Future development area – (Taraika Development) masterplan includes housing and services including school
- Closest schooling and services currently in Levin (need to confirm which communities this area connects/identifies with)
- Access to Trig walkway, BMX track off Denton Road and Waiopu Reserve off Queen Street to the east of the corridor

Zone G

Assessment

All options are scored 2 :

- Close to SH57 so less of a barrier to eastern community (providing access to Queen Street is provided – key recreational walkway)
- Less residential more horticultural type land
- Impacts on property abilities to work/live off land – sustaining selves
- Connections within properties where it is important for economic wellbeing and sustaining oneself
- Gladstone Green development – assessment on existing social environment not future state and does preclude development – no major social differentiators between options to alter scoring (option close to SH57 allow more available area to develop).

No social differentiators between options

Consider option of providing cycleway on both sides of corridor to improve environmental amenity and connectivity – allowing community east of corridor to cycle to school/work etc

Consider what is done with land between SH57 and new corridor could be public amenity

Zone H



Existing Environment

- Eastern edge of Levin
- Smaller horticultural (mainly) lots – produce shops and residences – service SH57 traffic and Levin
- Closest schooling and services currently in Levin (need to confirm which communities this area connects/identifies with)
- Access to Trig walkway, BMX track off Denton Road and Waiopahu Reserve off Queen Street to the east of the corridor

Zone H

Assessment

Similar to Zone G

All options are scored 2 :

Close to SH57 so less of a barrier to eastern community (providing access to Queen Street is provided – key recreational walkway)

Few residences more horticultural type land

Impacts on property abilities to work/live off land – sustaining selves

Connections within properties where it is important for economic wellbeing and sustaining oneself

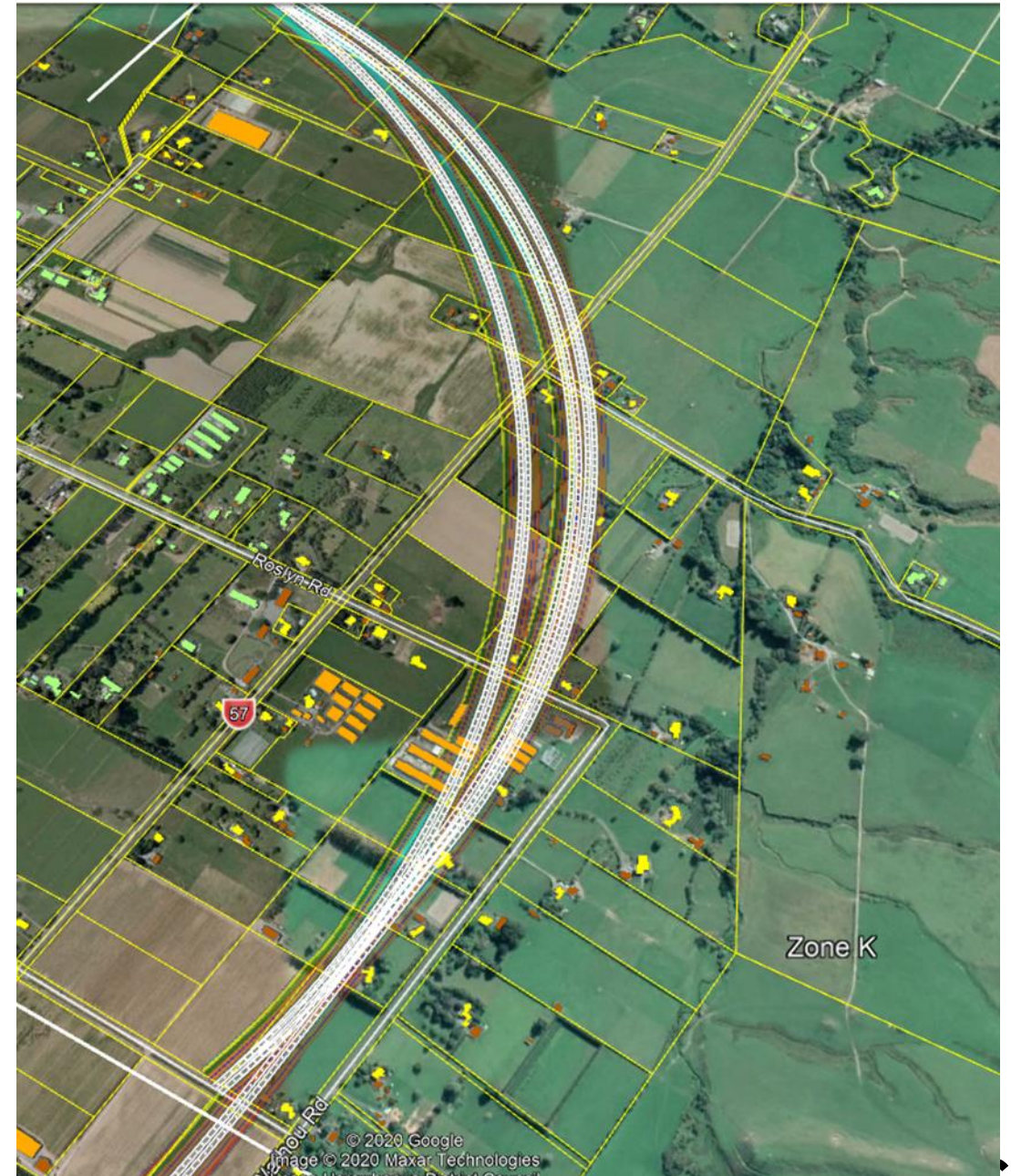
No social differentiators between options

Consider option of providing cycleway on both sides of corridor to improve environmental amenity and connectivity – allowing community east of corridor to cycle to school/work etc

Zone K

Existing Environment

- North eastern semi rural/lifestyle environment - north eastern edge of Levin
- Smaller horticultural/agricultural lots
- Closest schooling and services Levin (need to confirm which communities this area connects/identifies with)



Zone K

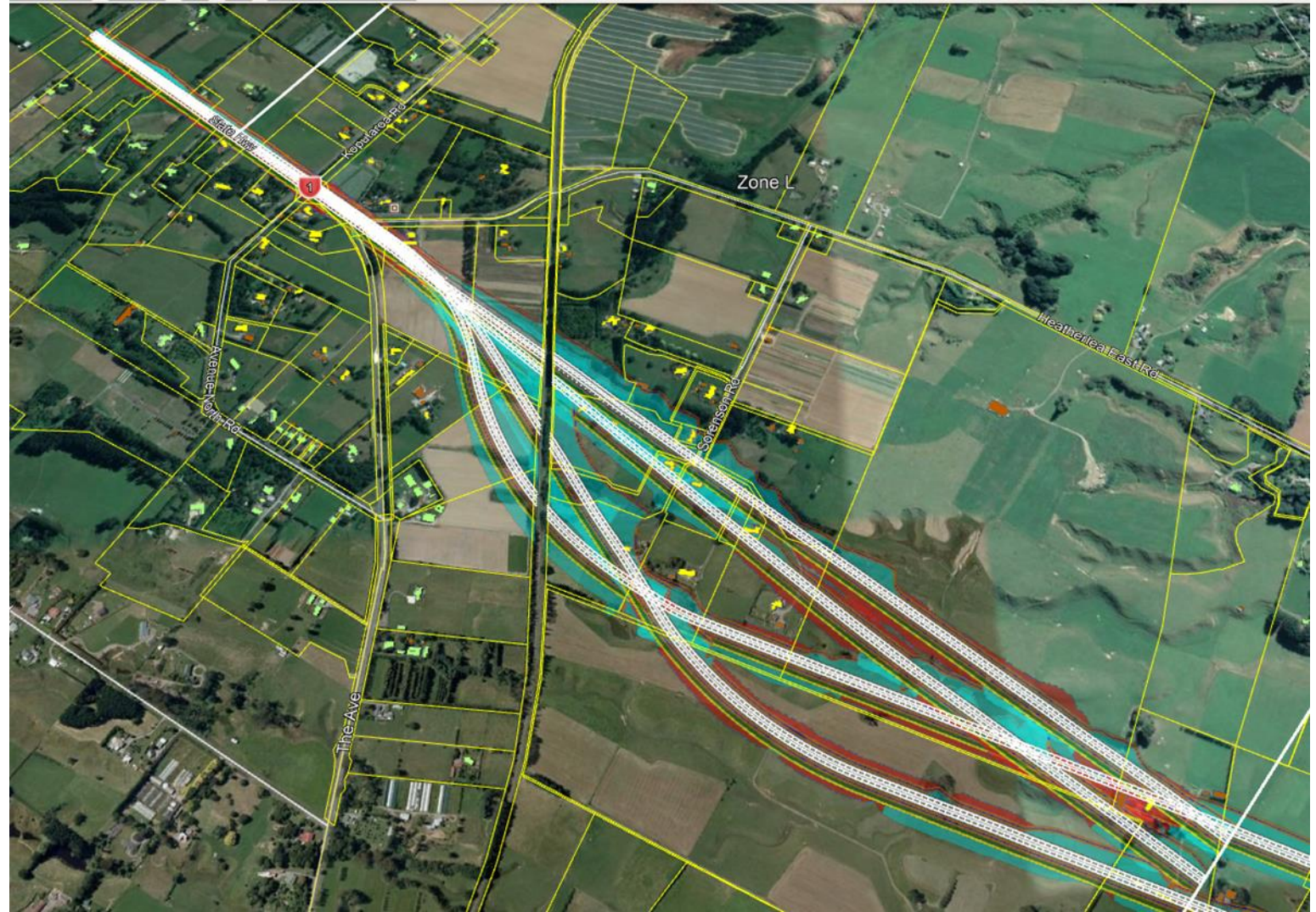
Assessment

- All options are scored 4 :
 - Creates physical barriers between community east of Project and Levin
 - Potential access issues for Waihou Rd/ Rosalyn Road
 - Strip of properties wedged between SH 57 and new corridor – decreased quality of environment
 - Impacts on property abilities to work/live off land – sustaining selves
- Access changes/restrictions:
 - Connectivity to communities (potential for severance) - sub local and local – Waihou Road and connection to Levin
 - Way of life - changes to commuting to school, work, services
 - Connections within properties where it is important for economic wellbeing and sustaining oneself
- Consider option of providing cycleway on both sides of corridor to improve environmental amenity and connectivity – allowing community east of corridor to cycle to school/work etc

Zone L

Existing Environment

- North eastern semi rural/lifestyle environment - north eastern edge of Levin
- Some horticultural and agricultural properties
- Sorenson Road neighbourhood
- Closest schooling and services Levin (need to confirm which communities this area connects/identifies with)



Zone L

Assessment

Purple and Green: 4 – severance issue - Sorenson Road neighbourhood

Orange and Black: 3 – some of the same severance issues – but being further south maintains more of the neighbourhood

Quality of environment – view, noise, lifestyle (quiet street versus busy road)

Access changes/restrictions:

- Connectivity to communities (potential for severance) - sub local and local
- Way of life - changes to commuting to school, work, services
- Connections within properties where it is important for economic wellbeing and sustaining oneself

Overall scoring will be dependent on access solutions and landscape buffering

Provisional Social Community and Recreation Impacts

Interchanges and Local Roads

Amelia Linzey and Jo Healy

3rd June 2020

Context

- Assessment and scoring was completed prior to the MCA workshop and confirmed following the workshop discussion.
- This scoring is **provisional** - this is the initial MCA process that feed into a **draft MCA report**, following public engagement processes (and further social research) the MCA will be reviewed and updated.
- The social impact assessment and scoring for initial MCA workshop has been undertaken based on site visit, desk top research and Waka Kotahi consultation (up to time of workshop) that was primarily completed during the corridor options assessment phase as of the 3 **June 2020**.
- It is considered that at this phase further social research and review of further Waka Kotahi consultation is required to confirm assessment and scoring therefore these scores are **provisional**.
- Following the workshop further social research will be conducted including:
 - Stakeholder Interviews
 - Resident Surveys (including follow up calls to a percentage of participants)
 - Joint site visits with local iwi
- This information along with findings from consultation are not included in this draft MCA report (as scoring was completed May 2020)
- Findings from social research completed will be included along with confirmation of scoring in the final Social Impact MCA report and final MCA update and review (post-consultation).

Methodology

Framework

Assessment and scoring is guided by the framework and processes provided by both the International Association of Impact Assessment Social Impact Assessment Guidelines and Waka Kotahi Social Impact Assessment Guidelines. The SIA process has used these guidelines to consider the potential social impacts of the Project, on the basis of the existing community, the nature of the proposed works, and the consequential social impacts anticipated.

The International Association of Impact Assessment (IAIA) defines a Social Impact Assessment as:

'...the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions'

The methodology adopted for this SIA has been developed to identify and predict the key social impacts of the operation of O2NL from the perspective of those potentially affected by it to support the route refinement process and selection of a preferred option.

Criteria for Assessment

The project briefing was to consider:

“ the social / community and recreational impacts on local communities, including community severance / opportunities, and construction phase impacts”

Using IAIA and Waka Kotahi SIA guidelines the following areas of potential social impact were selected and assessed (these are considered to make up the components of the project briefing and were scoped as potential impacts):

- **Impacts on way of life** – How people carry out and get to their activities of day living including consideration of access to and between communities and places / centres where people live, work and play;
- **Impacts on community cohesion** – Connectivity between people including potential impacts relating to severance of communities and loss of communities (through the physical impact / land take of the project);
- **Impacts on sustaining oneself** – How people sustain themselves both financially and providing for themselves (such as growing food) including viability and feasibility of economic production in areas where people live and work; and
- **Impacts on the quality of the environment** – This includes people’s well-being (related to changes to the environment), sense of place and identity and changes to the character and amenity of living environments and character of communities.

Considerations

The assessment of potential social impacts is considered as either: **positive** or **negative** on the basis of whether the anticipated social consequences will either enhance or detract from the community values, social processes or social infrastructure.

For the assessment of options it was considered that unless specified positive impacts were related to the general project rather than differentials for specific options therefore the focus was on potential negative impacts

Social impact assessment and scoring for initial MCA workshop has been undertaken based on site visit, desk top research and Waka Kotahi consultation (up to time of workshop) that was primarily completed during the corridor options assessment phase.

In all cases it is noted that the **potential** impacts have the potential to be reduced, ameliorated or mitigated by detailed design and implementation of management and/or mitigation strategies (i.e. noise barriers, screening) that will be advanced in the full SIA in the preferred option detailed design phase.

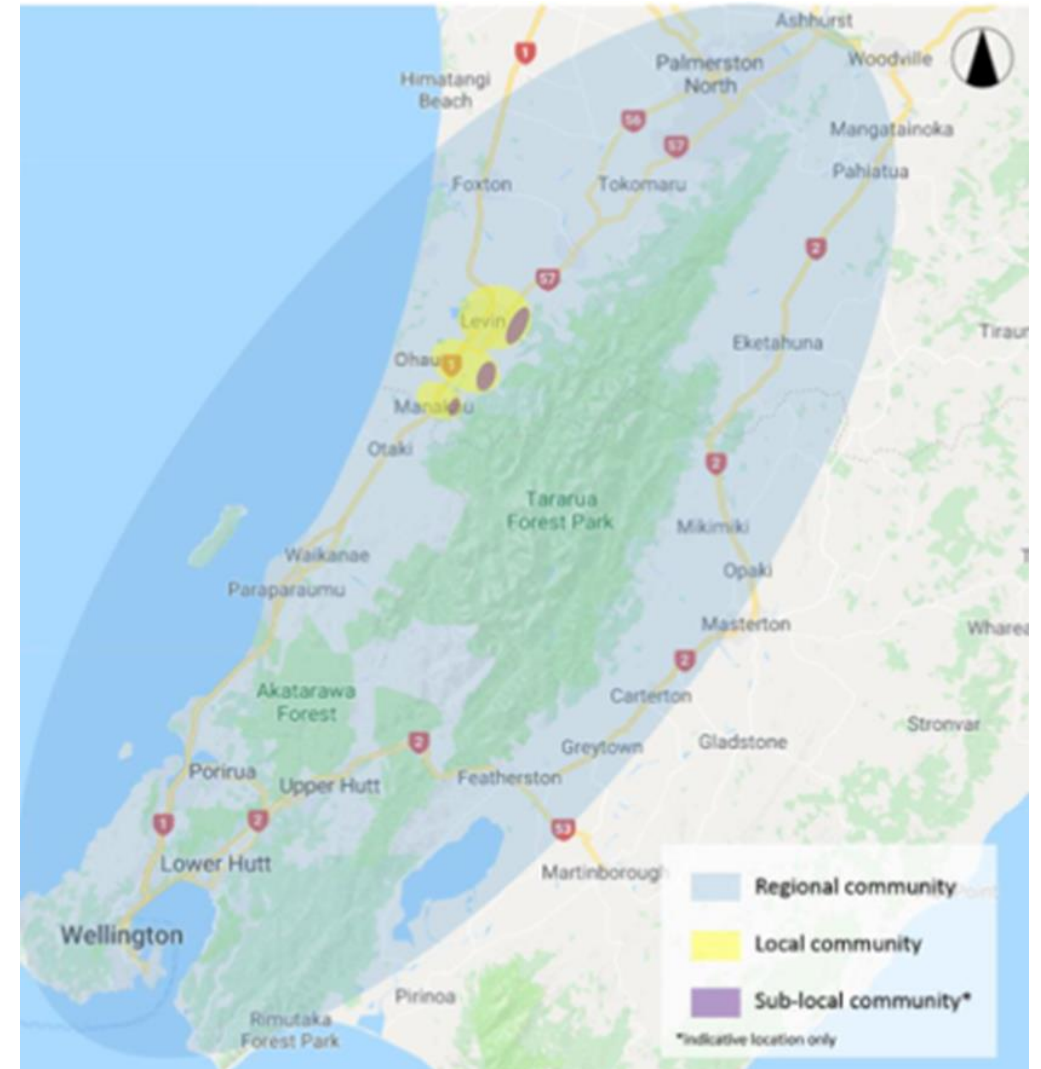
For this assessment consideration was for the communities that the interchanges/local roads intersected with – regional effects would not be impacted differently at this scale

Study Area

In the previous SIA, impacts were assessed at a Regional, Local and Sub-Local level.

For this MCA assessment impacts will be primarily sub local and where applicable local (see map)

This assessment does not consider impacts at a Regional level; this stage of route refinement is focused on the specific interchanges and local road connections and as such it is considered that potential differential impacts between options are most likely to occur at a sub-local and local level, with all interchange and local road options having fairly similar impacts at a regional scale.



Social Impact Scoring

For consistency the scores entered into the MCA are the same for all specialists, to reach these score the social impacts were assessed using the following scale and translated into MCA scoring:



This Scale can be positive or negative but for this assessment scoring focusses primarily on social costs and consider negative impacts (unless explicitly identified).

At each level the assessment considers the following factors:

- Duration – likelihood of being temporary or permanent
- Extent or scale of impact for community – how much of the community is likely to experience the impact
- Severity of impact - what the severity of the preliminary impact is likely to be / how much it will affect those involved at a community level

MCA Evaluation and Scoring - Interchanges

For the purposes of the Interchange MCA the social impact assessment has been applied to the MCA process and will be scored as follows:

Score	Description
1	The option presents few difficulties on the basis of the criterion being evaluated and may provide significant benefits in terms of the attribute.
2	The option presents only minor aspects of difficulty on the basis of the criterion being evaluated, and may provide some benefits in terms of the criterion.
3	The option presents some aspects of reasonable difficulty in terms of the criterion being evaluated and problems cannot be completely avoided. There are few apparent benefits in terms of the criterion.
4	The option includes clear aspects of difficulty in terms of the criterion being evaluated, and very limited perceived benefits.
5	The option includes significant difficulties or problems in terms of the criterion being evaluated and no apparent benefits.

MCA Evaluation and Scoring – Local Roads

For the purposes of the **Local Road** MCA the social impact assessment has been applied to the MCA process and will be scored as follows:

Green	Low potential social costs identified
Amber	Moderate potential social costs identified
Red	High potential social costs identified

- It is noted that this is a high level assessment of the provision of a connection not the design itself therefore input is on the social outcomes of proposed connections

Assessment

Social Community and Recreation Impacts

Interchanges

Social Impacts

- This is a high level assessment based on proposed location and type of interchange proposed
- Due social outcomes are largely related to connectivity and the social outcomes of way of life and social cohesion and sustaining oneself.
- Impacts on environment and character will be better understood once design details are further and rely on noise and visual experts to make commentary on preference of design types

Benefits

The overall benefits are for interchange are as follows:

- Connectivity benefits are provided by local road connections have positive impacts on social cohesion and way of life.
- Interchanges can provide for future growth and economic benefits by facilitating connections on and off the new corridor having positive impacts on sustaining oneself and way of life.
- Health and Wellbeing – safer connections on and off a state highway have positive impacts on the environment (decreasing risk) and personal health and wellbeing



Manakau

Manakau - Roundabout at South	4
Manakau - Grade Separation at South	4
Manakau - Roundabout at North	3
Manakau - Grade Separation at North	3
Manakau - No Connection	3

- North – Impacts on way of life (how people carry out daily activities), social cohesion (the way people connect within Manakau and between communities) and sustain themselves – moves products to and from home businesses. Comparatively there is less social disruption, regional connection to recreation opportunities off N Manakau Rd. Local community can connect in to go North and use Otaki (interchange) to connect in to go South – however does not provide connectivity as well to Manakau Village and South Manakau.
- South – This option has potential to further exacerbate alignment impacts in terms of disruption to social cohesion both Manakau Heights community and its connection to Manakau, way of life – changes to how people work , recreate and live, also potential to exacerbate impacts on amenities of rural environment
- No connection has less impacts re physical infrastructure and impacts to environmental amenities (rural lifestyle) and sub local community cohesion however creates a bypassed community and decreased growth and economic opportunities impacting on ability to sustain oneself, cohesion between communities and way of life - the community will still experience impacts of alignment without benefits of convenient use.
- Grade separation vs roundabout – preference for grade separation for local connectivity re walking and cycling and health and safety benefits

Kimberly / Tararua

K/T - Roundabout at Kimberly	4
K/T - Grade Separation at Kimberly	4
K/T - Roundabout at Tararua	3
K/T - Grade Separation at Tararua	3

- Kimberly – more social disruption of existing community (some dependence of scoring on local road option) impacts on way of life, social cohesion, environmental amenities and ability to sustain oneself
- Tararua – some impact on way of life, ability to sustain oneself and environment however this option connects developing communities and potential industrial area and less disruption to existing community
- Grade separation vs roundabout – preference for grade separation for local connectivity re walking and cycling and health and safety benefits



SH57/SH1 Split



Split - Bifurcation	2
Split - Roundabout	4
Split - Grade Separation	4

- Bifurcation – will impact on social connectivity to Levin (depend on local road options), environment and ability to sustain oneself however overall there will be less social disruption and environmental effects, community connectivity can be achieved using local road connections
- Grade separation vs roundabout – preference for grade separation for local connectivity re walking and cycling and health and safety benefits but both have major social disruptions to the existing community in terms of the way they live, connect to Levin and neighbour communities, ability to sustain oneself and exacerbate environmental impacts.

SH 1 North Levin

North Levin - Roundabout	3
North Levin - Grade Separation	3

- Grade separation vs roundabout – preference for grade separation for local connectivity re walking and cycling and health and safety benefits but both have major social disruptions to the existing community
- Given this connect SH1 from Levin Central a roundabout may better fit connectivity allowing people to move in and out easier and marker the entrance into Levin.
- Given the land requirements for both options there will be disruption to the social cohesion of the neighbour communities, changes to the way people interact and commute between places, the surrounding rural environment and ability to sustain oneself.



Local Roads

Social Impacts

- In all of the following set of options the design that allows for the local road connection to be at ground level (or as close to current level as possible) is preferred (this has not been confirmed at this stage so unable to provide more detailed assessment of individual options) in terms of social impacts as this allows the local community to retain connectivity and promote use of the walking and cycling connection.
- As detailed design is not available – this is not a full assessment of impacts rather commentary on potential social costs and benefits of the connectivity provided – social cohesion, commuting patterns (way of live) and where appropriate sustaining oneself, the environmental impacts would require more design detail.

South Manakau Road



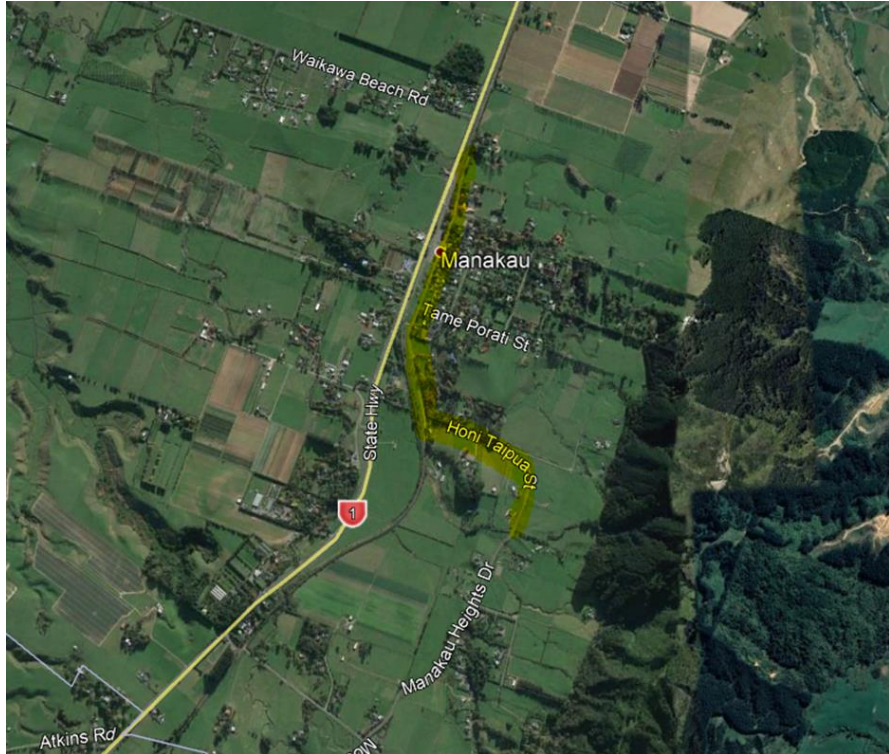
B1 - South Manakau Road - Reconnect South Manakau Road via an underpass (expressway over)

B2 - South Manakau Road - Reconnect South Manakau Road via an overbridge (expressway under)

B3 - South Manakau Road - Sever South Manakau Road and provide access via Honi Taipua Street

- For the Manakau Heights community a connection to both SH1 and Manakau are important, not "either or" but in particular Honi Taipua connects the Manakau Heights community to Manakau Village however there are potential costs on way of life, social cohesion and environment to the immediate community adjacent to the connection or where it is particularly visible.
- Between option B1 and B2 it would depend on which design allows South Manakau Road to be at current ground level

Honi Taipua Street



C1 - Honi Taipua Street - Sever Honi Taipua Street and access via Manakau Heights Drive

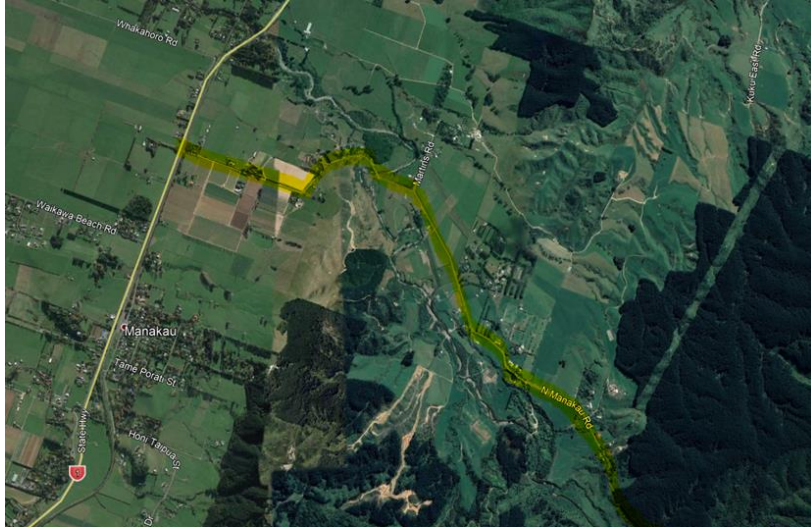
C2 - Honi Taipua Street - Reconnect Honi Taipua Street via an overbridge (expressway under)

C3 - Honi Taipua Street - Reconnect Honi Taipua Street via a footbridge only (expressway under), vehicle access via Manakau Heights Drive

C4 - Honi Taipua Street - Sever Honi Taipua Street and create a Mokena Kohere Street footbridge

- Honi Taipua important connection to Manakau Village potential high impacts on social cohesion and way of life if severed
- Dependent on design (preference for Honi Taipua to be at current ground level (or as close as practicable))
- Footbridges limit who it connects (only those capable of walking)

North Manakau Road and Kuku East Road



D1 - North Manakau Road - Reconnect North Manakau Road via an overbridge (expressway under)

D2 - North Manakau Road - Reconnect North Manakau Road via an underpass (expressway over)

E1 - Kuku East Road - Reconnect Kuku East Road via an overbridge (expressway under)

E2 - Kuku East Road - Reconnect Kuku East Road via an underpass (expressway over)

Connections of both these local roads are important. North Manakau is required to assist this community to connect into Manakau and continuity of way of life and for wider community accessing recreation. Kuku east is important to connect this community to Kuku and Ohau for cohesion and way of life. Preference is dependent on which design allows the local road to be connected at current ground level (or as near as practicable) to maintain social cohesion within the community and promote use of walking and cycling.

Muhunoa East Road



F1 - Muhunoa East Road - Reconnect Muhunoa East Road via an overbridge (expressway under)

F2 - Muhunoa East Road - Reconnect Muhunoa East Road via an underpass (expressway over)

F3 - Muhunoa East Road - Sever Muhunoa East Road and provide access via Arapaepae Road or Mcleavey Road

- Link between Muhunoa East and Ohau – way of life (access to school etc) and social cohesion
- Severance would reduce connectivity to Ohau and impact on social cohesion and way of life
- Preference dependent on which design (F1 or F2) allows the local road to stay at current ground level

McLeavy Road



G1 - Mcleavy Road - Reconnect Muhunua East Road via an overbridge (expressway under)

G2 - Mcleavy Road - Reconnect Muhunua East Road via an underpass (expressway over)

G3 - Mcleavy Road - Sever Muhunua East Road and provide access via Muhunua East Road or Arapaepae Road

- Dependent on which design (G1 or G2) is able to allow the local road to remain at current ground level
- Alternate access via Arapaepae/McLeavy may reduce connectivity to Ohau and impact on way of life and social cohesion
- Severance would reduce connectivity to Ohau

Arapaepae Road



H1 - Arapaepae Road south of Kimberley Road - Sever Arapaepae Road and provide access via Muhunoo East Road

H2 - Arapaepae Road south of Kimberley Road - Sever Arapaepae Road and provide access via Mcleavey Road

H3 - Arapaepae Road south of Kimberley Road - Sever Arapaepae Road and provide access via Kimberley Road / new link

I1 - Muhunoo East - Muhunoo East, Mcleavey and Kimberley severed, new connecting road built

- H1 reduced connectivity creating disconnection from east to west reducing social cohesion and impacting on way of life (accessing Levin for work, education and recreation)
- H2 new connection provides least new road reducing disruption to way of life, environment and ability to sustain oneself
- H3 Creating new road causes additional disruption to way of life, environment, sustaining oneself and social cohesion at a neighbour level
- I1 creates additional barriers between east and west impacting on social cohesion and more disruption to existing area in terms of way of life, environment and sustaining oneself

Kimberly Road



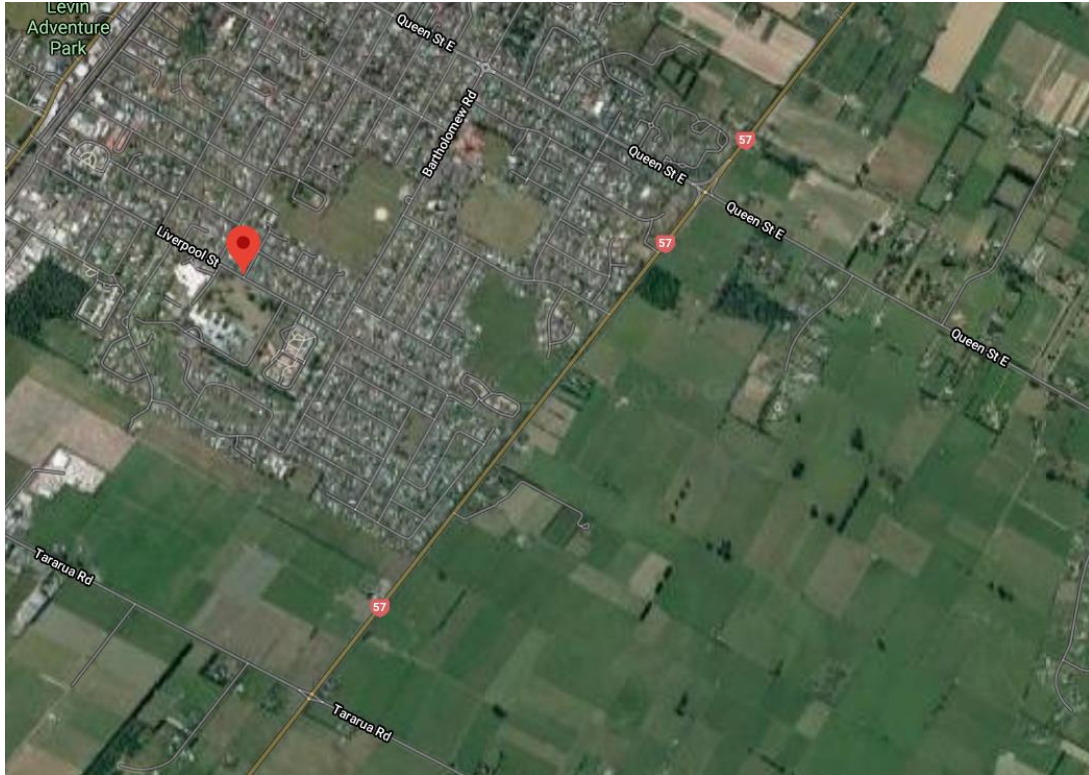
J2 - Kimberley Road - Reconnect Kimberley Road via an underpass (expressway over)

J3 - Kimberley Road - Sever Kimberley Road and provide access via Arapaepae South and a new link

J4 - Kimberley Road - Sever Kimberley Road and provide access via Tararua Road and a new link

- Both severance options require new roads that further disrupt the local community in terms of way of life, neighbourhood social cohesion, ability to sustain oneself and environment.

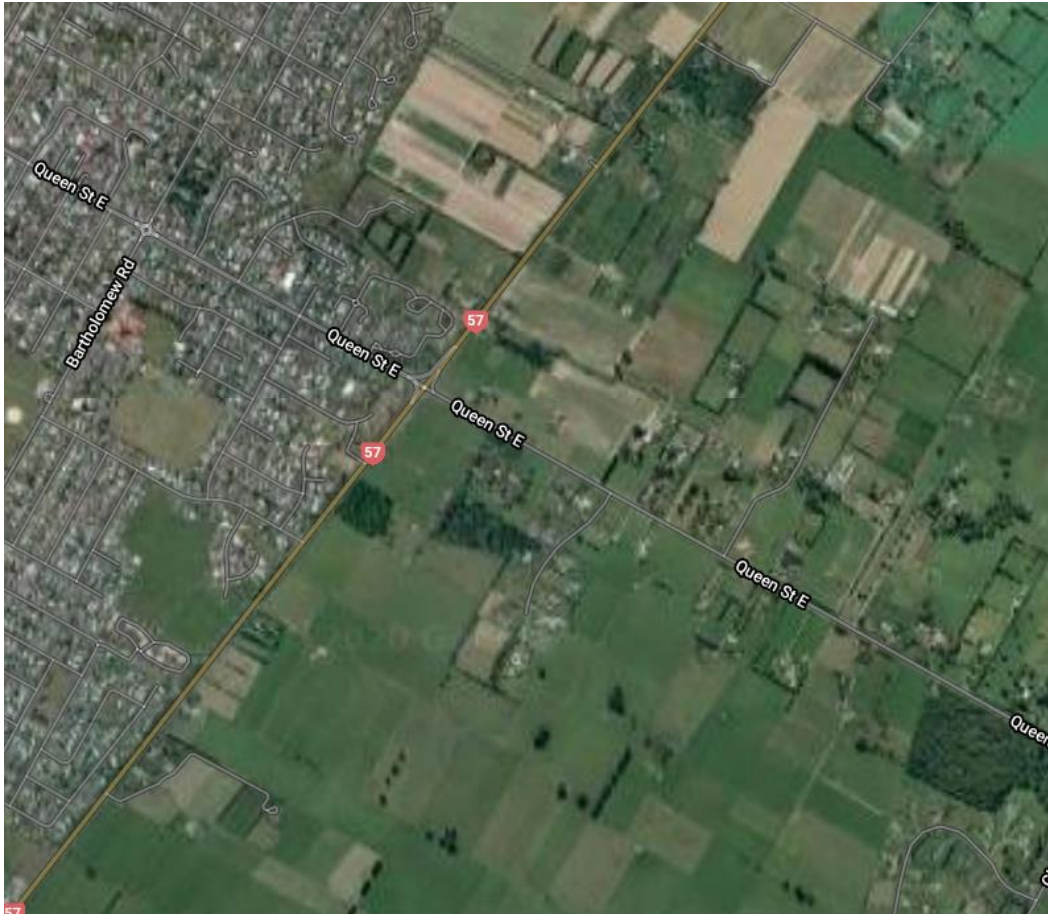
Liverpool Street



- J5 - Liverpool Street Connection (Expressway Over)
- J5 - Liverpool Street Connection (Expressway Under)
- J5 - Liverpool Street Connection (No connection)

These options are create a new road and there are potential impacts on way of life, environment however it may improve connectivity for future development. On existing environment no connection reduces potential impacts on existing environment but potential impacts on connectivity for future environment

Queen Street



K1 - Queen Street - Reconnect Queen Street via an underpass (expressway over)

K2 - Queen Street - Reconnect Queen Street via an overbridge (expressway below ground level)

- Preference for the option that retains Queen Street at street level as this is important for recreation, connectivity and way of life – it is assumed that this is option K1

Waihou Road

L1 - Waihou Road - Reconnect Waihou Road via a new link to McDonald Road

L2 - Waihou Road - Reconnect Waihou Road via a new link to Wakefield Street



- Wakefield if preferable as provides better connection into central Levin and reduced impacts on social cohesion and way of life
- It is noted that Wakefield would change from a no exit street and require new connection (potential disruption) from Waihou to Wakefield so potential change in environment effects for Wakefield Street residents.

Sorenson Road



N1 - Sorenson Road - Reconnect Sorenson Road via an underpass (expressway over)	Red
N2 - Sorenson Road - Reconnect Sorenson Road via an overbridge (expressway under)	Yellow
N3 - Sorenson Road - Retain Sorenson Road status quo based on alignment selection	Light Green

- No severance is preferred as minimises impacts to way of life and social cohesion, the other two options depend on design in terms of potential impact however both have potential to impact on social cohesion, the way people live, move in the area
- Prefer option that retains local road at ground level

Heatherlea East Road



P1 - Heatherlea East Road and Koputaroa Road - Reconnect Heatherlea East Road and Koputaroa Road via an intersection to a new roundabout on SH1

P2 - Heatherlea East Road and Koputaroa Road - Reconnect Heatherlea East Road and Koputaroa Road via an interchange on SH1

Q1 - Avenue North Road - Convert to cul de sac, active mode access to SH1 only

- No major social differentials between options
- Q1 reduces connectivity