

# **Notice of Requirement for the Kirwee Recreation Reserve Designation**

## **Selwyn District Council**

Kirwee Reserve  
Tramway Road, Kirwee

October 2019



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**Form 18****NOTICE OF REQUIREMENT BY MINISTER, LOCAL AUTHORITY, OR REQUIRING AUTHORITY  
FOR DESIGNATION OR ALTERATION OF DESIGNATION**

**TO:** Selwyn District Council

In accordance with Section 168 of the Resource Management Act 1991 Selwyn District Council gives notice of a requirement for a designation for a public work.

The following document and attachments contain the information necessary to satisfy the requirements of Form 18, Schedule 1 of the RMA relating to a notice of requirement for a designation.

The information included is designed to provide Council with sufficient information to make a full assessment of the effects of the activity this Notice of Requirement relates to under Section 171(1) of the RMA.

Signed on behalf of Selwyn District Council  
By its authorised agent:



Mark Rykers  
**Manager Open Space and Strategy**

Dated: 25 October 2019



<b>Requiring Authority:</b>	Selwyn District Council
<b>Objective:</b>	To extend the designation for the Kirwee Recreation Reserve to provide additional recreational facilities which are necessary to meet the demands of the Kirwee and Selwyn communities
<b>Site Address:</b>	Tramway Road, Kirwee
<b>Legal description:</b>	Section 1 SO 506720
<b>Landowner:</b>	Selwyn District Council
<b>Site area:</b>	6.5 ha
<b>Relevant Legislation:</b>	Notice of Requirement for a designation under Section 168 of the Resource Management Act 1991.
<b>District Plan Zoning:</b>	Outer Plains under the Selwyn District Plan.
<b>Additional Consents:</b>	No other consents required as part of this Notice of Requirement. An Outline Plan or Outline Plan waiver will be submitted for future works as required.

## Introduction

Selwyn District Council (SDC) gives notice to Selwyn District Council as the relevant territorial authority for a designation for a public work – being an extension to the existing Kirwee Recreation Reserve. Due to the extent of the additional land area subject to this Notice of Requirement (NOR) it is not considered appropriate for the designation to be treated as an alteration to the existing designation (in accordance with Section 181 of the Resource Management Act 1991 (RMA)) and a NOR for a new designation is sought in accordance with Section 168 of the RMA.

The following report and attached documents provide the information and assessment required under Section 168 of the RMA in respect of a Notice of Requirement (NOR) by the Selwyn District Council (SDC) for a new designation for an additional area to form part of the Kirwee Recreation Reserve.

In accordance with Section 168A of the RMA, the following assessment addresses the relevant matters, provides background to the NOR and describes the nature of the designation. The Council is a requiring authority under Section 166 of the RMA. The Council has financial responsibility for public works and may give notice to the territorial authority of requirement for a designation for public works such as the recreation reserve.

## The Site and Surrounding Environment

### *The Site*

The site subject to this NOR is located off Tramway Road, Kirwee (Section 1 SO 506720). The additional area proposed to be designated and subject to this NOR is 6.5 ha in area and is shown in blue in Figure 1. The site is adjacent to the existing Kirwee Recreation Reserve (shown in red in Figure 1). Vehicle access to the site is provided from Tramway Road and there is additional pedestrian access from Hoskyns Road, via a 20 m wide access strip which is proposed to be constructed as a pedestrian accessway to the site.



**Figure 1: Land subject to this Notice of Requirement (shown in blue)**

The site is flat and is currently vacant and infrequently mown to keep grass at a manageable level (previously the site was grazed). The site is zoned Outer Plains under the Selwyn District Plan and is not subject to any overlays. SDC have acquired the land subject to this NOR, to further develop the existing Kirwee Recreation Reserve. The site is listed on Environment Canterbury's Listed Land Use Register (LLUR) and a Preliminary Site Investigation (PSI) has been undertaken (Malloch Environmental Limited, dated January 2019) for the site (Appendix D). The majority of the site has been used for forestry and pasture activities, with the south-eastern part of the site (and the existing Kirwee Recreation reserve) developed for recreational use (sports fields) which are likely to have resulted in the persistent use of pesticides (category A10: Persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glass houses or spray sheds) which is categorised as a HAIL activity.

The PSI determined that it was unlikely persistent pesticide use has occurred at the site, and the area of land subject to this NOR is unlikely to be contaminated from the past forestry and pasture activities. Overall, the site is considered suitable for recreational activities and no soil testing is required.

The site is located over the unconfined and semiconfined aquifer system. Groundwater levels are between 63 – 83 m in depth.

The Computer Freehold Register is attached in Appendix B.

### ***Surrounding Environment***

#### **Existing Kirwee Recreation Reserve**

The site is located to the north and west of the existing Kirwee Recreation Reserve. The existing recreation reserve contains the following facilities (shown in Figure 2):

- **Kirwee Netball Club:** Two netball courts
- **Kirwee Tennis Club:** Four tennis courts and clubroom
- **Kirwee Rugby Club:** Two existing senior rugby fields and one junior field, use of the Kirwee Sports Pavilion and associated changing rooms, toilets, kitchen and bar facilities
- **Kirwee Cricket Club:** One grass cricket pitch located in the centre of the rugby fields.
- **Kirwee Bowls Club:** Existing bowling ground and clubroom building.

The large, grassed playing fields are also used for community-based events and there is an existing children's playground located next to the Pavilion.



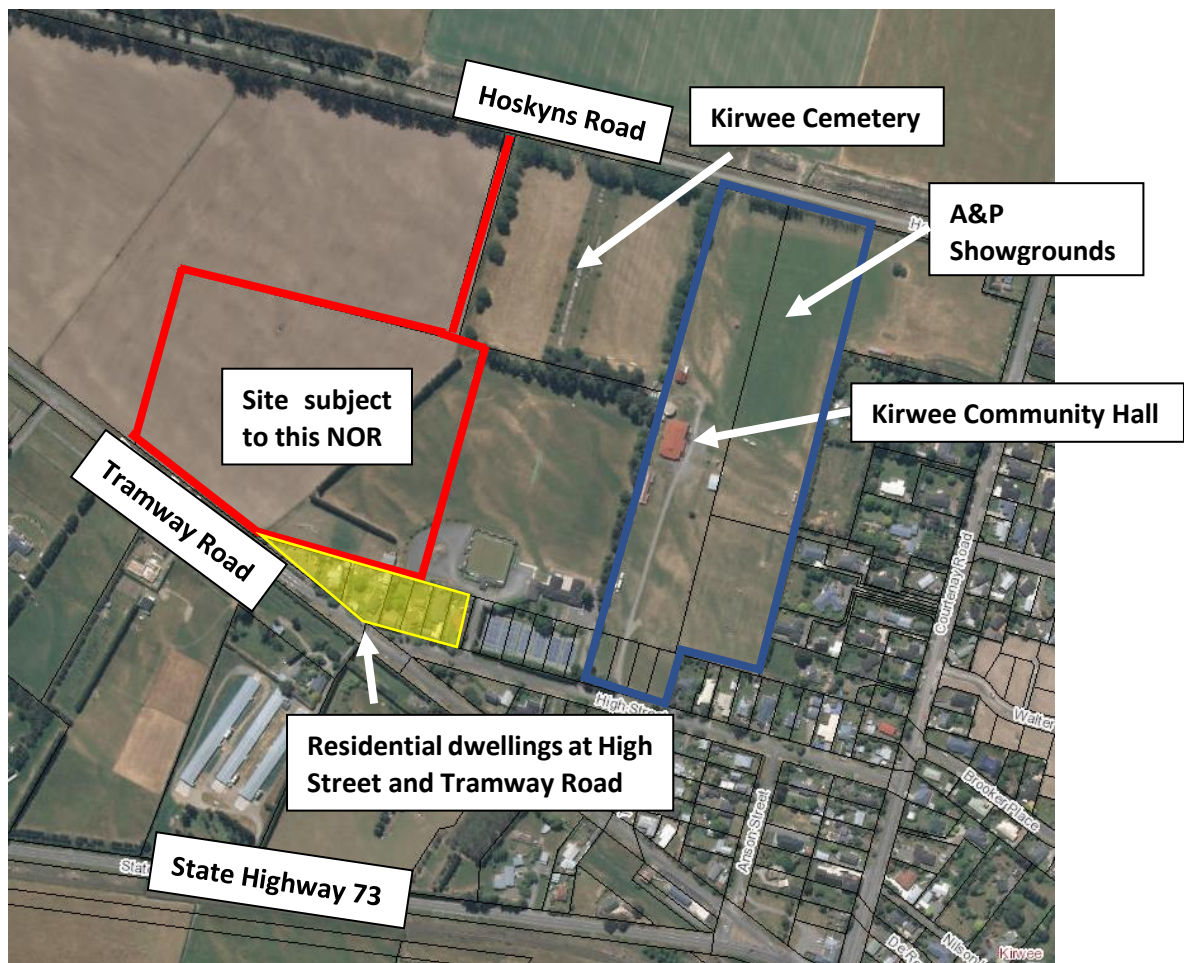
**Figure 2: Existing recreational facilities at Kirwee Recreation Reserve**

There is no formal car parking at the existing reserve. However, informal parking spaces are located either side of the bowling club and next to the playground.

### **Surrounding Land Uses**

There are several dwellings located at 42-50 High Street and 56 Tramway Road, south of the site (see Figure 3). The land located to the north, west and south are largely rural and used for grazing. The residential areas of Kirwee are located to the east of the existing reserve. The Kirwee Cemetery is located to the northeast. Figure 3 shows the surrounding land uses.





**Figure 3: Site subject to this NOR and the surrounding environment**

## Nature of the Proposed Public Work

The Council proposes a new designation for an extension to the Kirwee Recreation Reserve. The existing designation is for Recreation Reserve purposes (D190). There are no conditions attached to the existing designation. This NOR seeks to designate the additional land for Recreation Reserve purposes as part of the Kirwee Recreation Reserve. Plans are attached in Appendix C of the proposed works and include the following:

### ***Cricket Facilities***

A new cricket oval is proposed to the west of the existing rugby fields. It is also proposed to relocate the existing cricket nets further west alongside the new cricket oval. The location of the proposed oval and nets is shown in Appendix C.

### ***Rugby Field***

It is proposed to realign the existing no.2 senior rugby field (which is currently partially located within the existing designation and partially within the site subject to this NOR. The realignment of the no.2 field will mean it is possible to fit a second junior field. New floodlights are proposed to light both the no.1 and 2 senior rugby fields, to facilitate rugby training. The no.1 field will be lit to a standard to facilitate games in the evening, however as this is part of the existing designation, this will be done through the outline plan process. The existing floodlights will also be replaced to utilise new technology.

### ***Community Hub***

A community hub area including several play spaces are proposed at the reserve. The proposed spaces will likely include facilities such as separate senior and junior play spaces, a community activity space, a smaller half-sized basketball court and a children's bicycle/scooter/skate park. A small bike pump track is also proposed.

### ***Dog Exercise Area***

The western portion of the site is proposed to be a dog exercise area of approximately 0.87 ha in area. The area is 15.8 m long, and approximately 38 m wide at its most narrow point. Landscaping is proposed along the western boundary of the site and around the perimeter of the dog exercise area.

### ***Car Parking***

Car parking at the existing reserve will be formalised and new parking at the site will consist of an additional 114 spaces. The new parking spaces are split between two areas (see Figure 4). The car parking spaces back onto the residential dwellings on High Street and Tramway Road.



**Figure 4: Location of additional car parking spaces**

### ***Vehicle and Pedestrian Access***

A new vehicle access will be constructed off Tramway Road (see location in Figure 4). The new vehicle access will provide access to the new area of the recreation reserve and vehicles will be able to move freely between the existing reserve and the site subject to this NOR.

A 20 m wide pedestrian accessway is proposed to provide access to the site from Hoskyns Road. The accessway will run to the west of Kirwee Cemetery. The land for the accessway forms part of the site subject to this NOR.

### ***Landscaping***

Substantial landscaping is proposed around the site. Plans attached in Appendix C show the general location and extent of the proposed landscaping. Landscaping consisting of large and small specimen trees are proposed around the perimeter of the site and between the existing reserve and the site subject to this NOR. A shrub border is also proposed around the northern and western boundaries to screen the dog exercise area from the adjacent sites. Detailed design/planting plans will be undertaken at a later stage.

A grass mound will be constructed around the western side of the cricket oval and will be planted with larger specimen trees. Large specimen trees have already been planted along the pedestrian accessway from Hoskyns Road.



***Toilet Block***

A new toilet block is proposed to be constructed and will be located close to the play spaces and No. 1 cricket oval. The additional toilet block will provide toilet and changing facilities for users at this end of the reserve, including the play spaces, new cricket oval and the second senior rugby field.

***Additional Lighting***

New floodlights are proposed around the second (no.2) rugby field. The lighting will allow rugby training to take place in the evening.

Lighting will also be installed in the car parking areas for safety and security purposes. A light spill plan showing the type of lighting proposed and indicative locations around the site is attached as Appendix G. The purpose of providing this plan is to demonstrate that lighting can be erected without resulting in adverse effects in terms of lightspill on adjoining properties.

Additional floodlighting is also proposed around the existing no.1 rugby field (on the existing recreation reserve), however, an Outline Plan of Works will be submitted which addresses the lighting proposed at the existing designated site and therefore it does not form part of this NOR.

***Staging***

It is anticipated that the land will be developed in stages as follows:

***Stage 1***

The first stage will be to remove the existing pine trees to allow the realignment of the sports fields and installation of new floodlighting. The existing mound adjacent to these pine trees will be relocated to the west side of the No.1 Cricket Oval. The new land to be included in the reserve will then be levelled and grassed and landscaping established. The pedestrian path will also be constructed around the perimeter of the new reserve boundary. This path will be a hard surface suitable for wheelchair/pushchair use.

***Stage 2***

Stage 2 will be the construction of the new playgrounds, community hub area and car parking, as well as further landscaping associated with these areas. Those areas identified on the master plan as future parking will initially be grassed. These areas will be available for occasional overflow parking and demand will be monitored by the Council through the reserve committee. The land is set aside for car parking and will be formed when there is regular demand for additional car parking.

## Statutory Assessment

The following provides a statutory assessment of the proposed recreation reserve in accordance with the RMA. The statutory documents of relevance include the RMA itself, the Selwyn District Plan and the Canterbury Regional Policy Statement ('the RPS').

### Resource Management Act 1991

The RMA provides for the use and development of New Zealand's natural and physical resources through:

- Part 2, which establishes the purpose and principles applying to resource consents and designations;
- Section 171, which prescribes matters to be taken into account in confirming designations.

The following sections of the RMA are most relevant to this notice.

#### **Section 5 – Purpose**

The purpose of the RMA is to promote the sustainable management of natural and physical resources. Sustainable management is defined in section 5(2) as:

*... managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while:*

- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The proposed recreation reserve would reflect the principles of Part 2 of the RMA as it would enable the community to provide for its social, cultural and economic well-being by providing necessary community infrastructure to service the projected increase in demand for recreation facilities in this part of the Selwyn District. This not only provides for the social wellbeing of the residents of Kirwee, but also for the wider community, particularly in terms of its use for sporting activities in District wide competitions. The effects of the designation are evaluated later in this report and demonstrate that any potential adverse effects on the environment will be able to avoided, remedied or mitigated.

### ***Section 6 – Matters of National Importance***

There are no matters of national importance listed in section 6 that are considered to be of relevance to this notice.

### ***Section 7 – Other Matters***

This section lists certain matters to which particular regard is to be had in making resource management decisions. The relevant matters are as follows:

- (a) Kaitiakitanga;*
- (aa) The ethic of stewardship;*
- (b) The efficient use and development of natural and physical resources;*
- (c) The maintenance and enhancement of amenity values;*
- (f) Maintenance and enhancement of the quality of the environment;*

An assessment of the potential effects in respect of natural/physical resources, amenity values and the quality of the environment follows later in this report.

### ***Section 8 – Treaty of Waitangi***

This section requires those exercising powers or functions under the RMA to take into account the principles of the Treaty of Waitangi. The principles of the Treaty of Waitangi have been taken into account, in that the site is within an appropriately zoned area and there are no known sites of significance to Ngai Tahu in the general area.

### ***Section 168 – Notice of Requirement***

Selwyn District Council is a requiring authority. This notice has been lodged with the relevant territorial authority under section 168(1) of the RMA.

### ***Section 171 – Recommendation by the Territorial Authority***

Under section 171, the territorial authority may recommend to the requiring authority one of the following:

- confirm the designation
- modify the designation
- impose conditions
- withdraw the requirement

This recommendation is based on matters the territorial authority is required to have particular regard to when considering a notice of requirement under section 168. The matters to be considered are set out in section 171(1) of the RMA and are as follows:

- (1) When considering a requirement and any submissions received, the territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to—*
  - (a) Any relevant provisions of—*

- (i) *a national policy statement,*
  - (ii) *a New Zealand coastal policy statement,*
  - (iii) *a regional policy statement, or proposed regional policy statement; and*
  - (iv) *a plan or a proposed plan; and*
- (b) *Whether adequate consideration has been given to alternative sites, routes, or methods of undertaking work if—*
  - (i) *the requiring authority does not have an interest in the land sufficient for undertaking the work; or*
  - (ii) *it is likely that the work will have significant adverse effect on the environment; and*
- (c) *Whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and*
- (d) *Any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.*

The proposal to designate the site has taken into account the relevant provisions of the relevant planning and statutory documents as listed. There are considered to be no relevant national policy statements, and nor is the New Zealand Coastal Policy Statement of relevance. An assessment of the Selwyn District Plan and the RPS is provided below.

The selection of this site is considered later within this report. The alternative method of reliance on resource consents, as provided for in the current District Plan, is not conducive to the efficient delivery of recreational facilities, nor provides for the long term planning certainty that is required by the Council. In addition, the proposal to designate is consistent with the existing designation of the adjacent land for recreation purposes.

The project and designation are considered by the Council to be reasonably necessary for the provision of additional recreation facilities for Kirwee. The Council's objectives are discussed further within this report.

An assessment of the District Plan as well as an assessment of environmental effects are included within this report and collectively deal with the matters that are considered reasonably necessary for the Council to make a recommendation on the requirement.

### **Canterbury Regional Policy Statement**

The Canterbury Regional Policy Statement (CRPS) became operative on the 15<sup>th</sup> of January 2013.

The CRPS provides objectives and policies aimed at ensuring that the Canterbury Region's growth, including recreation and community facilities, is accommodated in a manner which

gives effect to the RMA and promotes the efficient use of natural and physical resources. As identified above, the extension of the existing recreation reserve on the site will accommodate the future growth of the Kirwee area and Selwyn District and it will also be consistent with Part 2 of the RMA. The following objective and policies are relevant to the NOR application:

**Objective 5.2.1**

**Location, design and function of development (Entire Region)**

*Development is located and designed so that it functions in a way that:*

- 1. achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and*
- 2. enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which:*
  - a. maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values;*
  - b. provides sufficient housing choice to meet the region's housing needs;*
  - c. encourages sustainable economic development by enabling business activities in appropriate locations;*
  - d. minimises energy use and/or improves energy efficiency;*
  - e. enables rural activities that support the rural environment including primary production;*
  - f. is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure;*
  - g. avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure;*
  - h. facilitates the establishment of papakāinga and marae; and*
  - i. avoids conflicts between incompatible activities.*

**Policy 5.3.1**

**Regional growth (Wider Region)**

***To provide, as the primary focus for meeting the wider region's growth needs, sustainable development patterns that:***

- 1. ensure that any*
  - a. urban growth; and*
  - b. limited rural residential development**occur in a form that concentrates, or is attached to, existing urban areas and promotes a coordinated pattern of development;*
- 2. encourage within urban areas, housing choice, recreation and community facilities, and business opportunities of a character and form that supports urban consolidation;*

3. *promote energy efficiency in urban forms, transport patterns, site location and subdivision layout;*
4. *maintain and enhance the sense of identity and character of the region's urban areas; and*
5. *encourage high quality urban design, including the maintenance and enhancement of amenity values.*

**Policy 5.3.12**

**Rural production (Wider Region)**

***Maintain and enhance natural and physical resources contributing to Canterbury's overall rural productive economy in areas which are valued for existing or foreseeable future primary production, by:***

1. *avoiding development, and/or fragmentation which;*
    - a. *forecloses the ability to make appropriate use of that land for primary production; and/or*
    - b. *results in reverse sensitivity effects that limit or precludes primary production.*
  2. *enabling tourism, employment and recreational development in rural areas, provided that it:*
    - a. *is consistent and compatible with rural character, activities, and an open rural environment;*
    - b. *has a direct relationship with or is dependent upon rural activities, rural resources or raw material inputs sourced from within the rural area;*
    - c. *is not likely to result in proliferation of employment (including that associated with industrial activities) that is not linked to activities or raw material inputs sourced from within the rural area; and*
    - d. *is of a scale that would not compromise the primary focus for accommodating growth in consolidated, well designed and more sustainable development patterns.*
- and;*
3. *ensuring that rural land use intensification does not contribute to significant cumulative adverse effects on water quality and quantity.*

The proposed development of additional land for recreation purposes will be undertaken in a way that achieves consolidated, well designed and sustainable growth around the existing urban area of Kirwee. It will also enable people and communities, including future generations to provide for their social, economic and cultural wellbeing and health and safety by providing both informal and formal opportunities for recreation. The designation will provide recreation and community facilities immediately adjacent to an urban area and as an extension to an existing recreation reserve. It is considered that this promotes a coordinated pattern of development.

Policy 5.3.12 provides for recreational development in rural areas. It is considered that the proposal will be consistent and compatible with rural character, activities and an open rural environment. The development of additional playing fields and the open space for dog exercise will maintain an open environment with limited structures. The car parking, toilet block, playground activities and so on are located adjacent to the existing urban area. In terms of having a direct relationship with or being dependent on rural activities, it is noted that the definition of rural activities in the CRPS includes “*Large – footprint parks, reserves, conservation parks and recreation facilities*”. The proposal will not result in a proliferation of employment, being limited to grounds staff only. It is also of a scale that would not compromise the primary focus of accommodating growth in consolidated, well designed and more sustainable development patterns.

Overall, it is therefore considered that the development of additional land for recreation purposes on the proposed site is consistent with the relevant provisions of the CRPS.

### Selwyn District Plan

The relevant provisions of the Selwyn District Plan in relation to the proposed recreation facility are set out below:

#### ***Relevant Objectives and Policies of the Selwyn District Plan***

<b>Relevant Objective/Policy</b>	<b>Comment in relation to the NOR</b>
<b><i>Objective B2.1.1: An integrated approach to land use and transport planning to ensure the safe and efficient operation of the District’s roads, pathways, railway lines and airfields is not compromised by adverse effects from activities on surrounding land or by residential growth.</i></b>	A new accessway is proposed to provide vehicle access to the site. The additional sports grounds and facilities are likely to generate an increase in traffic over time. However, there are two existing accessways to the Kirwee Recreation Reserve. The additional access to the site is considered to be sufficient for the anticipated traffic volumes and the proposed off-street car parking will ensure reserve users can park at the site, so that the adverse effects on the surrounding transport network are less than minor.
<b><i>Objective B2.1.2: An integrated approach to land use and transport planning to manage and minimise adverse effects of transport networks on adjoining land uses, and to avoid “reverse sensitivity” effects on the operation of transport networks.</i></b>	There are several existing residential dwellings located in proximity to the site subject to this NOR. Tramway Road and High Street at this location are local roads and it not anticipated that there will be any reverse sensitivity effects on the facility from the existing transport network.

<p><b>Policy B2.1.2:</b> <i>Manage effects of activities on the safe and efficient operation of the District's existing and planned road network, considering the classification and function of each road in the hierarchy.</i></p>	<p>Tramway Road and High Street are both local roads. One additional vehicle access is proposed at the site, however, there will be three accessways to the entire Kirwee Recreation Reserve. The proposed car parking and access have been designed for the anticipated volume of traffic entering and exiting the site at peak times i.e. before and after sports matches.</p>
<p><b>Policy B2.1.4(a):</b> <i>Ensure all sites, allotments or properties have legal access to a legal road which is formed to the standard necessary to meet the needs of the activity considering:</i></p> <ul style="list-style-type: none"> <li>- <i>the number and type of vehicle movements generated by the activity;</i></li> <li>- <i>the road classification and function; and</i></li> <li>- <i>any pedestrian, cycle, public transport or other access required by the activity.</i></li> </ul>	<p>The ITA has assessed the additional vehicle access against the standards set out in the District Plan and recommended an alternative layout. The alternative layout is considered appropriate for the volume of traffic on Tramway Road and the proximity to the 50km/hr speed limit. It is also considered that this new access will receive the least amount of use.</p> <p>A new accessway will provide an additional access route to the site from Hoskyns Road for pedestrians and cyclists.</p>
<p><b>Policy B2.1.6:</b> <i>Avoid adverse effects of on-road parking and loading generated by surrounding land uses on rural roads.</i></p>	<p>The proposed car parking has been designed for the additional recreational areas, so that overflow on-street parking will not be required.</p>
<p><b>Policy B2.1.7:</b> <i>Provide for pedestrian safety, security, circulation and access within parking areas by considering the interaction of vehicle access and manoeuvring, circulation, loading and parking, with likely pedestrian routes onto the site, including for users of public transport, and between car and cycle parks, and building entrances.</i></p>	<p>Separate pedestrian access is provided to the site from Hoskyns Road and from Tramway Road. Pedestrian paths are provided around the edge of the car parking areas to provide safe options for pedestrians at the site.</p>
<p><b>Policy B2.1.13:</b> <i>Avoid planting trees or hedges in positions or allow them to grow to heights where they will shade roads for prolonged periods during winter.</i></p>	<p>The proposed landscaping comprises of small specimen species along the Tramway Road boundary. Species chosen will not be able to grow to a sufficient height to create shadowing on Tramway Road for prolonged periods.</p>
<p><b>Community Facilities and Recreational Areas</b></p>	



<b>Objective B2.3.1:</b> <i>Efficient use and maintenance of community facilities is encouraged.</i>	The proposed extension is considered an efficient use of space and will provide additional community facilities alongside the existing reserve.
<b>Policy B2.3.1:</b> <i>Recognise community facilities as part of the rural environment and encourage new uses for existing community facilities.</i>	The proposed extension to the existing Kirwee Recreation Reserve will provide additional community sports facilities as part of the rural environment on the edge of the Kirwee town. The existing reserve is a community facility that will continue to be used and will also be upgraded as part of the overall Kirwee Recreation Reserve project.
<b>Policy B2.3.3:</b> <i>Encourage new community facilities to:</i> <i>(a) Be located in or adjoining townships; and</i> <i>(b) Be designed and sited for easy access and personal safety of patrons.</i>	The extension is located adjacent to the existing Kirwee Recreation Reserve and is designed for easy and safe vehicle and pedestrian access.
<b>Quality of the Environment</b>	
<b>Objective B3.4.1:</b> <i>The District's rural area is a pleasant place to live and work in.</i>	The provision of additional land for recreation purposes will contribute to the rural area of the District being a pleasant place to live and work in.
<b>Objective B3.4.2:</b> <i>A variety of activities are provided for in the rural area, while maintaining rural character and avoiding reverse sensitivity effects.</i>	The proposed designation is located within a rural zone: Outer Plains, however, it is adjacent to the existing reserve and a residential area. The proposed designation will change the character of the existing site but will not affect the rural character of the wider area.
<b>Policy B3.4.1:</b> <i>Recognise the Rural zone as an area where a variety of activities occur and maintain environmental standards that allows for primary production and other business activities to operate.</i>	The site is within a rural zone: Outer Plains which allows for a variety of activities, provided they maintain environmental standards that allow for primary production and other business activities to occur. The recreation reserve extension will not affect the ability for other existing rural activities to take place within the area.
<b>Policy B3.4.3:</b> <i>Avoid, remedy or mitigate significant adverse effects of activities on the amenity values of the rural area.</i>	The effects on amenity values have been discussed above and are suitably mitigated so that overall the effects on amenity are less than minor.

<b><i>Policy B3.4.11:</i></b> <i>Avoid night lighting shining directly into houses, other than a house located on the same site as the activity, or from vehicles using roads in the District.</i>	The proposed lighting will not shine directly into the surrounding as demonstrated by the lighting assessment in Appendix G.
<b><i>Policy B3.4.13:</i></b> <i>Recognise temporary noise associated with short-term, seasonal activities as part of the rural environment, but ensure continuous or regular noise is at a level which does not disturb people indoors on adjoining properties.</i>	Noise from additional rugby and cricket games will be temporary. The regular noise generated from the site will not be at a level that will disturb nearby residences.

The proposed recreational facility is considered to be consistent with the relevant objectives and policies of the Selwyn District Plan, and the overall effects from the proposed extension to the Kirwee Recreation Reserve can be appropriately managed so that the adjacent sites are unlikely to be adversely affected from designating the site as a Recreation Reserve.

## Resource Consents Requirements

It is not envisaged that any resource consents will be required from the Canterbury Regional Council for any of the works that are to be undertaken. However, if any regional consents are required for any future work, these will be applied for prior to construction.

Malloch Environmental Limited carried out a Preliminary Site Investigation (PSI, dated January 2019) for the site. The PSI has determined that the likelihood of HAIL activities occurring at the site subject to this NOR is low and therefore, it is unlikely that the site is subject to contamination. As a result, the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES Soils) does not apply. In the event that contamination is discovered during construction, works will cease and the application of the NES Soils will be revisited and the necessary resource consents applied for as required.

## Assessment of Effects on the Environment

The assessment of effects below relates to the actual and potential effects on the environment from the extension of the Kirwee Recreation Reserve at the site subject to this NOR. While this NOR relates to the new land to be included within the existing recreation reserve, the additional land allows for redevelopment of the site as a whole. The proposed Master Plan includes additional car parking and a basketball court on the existing designated land. For completeness, this assessment of effects assesses the effects of the development as a whole rather than just those activities occurring on the additional land subject to this NOR.

### Visual effects

The proposed extension to the NOR will result in a change in the visual appearance of the site. The site is currently in pasture as can be seen in the photograph included below:



Native trees that were recently planted on the border of the reserve by Kirwee Model School Students and members of the community, as can be seen to the left of the photo. The proposed Master Plan attached in Appendix C provides the general design intent which includes planting of both exotic and mixed natives around the boundary of the additional land to be designated. Beyond the planting, the site will have an open park like setting.

The proposed extension to the car parking area will adjoin the Living zoned properties to the south of the NOR. A 1.8m high acoustic fence will be erected along this boundary to mitigate potential noise effects and prevent access to these residential properties from within the reserve. The parking area will also be separated from these properties by a landscape strip of approximately 5m in width.

Overall, it is considered that the proposed use of the land for recreation reserve and additional planting will ensure any potential visual effects are less than minor.

## **Traffic**

An Integrated Transport Assessment (ITA) has been prepared by Novo Group (Appendix E) which describes the transport environment in the vicinity of the site, the transport related components of the proposal and key transport provisions in the District Plan.

### ***Parking and traffic generation***

A parking survey was undertaken on two Saturday mornings during winter time to determine the existing peak parking demand for the site. One of these surveys coincided with the rugby clubs annual Club Day so represents one of the busiest days on the rugby calendar. No on-street parking was observed during these surveys. It is noted that netball is not played on the site on a Saturday and trainings occur during weekday evenings. Traffic generation and parking demand for summer sports was estimated based on survey information from the NZ Trips and Parking Database or otherwise from first principles.

Estimated traffic generation and parking demand is set out in Tables 3 and 4 of the ITA. The future parking demand has been estimated as 184 spaces during the winter peak and 110 during the summer peak. A total of 201 spaces are proposed, therefore the spaces are expected to meet all anticipated parking demand on a typical weekend. The ITA notes that during club days there may be higher demand, however overflow areas are available around the site to cater for overflow parking during these infrequent occurrences. Larger events can be appropriately managed through the use of a traffic management plan and/or parking marshals.

The ITA notes that some visiting senior rugby teams charter a bus to travel to Kirwee. This will reduce traffic generation and parking demand. Where buses are expected, a small number of car parks will be coned off to provide for bus parking.

Of the total 201 possibly parking spaces, 54 spaces are indicated on the proposed Master Plan for future parking. Initially these areas will be grassed and demand for parking will be monitored by Council (along with feedback from the clubs). Once capacity in the car park is reached, the additional parks will be formed and sealed prior to the start of the following rugby season. As these areas will be grassed, informal parking will be possible to meet this infrequent demand in the meantime.

The ITA recommends that 10 cycle stands are provided. It is proposed to position these near main gathering points, such as the existing pavilion and proposed public toilet and community hub area. It notes that there is ample space around the site to provide additional cycle parking should there be demand for additional spaces in the future.

### ***On-Site Layout***

The ITA notes that the on-site layout provides for ease of manoeuvring to and from each parking area and the accesses provide for two way flow of vehicles. All of the accesses provide large queuing spaces and the ITA recommends that speed platforms be considered to ensure slow speeds are maintained through the main car park. The applicant agrees with this recommendation and will install speed platforms within the main car park.

### ***Access***

The ITA notes that the site will continue to use the existing accesses to High Street which are well formed, cater for two way traffic and have good visibility in both directions. High Street has a 50km/h speed limit.

A new access is proposed from Tramway Road which has a 100km/hr speed limit at the proposed crossing, reducing to 50km/h just south of the crossing. The ITA notes that the District Plan would typically require a new crossing to non-residential activities to be constructed to Diagram E10.D standard which includes acceleration and deceleration lanes. The ITA does not consider that this is necessary given Tramway Road has low traffic volumes, the crossing is close to the 50km/h speed limit and this crossing is likely to receive the least amount of use (as most vehicles will arrive via High Street). It also notes that the existing threshold treatment for the speed reduction provides a 1.6m sealed shoulder, 3.0m traffic lanes and a 1.2m flush median. This provides sufficient space for through traffic to pass around any vehicles waiting to turn right into the site. The ITA recommends that the access includes a 15m turning radius where it joins to the sealed edge of the road.

The ITA further notes that it would be desirable to move the 50km/h speed limit approximately 50m further north of the vehicle crossing. The applicant agrees that this would be appropriate and will initiate this process through the relevant setting of speed limit legislation.

### ***Road Network***

The ITA notes that the frontage roads for the reserve can readily accommodate the estimated traffic generation and the site is appropriately located on the road network for its intended use. A separate pedestrian access is also provided from Tramway Road.

### ***District Plan Assessment***

Appendix 2 of the ITA includes a full assessment of the proposed extension to the reserve against the District Plan Transportation rules. This assessment demonstrates a large degree of compliance. The matters of non-compliance are limited to the design of the proposed vehicle crossing onto Tramway Road and the number of cycle parks proposed. Both of these non-compliances are discussed above.

### ***Summary***

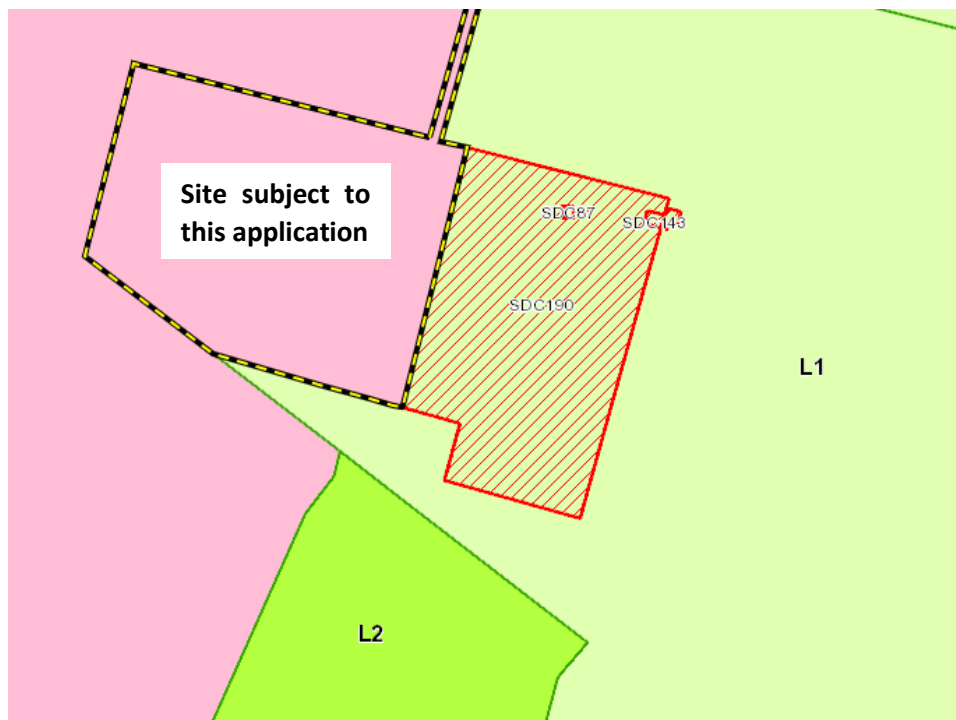
The ITA concludes that the proposed parking will meet all anticipated demand with informal grass areas available for larger annual or one off events. It considers the proposed access design and location to be appropriate and recommends that the existing road threshold treatments be extended approximately 50m to the north to facilitate better access to the site and relocation of the 50km/h speed limit. The ITA further considers that anticipated traffic generation can be accommodated within the existing physical capacity of the road network.

### **Noise**

The permitted standards for noise at any Living Zone boundary are below:

<b>Hours</b>	<b>Noise Limit</b>
7.30 am – 8.00 pm	55 dBA L <sub>10</sub> 85 dBA L <sub>max</sub>
8.01 pm – 7.29 am	40 dBA L <sub>10</sub> 70 dBA L <sub>max</sub>

The closest Living zone boundaries are at the residences on Tramway Road and High Street and the adjacent reserve. These are zoned Living 1– see Figure 5.



**Figure 5: Surrounding Living Zones under the Selwyn District Plan**

An Assessment of Environmental Noise Effects (AENE) has been undertaken by Acoustic Engineering Services Limited (AES) and is attached as Appendix F. In paragraph 2.7 of the AENE, there is discussion regarding the appropriate measurement of noise at the site. The AENE notes that the  $L_{10}$  descriptor used by the Selwyn District Plan does not well represent noise effects, particularly for intermittent noise sources and is no longer used in the more recent standards. The New Zealand Standard 6802 uses the  $L_{Aeq}$  descriptor and the Noise and Vibration Metrics Standard in the National Planning Standards also requires this measurement to be used. The AENE therefore assesses noise from the proposed recreation activities in terms of both the  $L_{Aeq}$  measurement and the District Plan  $L_{10}$  measurement.

### **Winter activities**

AES visited the site on a Saturday morning during winter (15 June) and measured noise levels from activities undertaken on site (a rugby game). A worst case (peak) operating scenario was then predicted based on all activities occurring on a busy Saturday morning or a Thursday evening for training. This included the rugby fields, the basketball court, play spaces (including a flying fox) and the open space/dog exercise area all being in use at the same time. The results are demonstrated in Figure 3.2 of the AENE. They demonstrate that noise levels from winter activities are expected to be less than 50 dB  $L_{Aeq}$  between 0700 and 2200 as specified in NZS 6802 at the nearest residential or notational boundaries. AES concludes that the effects of this noise will be minimal.

In terms of the District Plan and the  $L_{10}$  measurement, non-compliance with the 55 dB  $L_{A10}$  permitted level during 0730 to 2000 is predicted as follows:



- At the eastern boundary of the site (A & P Showgrounds) – 61 dB  $L_{A10}$ ; and
- At 50 High Street – 57 dB  $L_{A10}$ .

If activities were to occur between 0700 and 0730 or between 2000 and 2200, then the night time noise limit of 45 dB  $L_{A10}$  would be exceeded at 71 Tramway Road (50 dB  $L_{A10}$  predicted).

### ***Summer Activities***

During the summer, the AENE has considered a worse case scenario of cricket, tennis, bowls, basketball, play spaces (including a flying fox) and the open space/dog exercise areas all being in use at the same time. The results are demonstrated in Figure 3.3 of the AENE. They demonstrate that noise levels from summer activities are also expected to be less than 50 dB  $L_{Aeq}$  between 0700 and 2200 as specified in NZS 6802 at the nearest residential or notational boundaries. AES concludes that the effects of this noise will be minimal.

In terms of the District Plan and the  $L_{10}$  measurement, non-compliance with the 55 dB  $L_{A10}$  permitted level during 0800 to 2000 is predicted only at the eastern boundary of the site (A & P Showgrounds) – 58 dB  $L_{A10}$  predicted.

If activities were to occur between 0700 and 0730 or between 2000 and 2200, then the night time noise limit of 40 dB  $L_{A10}$  would be exceeded as follows:

- At the eastern boundary of the site (A & P Showgrounds) – 58 dB  $L_{A10}$ ;
- At 50 High Street – 48 dB  $L_{A10}$ ; and
- 71 Tramway Road – 47 dB  $L_{A10}$ .

The 70  $L_{AFmax}$  noise limit is also predicted to be exceeded at the A & P Showgrounds (77 dB  $L_{AFmax}$  predicted).

### ***Noise from vehicle movements***

The AENE has considered noise from vehicle movements around the reserve. Worst case scenario noise levels are predicted in Table 3.3 of the report. They demonstrate that noise levels from vehicle movements are expected to be less than 50 dB  $L_{Aeq}$  between 0700 and 2200 as specified in NZS 6802. Noise levels will be above the District Plan  $L_{A10}$  noise levels at the Living 1 and 2 Zoned sites to the south at all times and at the notional boundary of 71 Tramway Road between the hours of 0700 and 0730 and 2000 and 2200 only.

### ***Noise from activities between 2200 and 0700***

The AENE expects that the primary noise source during night-time hours are likely to be from the open space/dog exercise area. They have considered noise from dogs barking and from



vehicle movements. In terms of dogs barking, the AENE predicts compliance with both NZS 6802 and the District Plan and effects of this noise to be minimal.

In terms of vehicle movements, compliance with NZS 6802 is expected. The District Plan  $L_{A10}$  noise limits are expected to be exceeded at the notional boundary of the dwelling at 71 Tramway Road and the residential sites zoned Living 1 and Living 2 to the south. Effects of this noise however, is expected to be minimal because noise levels of less than 40 dB  $L_{Aeq}$  are expected at all neighbouring noise sensitive sites between 2200 and 0700 hours.

### **Summary**

The AENE considers that it is reasonable to assess noise from activities on the site of the Kirwee Reserve in accordance with NZS 6802. Based on this noise descriptor ( $L_{Aeq}$ ) and with a 2m high acoustic fence along the residential site boundaries to the south west, predicted noise levels comply with the daytime and night-time noise limits of NZS 6802.

In terms of compliance with the District Plan and based on worst case scenarios of all activities occurring at once, the  $L_{A10}$  and  $L_{Amax}$  levels may be exceeded at neighbouring properties. The AENE concludes:

*However, as discussed above, the noise levels are expected to comply with the recommended  $L_{Aeq}$  noise levels at the neighbouring noise sensitive sites. We would therefore expect the associated noise effects to be minimal.*

### **Lighting**

Four light poles of approximately 24m in height are likely to be installed to illuminate the No. 1 Rugby Field (subject to a separate outline plan of works application) and four light poles of approximately 18 m in height will likely be installed to replace the existing poles to illuminate the No. 2 Rugby Field. The lighting required to illuminate the second rugby field is located partially on the site subject to this NOR.

It is proposed to replace the existing light poles which illuminate the No. 2 Rugby Field and erect new light poles to illuminate the No.1 Rugby Field. These lighting changes will form part of a separate outline plan for works application, however a Lighting Prediction Plan is attached as Appendix G which predicts the lux levels for the playing fields, car parking areas and potential light spill beyond the boundary of the site. This plan is provided to demonstrate that it is possible to achieve the lighting requirements of the site, while avoiding adverse effects from light spill on adjoining properties.

Rule E13.1.11.1 of the Township Volume of the District Plan requires that any parking or loading areas which are required at night time be illuminated to a minimum maintained level of 2 lux, with high uniformity, during the hours of operation. The Lighting Prediction Plan

demonstrates that this can be achieved within all parking areas. There is no equivalent rule in the Rural Volume of the District Plan.

In terms of light spill, Rule 9.18.1.2 of the Rural Volume of the Plan states that any activity involving lighting is permitted provided the maximum light spill does not exceed 3 lux on to any part of any other adjoining property or any road reserve. Rule 10.7.1 of the Township volume also requires that lighting does not have a lux spill of more than 3 on to any part of any adjoining property. It additionally requires that any fixed, exterior lighting is directed away from adjacent properties and the road.

As demonstrated by the Lighting Prediction Plan, lighting can be installed that will not exceed 3 lux beyond the boundary of the site. The lighting will also be designed so that it is directed downwards and away from adjacent properties and roads.

## **CPTED Assessment**

An assessment of the proposal against the Crime Prevention Through Environmental Design (CPTED) principles has been undertaken and is attached in Appendix H. This assessment considers provision of parking, facilitation of pedestrian movement and safe linkages through the site, safe lighting and provision of signage. Consideration has also been given to the location and context of vulnerable facilities, expected use patterns and the design and placement of landscape elements. Physical protection measures are also proposed in terms of bollards to restrict vehicle access, speed humps to limit speeds in the car park and lockable gates should issues arise. As noted in the CPTED assessment, there has been extensive community consultation during the design process which provided a better undertaking of the local context and allowed potential issues to be identified early and addressed through the design.

## **Positive Effects**

It is considered that the proposal will result in a number of positive effects for Kirwee and the wider Selwyn District as the additional land designated for recreation reserve will provide for the future sports and recreation needs of the Kirwee community. In particular, the site will provide:

- The ability to realign the existing number two rugby field and provide a second junior rugby field and a second (dedicated) cricket oval;
- A formed perimeter pedestrian accessway;
- Native and specimen tree planting;
- An open space area that can be used for off-leash dog exercise;
- Informal areas for children's play including a bike pump track catering for children of all ages;

- Amenities available for use by the general public such as public toilets, shelter, picnic areas and seating; and
- Additional car parking to cater for activities located within new areas of the reserve;

## Summary

Overall, it is considered that the proposed extension to the existing Kirwee Recreation Reserve will result in a high quality recreation reserve that will meet the future demand for recreation space in Kirwee. The assessment of effects above demonstrates that actual and potential effects of the proposal in terms of visual effects, traffic, noise and lighting are less than minor and can be adequately mitigated. The proposal has also been designed in accordance with CPTED principles.

## Alternative Sites, Routes, and Methods

No alternative sites have been considered, given that SDC own the land adjacent to the existing reserve and it is logical to provide additional recreational facilities adjacent to the existing Kirwee Recreation Reserve, as opposed to locating new facilities elsewhere. There is insufficient room on the land located to the east and north of the existing reserve, given the existing land uses – Kirwee Cemetery and the Kirwee Showgrounds and Community Hall.

The new designation is required to enable the extension of the existing recreation reserve and to provide additional facilities that are proposed as part of the Kirwee Reserve Master Plan (Appendix C).

There are no alternative routes or methods that can be considered to provide additional recreation facilities of this scale to the Kirwee community. There is insufficient space at the existing reserve for the proposed sports fields and community facilities to be constructed, and the existing rugby and cricket facilities are at capacity.

## Consultation

In accordance with Form 18 – Schedule 1 (Resource Management (Forms, Fees, and Procedure) Regulations 2003) the requiring authority is required to set out what consultation (if any) has been undertaken with parties that are likely to be affected.

The Council has been working closely with the Kirwee community and reserve committees over the past two years to engage with local residents, sports clubs and organisations. The group is known as the Kirwee Reserve Development Working Group. The following consultation has been carried out:

### **Kirwee Recreation Reserve Based Sports Clubs**

SDC distributed surveys to the following organisations, to gauge the need for additional recreation facilities in Kirwee:

- Kirwee Bowling Club
- Kirwee Netball Club
- Kirwee Tennis Club
- Kirwee Cricket Club
- Kirwee Rugby Club

In summary, the cricket and rugby clubs require additional playing spaces to provide for anticipated growth in the number of club members. Both the rugby and cricket club recognised the need for additional playing fields to be able to provide for different formats of rugby and cricket games to retain club members.

### **Wider Kirwee Community Consultation**

Consultation with the wider Kirwee community has been carried out by SDC over the past 18 months and has included various methods of engagement including a community Facebook page, local newspapers and a display board at the Courtenay A&P Show. The feedback from this wider consultation has helped inform the proposed facilities to be constructed at the new designated site.

### **Adjacent Landowners**

A letter was sent to the owners of properties in the immediate vicinity of the proposed new reserve boundary. The letter included a copy of the draft master plan and landscape drawings and sought feedback on the proposal. The letter also included information on the designation process and invited landowners to a community meeting held on 24 August 2019. Those landowners contacted are listed below. A copy of the letter sent to land owners and their locations relative to the reserve are identified on the plan attached in Appendix I:

- *17 High Street, Kirwee;*
- *42 High Street, Kirwee;*
- *44 High Street, Kirwee;*
- *46-48 High Street, Kirwee;*
- *22 Tramway Road, Kirwee;*
- *24 Tramway Road, Kirwee;*
- *51 Tramway Road, Kirwee;*
- *71 Tramway Road, Kirwee;*
- *77 Tramway Road, Kirwee;*
- *1465 Courtenay Road, Kirwee; and*
- *Courtenay A & P Association*

Feedback was requested by 29 August 2019 and a summary of the written feedback received and the Kirwee Reserve Development Working Group's response is attached as Appendix J. The main issues raised as part of this feedback included:

- The need to retain existing, or improve, shelter planting within the reserve;
- Feedback on suggested tree species;
- Priorities for development; and
- The provision of an off-leash dog exercise area.

### Community Meeting

An informal community drop-in session was held on Saturday 24 August at the Kirwee Reserve Pavilion. This was well attended by approximately 30 people, including members of the Kirwee community and reserve committees. Feedback provided was similar to the written feedback provided and included the following:

<b>Traffic and Parking</b>	
<b>Issue raised</b>	<b>Council response</b>
Relocation of the 50km/hr speed limit change on Tramway Road	The ITA also recommends that the speed limit threshold be moved approximately 50m further north west and this would be pursued outside of the designation process.
Filling in of an old water race and removal or relocation of existing native planting to improve visibility	This is proposed to occur.
Plans for the road reserve between the proposed vehicle crossing and the reserve boundary to the north west	It is proposed to grass this area to provide a safe area for walking. If vehicles use this area for parking, measure can be undertaken (such as removable bollards) to prevent this.
Availability of the No.1 rugby field for parking during events such as the Courtenay A & P Show Day and access for emergency service and maintenance vehicles	Vehicles would still be able to access the playing fields (e.g. via removable bollards) and parking would be available for show day as well as access for emergency and maintenance vehicles.
Concerns around freedom campers and boy racers	Speed humps will be installed to reduce vehicle speeds within the parking areas and gates or a security chain could be installed if freedom campers or boy racers became a problem at night time.
Suggestion of a pedestrian accessway between Kirwee and Darfield	This is outside of the scope of the proposed Notice of Requirement.
<b>Dog Exercise Area</b>	

Queries around whether this would be fully fenced	The existing reserve is currently available for use as an off leash dog exercise area in accordance with the Dog Control Bylaw 2012 and this will extend to the additional land to be designated. Dogs must be kept a minimum of 5m from a sports field which is in use for an organised event. This is an operational issue in terms of the use of the dog exercise area and could be reviewed in the future if it is identified as a problem.
Would rubbish bins and dog poo bags be provided	Rubbish bins would be provided and it is foreseeable that dog poo bags would also be provided.
<b>Trees</b>	
Concerns around potential loss of the pine shelterbelt by the No.2 rugby field	The aim is for the reserve to be as multi-purpose as possible and this necessitates the removal of these trees. Planting around the boundary of the additional land and No. 1 cricket oval would be established as part of Stage 1 to ensure shelter is provided. These trees would be purchased at 2-3 years old and will be irrigated to ensure they establish as quickly as possible. Native planting on the western boundary has already been undertaken.
Existing trees down Anzac Avenue were supported and residents would like to see an extension of the existing daffodil planting	This idea is supported
Fruit trees within the reserve were encouraged	This idea is supported
<b>Lighting</b>	
Concern around potential for glare directed down Tramway Road from proposed floodlighting of the rugby fields	Lighting technology has improved significantly since the existing rugby floodlights were installed. These lights will be removed from the field and new floodlighting installed. This new lighting would be shielded and directed downwards so that there is no light spill beyond the rugby fields. The lighting assessment attached as Appendix G confirms that this can be achieved so there is no light spill or glare beyond the boundary of the reserve.

<b>Kirwee Volunteer Fire Brigade</b>	
Discussion regarding water requirements for training and competitions	Council will continue to liaise with the fire brigade to ensure fire hydrants and drainage pads are located in the appropriate place within the reserve (i.e. away from the playing fields).
<b>Facilities</b>	
Clarification on water storage and irrigation requirements	The new fields and landscaping would be irrigated via onsite storage tanks filled with water from the Central Plains Irrigation Scheme.
Supportive of the playgrounds, pump track and community hub area. Question regarding playground surface.	This detail is yet to be decided. Pump track will be a natural, rustic area. Community hub area will include seating and perhaps a barbeque so this area can be used for birthday parties, Easter egg hunts etc

### Summary

The proposed designation allowing for the extension to the existing Kirwee Recreation Reserve is generally well supported by the community, however it is requested that this Notice of Requirement be publicly notified due to public interest and to give residents the ability to make formal submissions.

## Conclusion

The purpose of this notice is to include a new designation in the Selwyn District Plan – Township Volume ('the District Plan'), to enable the future development and subsequent use of recreational facilities on the site. This will be required in the future to respond to both current demand and growth projections for the area.

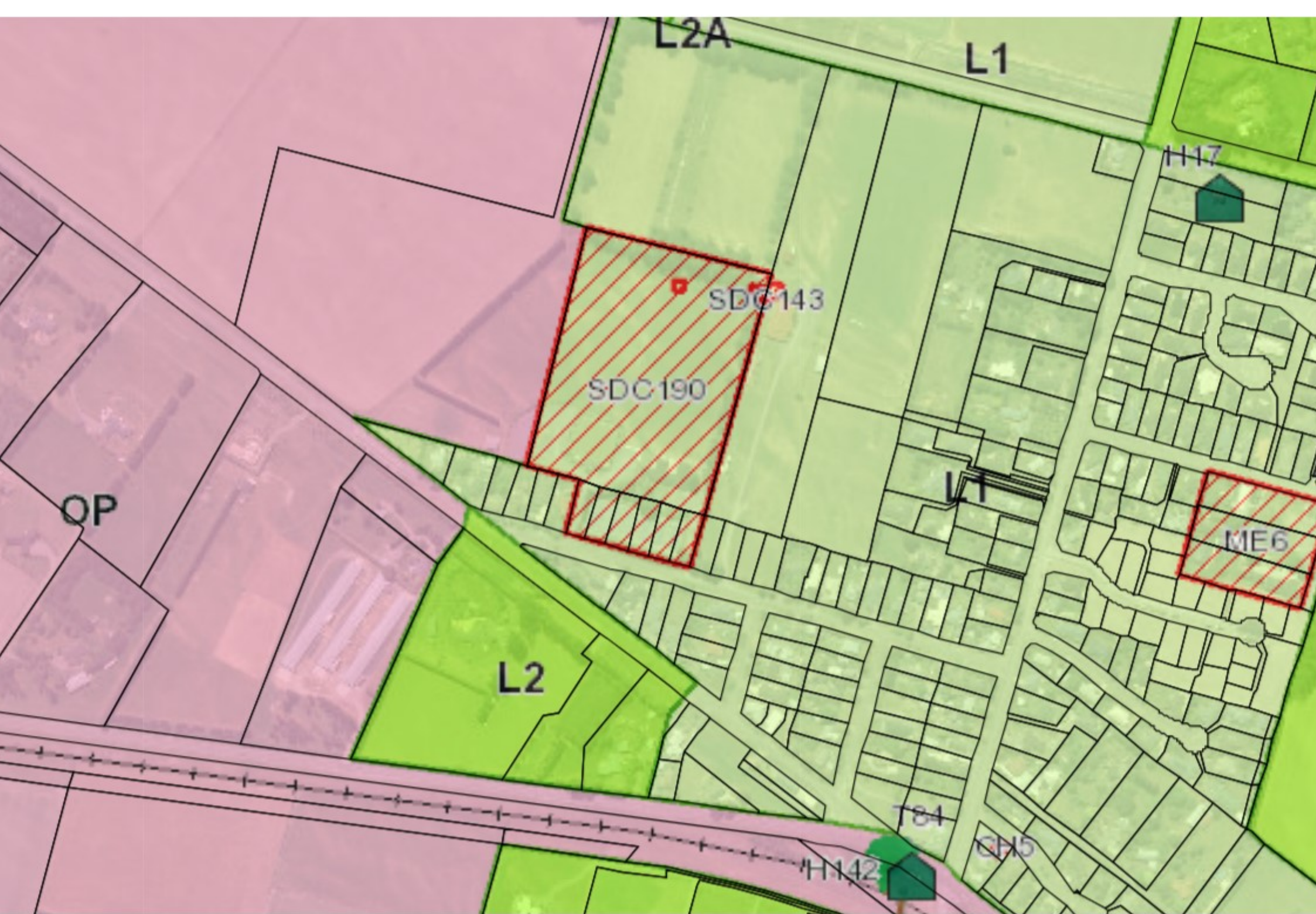
The actual and potential environmental effects and the proposed mitigation measures have been assessed, the designation has been considered against the provisions of the relevant policy documents and plans, and alternatives, the Council's objectives and consultation undertaken are outlined. Overall, the site is considered eminently suitable for a recreation reserve being adjacent to the existing reserve, effects can be avoided, remedied or mitigated and the development is entirely consistent with relevant planning documents.

The requiring authority requests that Council proceed to process this notice of requirement pursuant to section 169 of the RMA, and anticipates Council's recommendation in due course as per section 171(2) and (3).



## **Appendix A**

### **Location and Designation**



## **Appendix B**

### Computer Freehold Register



**RECORD OF TITLE  
UNDER LAND TRANSFER ACT 2017  
FREEHOLD  
Search Copy**



  
R. W. Muir  
Registrar-General  
of Land

**Identifier** 778843  
**Land Registration District** Canterbury  
**Date Issued** 27 April 2017

**Prior References**

CB39B/114

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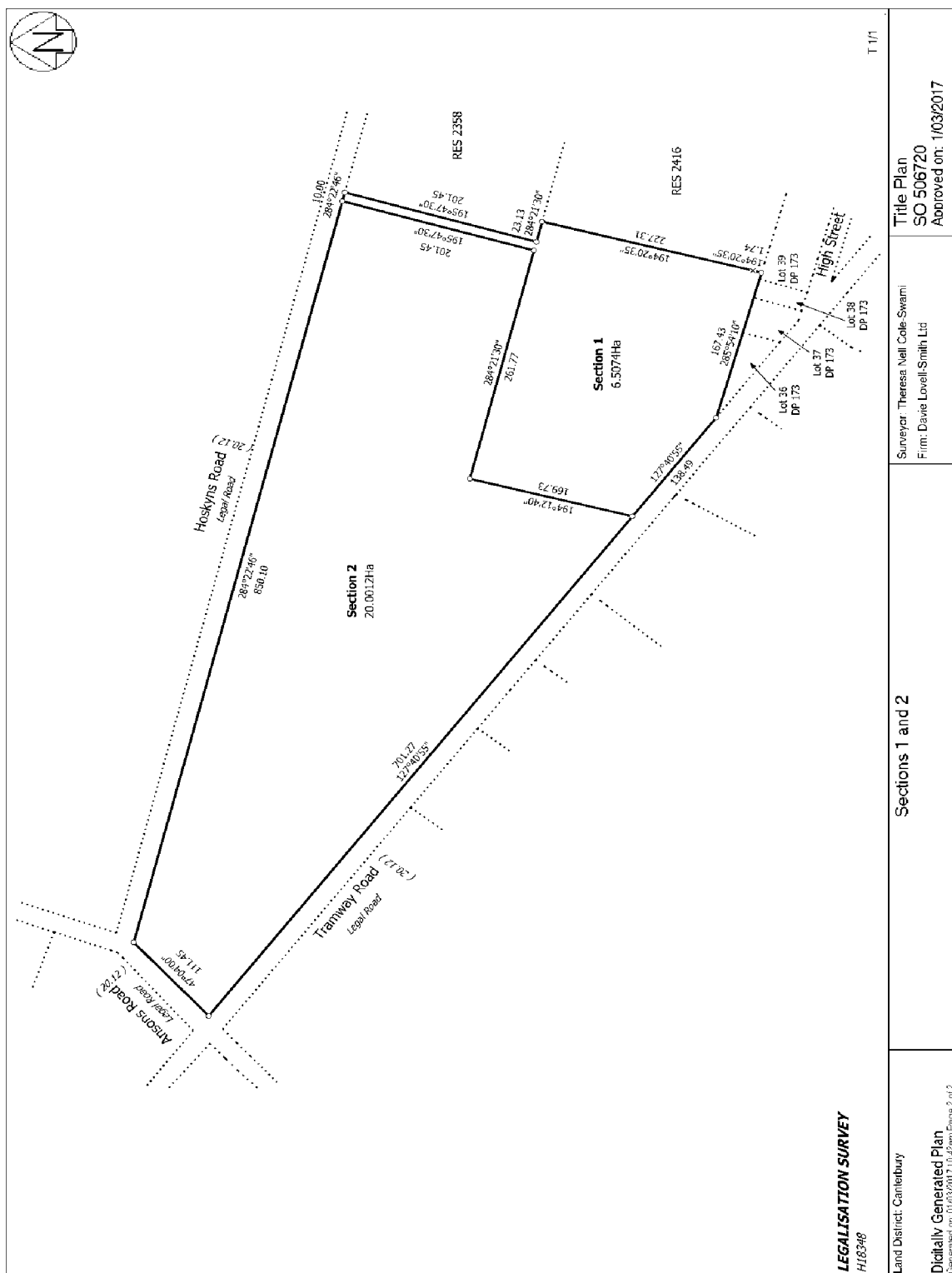
<b>Estate</b>	Fee Simple
<b>Area</b>	6.5074 hectares more or less
<b>Legal Description</b>	Section 1 Survey Office Plan 506720
<b>Purpose</b>	Reserve purposes

**Registered Owners**

Selwyn District Council

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**Interests**



## **Appendix C**

### **Proposed Kirwee Reserve Master Plan**





REV	DATE	DESCRIPTION
A	01.04.19	DRAFT FOR DISCUSSION
B	31.05.19	DRAFT FOR DISCUSSION
C	26.06.19	DRAFT FOR NOTIFICATION
D	21.11.19	DRAFT FOR NOTIFICATION



## **Appendix D**

### **Preliminary Site Investigation**

# ***Soil Contamination Risk Preliminary Site Investigation Report***

## ***Kirwee Reserve Extension Tramway Road, Kirwee***

*January 2019*



***Malloch Environmental Ltd***

*Physical address – 19 Robertsons Road, Kirwee*

*Postal address – P O Box 259, Kirwee 7543*

*021 132 0321*

*[www.mallochenviro.co.nz](http://www.mallochenviro.co.nz)*

## **QUALITY CONTROL AND CERTIFICATION SHEET**

**Client:** Selwyn District Council

**Date of issue:** 23 January 2019

### **Report written by:**

**Fran Hobkirk, Environmental Scientist, BSc**  
(2 years contaminated land experience)

**Signed:** 

### **Report reviewed and certified as a Suitably Qualified and Experienced Practitioner by:**

**Nicola Peacock, Principal Environmental Engineer, NZCE, CEnvP**  
(10 years contaminated land experience within 26 years environmental experience)

**Signed:** 



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A	Historic Certificates of Title
B	Historic Aerial Photographs
C	LLUR Statement

## **1 Executive Summary**

The subject site consists of a single rural lot accessed from Tramway Road in Kirwee. It is proposed to develop the site for a recreational use. This will change the use of the land and may result in disturbance of soils. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS) require an assessment of the likelihood of soil contamination being present. It is noted also that Malloch Environmental Ltd is obligated to consider the requirements of Section 10 (4) of the Health and Safety at Work (Asbestos) Regulations 2016. This report details the work undertaken to assess the risks.

The majority of the subject site has been used for forestry and then pasture and this use is highly unlikely to have caused a risk to human health or the environment. There is no evidence of HAIL activities or industries having occurred on these areas of the subject site, now or in the past. The south-eastern corner of the site was developed for a recreational use with sports fields in the mid-2000s. Use of persistent pesticides on sports turfs is included on the Hazardous Activities and Industries List (HAIL). However, given the era the sports fields were created it is considered highly unlikely that any persistent pesticides would have been used, and therefore no likely HAIL activity has occurred. The subject site is considered suitable for recreational use with no further investigations required.

In terms of planning status at the time of writing of this report, the NESCS does not apply.

## **2 Objectives of the Investigation**

This report has been prepared in accordance with the Ministry for the Environment's "Contaminated Land Management Guidelines No 1: Reporting on Contaminated Sites in New Zealand". This report includes all requirements for a Stage 1 Preliminary Site Investigation report. This is one of the methods described in Section 6(3) of the NESCS to establish whether the regulations apply. The objective is to determine whether there is any risk of potential contamination that would warrant further investigation.

## **3 Scope of Work Undertaken**

The scope of the work undertaken has included:

- Review of Selwyn District Council property files
- Obtaining ECan data from the Listed Land Use Register (LLUR)
- Search of LINZ NZ orchard database
- Review of historic aerial photos
- Review of historic titles
- Preparation of report in accordance with MfE guidelines

#### 4 Site Identification

The site is accessed from Tramway Road in Kirwee as shown on the plan in **Figure 1** below. The site is legally described as Section 1 SO 506720 and has a total area of approximately 6.5074 Ha.



Figure 1 – Location Plan

## 5 Site Description and Surrounding Environment

The subject site is generally flat rural land on Tramway Road in Kirwee. Part of the subject site has already been developed for a recreational use with sports fields, a parking area and shed. It is bounded by similar rural land to the north, by recreational land to the east and rural residential land to the south.

## 6 Geology and Hydrology

The ECan GIS describes the soils as Lismore stony silty loam. Soil trace elements are 'Regional, Yellow Brown Stony'. Wells in the area indicate that topsoils are underlain by layers of sandy gravels, clayey gravels and gravels.

The site lies over the unconfined/semi-confined gravel aquifer system. Ground water levels recorded on nearby and on-site bore logs are between 63.37 and 83.4m deep. The direction of ground water flow is generally in a south-easterly to southern direction. The nearest down gradient well lies approximately 96m to the east. This is a public water supply well.

According to ECan's GIS an open drain crosses the site where it connects to Hoskyns Road.

## 7 Site History

### 7.1 Previous Site Ownership and Use

Historic Certificates of Title were searched and the following relevant ownership information was obtained:

Aug 1875 - Gazette Notice declaring land as reserve  
Jun 1994 - Selwyn Plantation Board  
Apr 2011 - Selwyn District Council

Note that some of the older information was of poor quality and difficult to follow, therefore the accuracy of the spelling of names and dates is not guaranteed.

Copies of the Historic Titles are included in **Appendix A**.

### 7.2 District Council Records

The Selwyn District Council (SDC) property file was reviewed and only included a lease and surrender of lease documents.

### 7.3 Regional Council Records

The ECan Listed Land Use Register Statement lists part of the subject site for 'A10 - Persistent pesticide bulk storage or use' with sports turfs noted on aerial photographs from 1966 until the present day. Additionally, bunds surrounding the Kirwee Domain playing fields were identified as potentially containing arsenic contaminated material. The top of the bunds were XRF tested and all results complied with recreational land use soil guideline values and were generally at expected background levels. The site is defined as 'Verified HAIL has been partially investigated'.

A nearby site is also listed:

- Kirwee Cemetery, 1801 Hoskyns Road for 'G1 - Cemeteries' since 1879 until the present day. The site is defined as 'Verified HAIL has not been investigated'.



A nearby investigation at 43 Tramway Road was undertaken by Kirk Roberts Consulting Engineers Ltd in July 2018. The Preliminary Site Investigation found no evidence of any HAIL activities having occurred at the site.

See LLUR Statement in **Appendix C**.

Resource consent information was sourced from the GIS mapping system. There are no active resource consents for the subject site. There are active resource consents for adjacent lots to discharge domestic sewage effluent into ground and to take and use groundwater.

#### **7.4 LINZ Records**

The LINZ Orchard layer does not show the subject site or adjacent lots as having listed orchards.

#### **7.5 Review of Historic Aerial Photographs**

A total of eight aerial photos (see copies in **Appendix B**) have been used to assess the historic use of the site as detailed below:

- The earliest photo is from **1941** and has been sourced from ECan's GIS. The subject site is part of a forestry block. Beyond the subject site to the north-east lies Kirwee Cemetery. Kirwee Showgrounds lies beyond the subject site to the east with animal pens and hall. There is a group of sheds to the south of the subject site.
- A photo from **1955** is also sourced from ECan's GIS. There are no significant changes to the subject site. A building has been added on the adjacent land to the east. Two dwellings have been built to the south of the subject site. Tennis courts have been constructed beyond the subject site to the south-east.
- A photo from **1965** is sourced from ECan's GIS and shows no significant changes to the subject site. The adjacent land to the east appears to have a recreational use with a sports field and a bowling green. Three buildings have been constructed on this land adjacent to the bowling green.
- A photo from **1975** is sourced from ECan's GIS and shows no significant changes to the subject site. A third dwelling has been built to the south of the subject site. Three poultry houses have been constructed beyond the subject site to the south, across Tramway Road.
- A photo from **1982** is sourced from ECan's GIS and shows the trees have been removed on the south-eastern corner of the site. This corner is now grassed. There are no significant changes to the surrounding area.
- A photo from **1995** is sourced from ECan's GIS and shows no significant changes to the subject site. Beyond the subject site to the south, two of the three poultry houses have been extended. Beyond the subject site to the south-east two additional sports courts have been constructed.
- A photo from **2004** is sourced from ECan's GIS and shows the south-eastern corner of the subject site is being developed as an extension of the reserve and has a recreational use. The trees on the rest of the subject site appear to have been harvested. Beyond the subject site to the south the third poultry house has been extended.
- The most recent aerial photo reviewed, dated **2015**, is sourced from ECan's GIS. The area of the subject site not yet developed as reserve is now pasture. A shed has been built on the reserve area of the subject site. Rural residential development has occurred to the

south of the subject site. The tennis club building to the east of the subject site has been extended.

## **8 HAIL Uses and Possible Types of Contaminants Associated with Past Use**

### ***A - Chemical manufacture, application and bulk storage***

#### ***10. Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds***

The subject site has been used as a forestry block until the early 1980s. The south-eastern corner of the site then became pasture. In the mid-2000s the south-eastern corner of the site was developed for a recreational use. The rest of the site became pasture.

The corner of the site developed for recreation in the mid-2000s is listed on the LLUR for 'A10 - Persistent pesticide bulk storage or use' because of the sports fields. However, given the era the sports fields were created it is considered highly unlikely that any persistent pesticides would have been used on the area.

The rest of the site has been used for forestry and then pasture. The normal uses of fertilisers and pastoral weed controls associated with these uses are unlikely to have caused soil contamination that would pose a risk to human health.

### ***H - Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment***

A cemetery is located approximately 74m east of the subject site. It is considered highly unlikely that any contamination would have migrated from the cemetery onto the subject site.

A bowling green has been located approximately 35m east of the subject site since sometime between 1955 and 1965. Given the separation distance it is considered unlikely that any sprays used to maintain the bowling green would have migrated to the subject site in sufficient quantity to pose a risk to human health in a recreational use.

### ***I - Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment***

There is no evidence of any buildings on the subject site before the mid 2000's. It is considered highly unlikely that soil contamination from lead-based paint products or asbestos containing materials exists on the subject site in sufficient quantities that would pose a risk to human health.

## **9 Basis for Soil Guideline Values (SGV)**

### **9.1 Activity Description**

This report has been written for the following potential activities:

- Development of the site for recreational use,
- Soil disturbance activities associated with the above use and development of the site

## 9.2 Zoning

The subject site is currently zoned Outer Plains.

## 9.3 Soil Guideline Values

Human health soil contaminant standards for a group of 12 priority contaminants were derived under a set of five land-use scenarios and are legally binding under The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Health) Regulations 2011 (NESCS). These standards have been applied where applicable. The regulations describe these as Soil Contaminant Standards. For contaminants other than the 12 priority contaminants, the hierarchy as set out in the Ministry for the Environment Contaminated Land Management Guidelines No 2 has been followed. These are generally described as Soil Guideline Values. For simplicity, this report uses the terminology Soil Guideline Values (SGV) when referring to the appropriate soil contaminant standard or other derived value from the hierarchy. For soil, guideline values are predominantly risk based, in that they are typically derived using designated exposure scenarios that relate to different land uses. For each exposure scenario, selected pathways of exposure are used to derive guideline values. These pathways typically include soil ingestion, inhalation and dermal adsorption. The guideline values for the appropriate land use scenario relate to the most critical pathway.

The land-use scenarios applicable for this site would be 'recreational' and 'commercial/industrial/outdoor maintenance workers' as a proxy for construction workers disturbing soils.

## 10 Site Characterisation and Conclusion

The majority of the subject site has been used for forestry and then pasture and this use is highly unlikely to have caused a risk to human health or the environment. There is no evidence of HAIL activities or industries having occurred on these areas of the subject site, now or in the past.

The south-eastern corner of the site was developed for a recreational use with sports fields in the mid-2000s. Use of persistent pesticides on sports turfs is included on the Hazardous Activities and Industries List (HAIL). However, given the era the sports fields were created it is considered highly unlikely that any persistent pesticides would have been used, and therefore no likely HAIL activity has occurred.

The subject site is considered suitable for recreational use with no further investigations required.

## 11 Planning Status

In terms of the NESCS section 5 (7) states that the land is considered to be covered if an activity or industry described in the HAIL is being undertaken on it; or has been undertaken on it; or it is more likely than not that an activity is being or has been undertaken on it.

Section 6 describes the methods for determining whether the land is as described in section 7. Method 6 (3) is to rely on a Preliminary Site Investigation.

This Preliminary Site Investigation has found that there is no evidence of an activity or industry described in the HAIL occurring on the subject site now or in the past. In terms of planning status at the time of writing of this report, the NESCS does not apply to the site.

## **12 Limitations**

Malloch Environmental Limited has performed services for this project in accordance with current professional standards for environmental site assessments, and in terms of the client's financial and technical brief for the work. Any reliance on this report by other parties shall be at such party's own risk. It does not purport to completely describe all the site characteristics and properties. Where data is supplied by the client or any third party, it has been assumed that the information is correct, unless otherwise stated. Malloch Environmental Limited accepts no responsibility for errors or omissions in the information provided. Should further information become available regarding the conditions at the site, Malloch Environmental Limited reserves the right to review the report in the context of the additional information.

Opinions and judgments expressed in this report are based on an understanding and interpretation of regulatory standards at the time of writing and should not be construed as legal opinions. As regulatory standards are constantly changing, conclusions and recommendations considered to be acceptable at the time of writing, may in the future become subject to different regulatory standards which cause them to become unacceptable. This may require further assessment and/or remediation of the site to be suitable for the existing or proposed land use activities. There is no investigation that is thorough enough to preclude the presence of materials at the site that presently or in the future may be considered hazardous.

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## ***Appendix A – Historic Certificates of Title***



**RECORD OF TITLE  
UNDER LAND TRANSFER ACT 2017  
FREEHOLD  
Historical Search Copy**



  
R.W. Muir  
Registrar-General  
of Land

Constituted as a Record of Title pursuant to Sections 7 and 12 of the Land Transfer Act 2017 - 12 November 2018

**Identifier** **778843**  
**Land Registration District** **Canterbury**  
**Date Issued** 27 April 2017

**Prior References**

CB39B/114

---

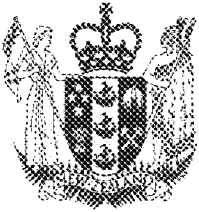
<b>Estate</b>	Fee Simple
<b>Area</b>	6.5074 hectares more or less
<b>Legal Description</b>	Section 1 Survey Office Plan 506720
<b>Purpose</b>	Reserve purposes

**Original Registered Owners**

Selwyn District Council

---

**Interests**



# COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

Historical Search Copy



  
R. W. Muir  
Registrar-General  
of Land

**Identifier** CB39B/114  
**Land Registration District** Canterbury  
**Date Issued** 02 June 1994

**Cancelled**

## Prior References

GN A113371.1

---

<b>Estate</b>	Fee Simple
<b>Area</b>	26.4993 hectares more or less
<b>Legal Description</b>	Section 2 Survey Office Plan 4514

## Original Proprietors

Selwyn Plantation Board Limited

---

## Interests

A141854.1 Covenant in Transfer - 29.10.1994 at 11:45 am  
6182948.1 Revocation of Covenant A141854.1 - 14.10.2004 at 9:00 am  
8730931.1 Transfer to Selwyn District Council - 1.4.2011 at 4:27 pm  
10750907.1 Transfer of Section 1 SO 506720 to Selwyn District Council - 27.4.2017 at 9:19 am  
10750907.2 CTs issued - 27.4.2017 at 9:19 am

<b>Legal Description</b>	<b>Title</b>
Section 1 Survey Office Plan 506720	778843
Section 2 Survey Office Plan 506720	778844

CANCELLED



## References

Prior C/T  
Gazette Notice A113371/1  
Transfer No.  
N/C. Order No. A115907/1

Land and Deeds 69



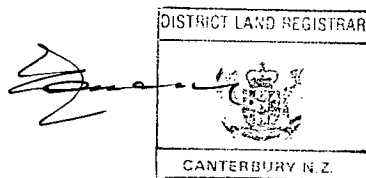
## REGISTER

## CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 2nd day of June one thousand nine hundred and ninety four under the seal of the District Land Registrar of the Land Registration District of CANTERBURY

WITNESSETH that SELWYN PLANTATION BOARD for plantation purposes ---

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 26.4993 hectares or thereabouts being Section 2 Survey Office Plan 4514 ---

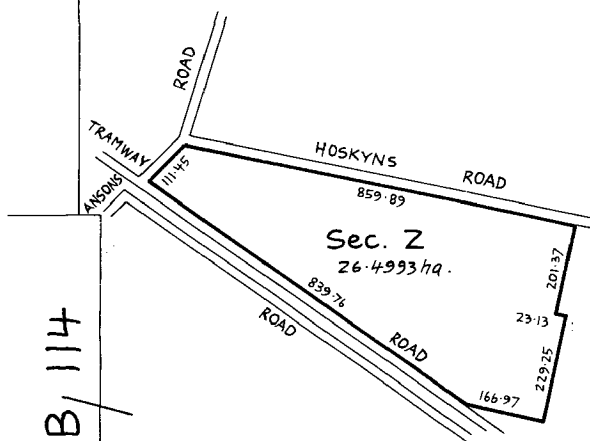


ASSISTANT LAND REGISTRAR

Transfer A141854/1 to Selwyn Plantation Board Limited at Darfield (Covenant) -  
29.10.1994 at 11.45am

*[Signature]*  
for A.L.R.

Selwyn District



Measurements are Metric  
Ref: S.O. 4514

No. 39B/114

No. 39B/114

H22

H22

## ***Appendix B – Historic Aerials***

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0 0.06 0.12 0.18 0.24 Kilometres

Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:54:21 a.m.



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0 0.06 0.12 0.18 0.24 Kilometres

Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:55:11 a.m.





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Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:56:07 a.m.





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0 0.06 0.12 0.18 0.24 Kilometres

Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:57:08 a.m.





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Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:58:14 a.m.





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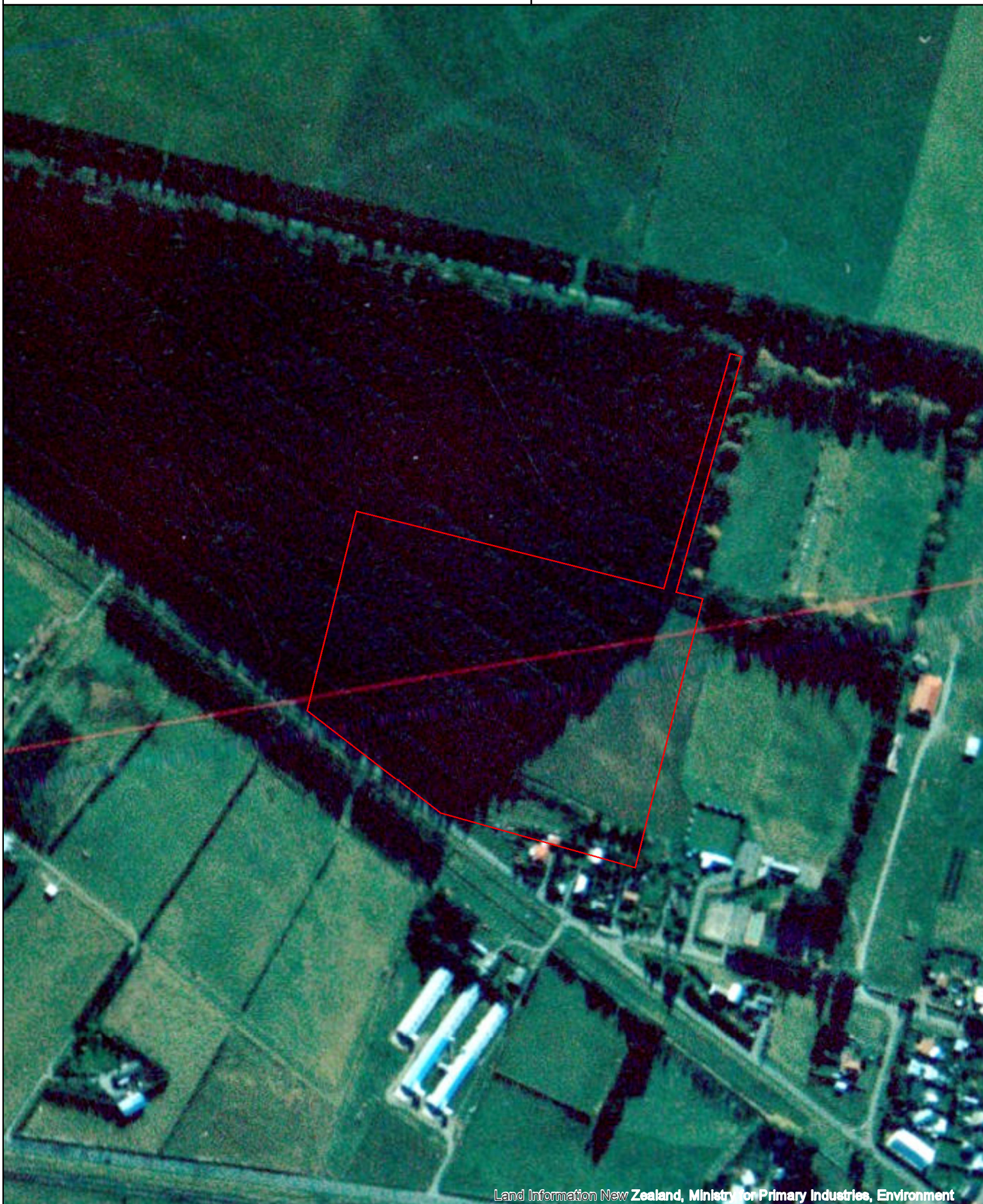
Information from this map may not be used for the purposes of any legal disputes. The user should independently verify the accuracy of any information before taking any action in reliance upon it.



0 0.06 0.12 0.18 0.24  
Kilometres

Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:58:49 a.m.





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Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:59:30 a.m.





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Scale: 1:4,000 @A4

Map Created by MEL on 13/01/2019 at 9:53:04 a.m.



## ***Appendix C – LLUR Statement***



# Property Statement from the Listed Land Use Register

Visit [www.ecan.govt.nz/HAIL](http://www.ecan.govt.nz/HAIL) for more information about land uses.



Customer Services  
P. 03 353 9007 or 0800 324 636

PO Box 345  
Christchurch 8140

P. 03 365 3828  
F. 03 365 3194  
E. [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz)

[www.ecan.govt.nz](http://www.ecan.govt.nz)

Date:	06 January 2019
Land Parcels:	Section 1 SO 506720 Valuation No(s): 2419020100



*The information presented in this map is specific to the area within a 100m radius of property you have selected. Information on properties outside the search radius may not be shown on this map, even if the property is visible.*

## Summary of sites:

Site ID	Site Name	Location	HAIL Activity(s)	Category
120041	RES 2416, Tramway Road	RES 2416, Tramway Road	A10 - Persistent pesticide bulk storage or use;	Partially Investigated
123856	Kirwee Cemetery	1801 Hoskyns Road, Kirwee	G1 - Cemeteries;	Not Investigated

*Please note that the above table represents a summary of sites and HAILS intersecting the area of enquiry within a 100m buffer.*

## Information held about the sites on the Listed Land Use Register

### Site 120041: RES 2416, Tramway Road (Intersects enquiry area.)

Site Address:	RES 2416, Tramway Road
Legal Description(s):	RES 2416, Section 2 SO 4514

**Site Category:**

Partially Investigated

**Definition:**

Verified HAIL has been partially investigated.

**Land Uses (from HAIL):**

Period From	Period To	HAIL land use
1966	Present	Persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glass houses or spray sheds

**Notes:****7 Dec 2015**

This record was created as part of the Selwyn District Council 2015 HAIL identification project.

**7 Dec 2015**

Area defined from 1966 to Present aerial photographs. Horticultural activities (persistent pesticides) were noted in aerial photographs reviewed. (Sports turfs: Bowling green, cricket pitch).

**6 Jul 2017**

As a result of investigations at Stanwood Grove, Darfield the earth bunds surrounding the Kirwee Domain playing fields were identified as potentially containing arsenic contaminated material. The top of the bunds were analysed using an XRF device to measure arsenic concentrations on site. A sample was collected every 10 metres. All results complied with recreational land use soil contaminant standard and were generally at expected background concentration for the area. No soil samples were submitted for laboratory analysis. The reported volume of material imported would be a very minor proportion of the approximate 3,000 m3 bund.

**Investigations:**

There are no investigations associated with this site.

**Site 123856: Kirwee Cemetery** (Within 100m of enquiry area.)**Site Address:**

1801 Hoskyns Road, Kirwee

**Legal Description(s):**

RES 2358

**Site Category:**

Not Investigated

**Definition:**

Verified HAIL has not been investigated.

**Land Uses (from HAIL):**

Period From	Period To	HAIL land use
1879	Present	Cemeteries

**Notes:****27 Feb 2015**

This record was created as part of the Selwyn District Council 2015 HAIL identification project.

**27 Feb 2015**

Area defined from 1941 to present aerial photographs. A cemetery was noted in aerial photographs reviewed.

**27 Feb 2015**

Area defined from 1941 to present aerial photographs. A cemetery was noted in aerial photographs reviewed.

**Investigations:**

There are no investigations associated with this site.

**Information held about other investigations on the Listed Land Use Register****27 Jul 2018**

**INV 218832: Preliminary Site Investigation, 43 Tramway Road, Kirwee 7571** (Preliminary Site Investigation)  
Kirk Roberts Consulting Engineers Limited

**Summary of investigation(s):**

A Preliminary Site Investigation (PSI) was undertaken in July, 2018, at 43 Tramway Road, by Kirk Roberts Consulting Engineers Limited. The investigation found no evidence of any HAIL activities having occurred at the site, but did note some small scale hazardous substance storage in the shed to the west of the main dwelling on the original lot. Because no HAIL activities were identified on the property, no site or activity has been created on the LLUR.

**For further information from Environment Canterbury, contact Customer Services and refer to enquiry number ENQ225186.**

**Disclaimer:** *The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987 and Environment Canterbury's Contaminated Land Information Management Strategy (ECan 2009).*

*The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the accuracy or completeness of this information. It is released only as a copy of Environment Canterbury's records and is not intended to provide a full, complete or totally accurate assessment of the site. It is provided on the basis that Environment Canterbury makes no warranty or representation regarding the reliability, accuracy or completeness of the information provided or the level of contamination (if any) at the relevant site or that the site is suitable or otherwise for any particular purpose. Environment Canterbury accepts no responsibility for any loss, cost, damage or expense any person may incur as a result of the use, reference to or reliance on the information contained in this report.*

*Any person receiving and using this information is bound by the provisions of the Privacy Act 1993.*

## **Appendix E**

### Integrated Transport Assessment





**novo group**  
Planning. Traffic. Development.

**Integrated Transport Assessment**  
**prepared for**

**SELWYN DISTRICT  
COUNCIL**

**Kirwee Reserve**

**August 2019**



**Integrated Transport Assessment**  
**prepared for**

**Selwyn District Council**

**Kirwee Reserve**

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W: [www.novogroup.co.nz](http://www.novogroup.co.nz)

---

Document Date:	20/08/2019
Document Version/Status:	Final
Project Reference:	003036
Project Manager:	Lisa Williams
Prepared by:	Lisa Williams, Transport Engineer and Planner
Reviewed by	Rhys Chesterman, Senior Traffic Engineer & Director

---

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## Appendices

Appendix 1 NZTA CAS Data

Appendix 2 Transport Compliance Assessment

## Introduction

1. Selwyn District Council has commissioned Novo Group to prepare an Integrated Transport Assessment (ITA) for the extension of the Kirwee Reserve.
2. This report provides an assessment of the transport aspects of the proposed development. It also describes the transport environment in the vicinity of the site, describes the transport related components of the proposal and key transport provisions in the District Plan. It has been prepared broadly in accordance with the Integrated Transportation Assessment Guidelines specified in New Zealand Transport Agency Research report 422, November 2010 and other relevant best practice guides.
3. It is proposed to develop and extend the Kirwee Reserve to the northwest creating a second cricket oval, and an additional junior field through re-alignment of the second senior field. Other Facilities include a pump track and other passive (as opposed to organised) recreational spaces including walking tracks where dogs are permitted. The extension will include provision for a total of 201 car parking spaces and a new vehicle entrance to Tramway Road. The proposed reserve layout is shown in Figure 1 below.



Figure 1: Proposed Reserve Layout



## Transport Environment

### Road Network

#### High Street

4. High Street is a local road with a 50km/h speed limit. High Street has an approximately 5.2m wide un-marked carriageway which provides for one traffic lane in each direction and has flush grass berms on both sides. A 1.4m wide sealed footpath is provided on the southern side of the carriageway.
5. The Mobile Road website estimates traffic volumes on High Street as approximately 282 vehicles per day, although this is likely to vary from day to day depending on activities at the A&P Grounds and Kirwee Domain.

#### Tramway Road

6. Tramway Road is a local road with a 50km/h speed limit<sup>1</sup> increasing to 100km/h 80m north of the intersection with High Street. Tramway Road has two marked traffic lanes and flush grass berms.
7. Opposite the proposed access, Tramway Road has a carriageway width that tapers from 6.2m through the rural area to 10.4m width at the 50km/h threshold treatment. The sealed width is approximately 8.9m opposite the proposed access.
8. The Mobile Road website estimates traffic volumes on High Street as approximately 249-278 vehicles per day.

#### Crash History

9. The NZ Transport Agency Crash Analyses System (CAS) has been reviewed to identify crashes that have been reported on High Street and Tramway Road between 2009-2019. One reported crash was identified as shown in **Figure 2** below.

---

<sup>1</sup> The speed limit was reduced from 70km/h to 50km/h through the amended speed limit bylaw as of 1<sup>st</sup> August 2019

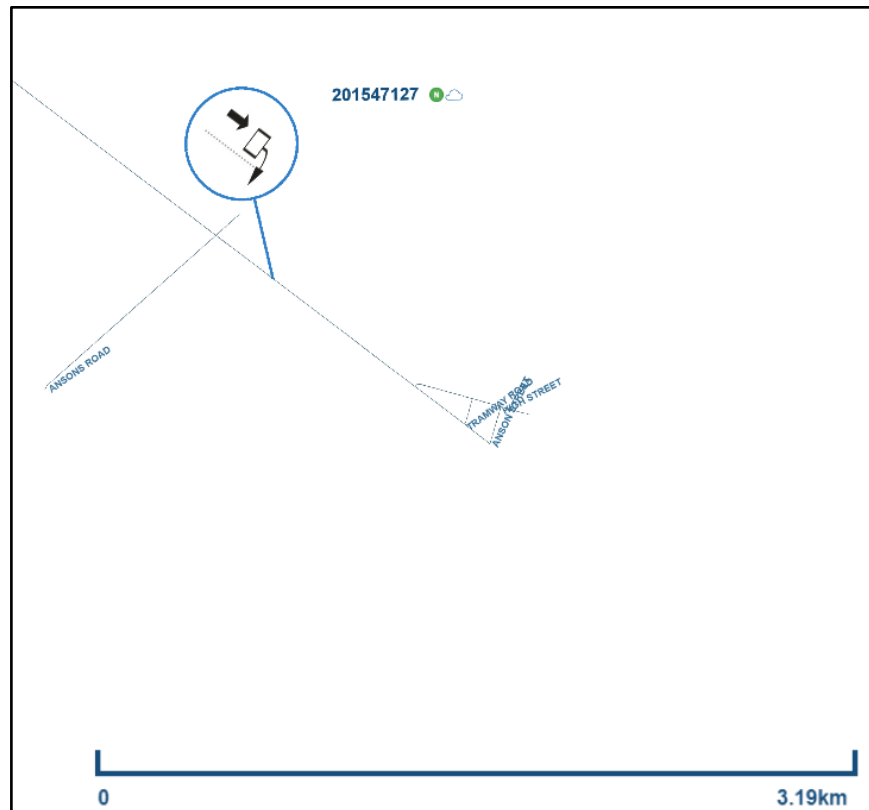


Figure 2: Collision Diagram NZTA CAS Database (reported crashes 2009-2019)

10. The reported crash did not result in injury. It involved a rear end collision with a right turning vehicle on Tramway Road 300m east of the intersection with Ansons Road. The crash summary report from the CAS database is included in **Appendix 1**.

## Alternative Transport Modes

### Passenger Transport

11. There are no public transport routes that service Kirwee.

### Cycling

12. There are no dedicated cycle routes or lanes in close proximity to the site.

## Existing Parking Demand

13. Spot counts of parking demand were undertaken on two Saturday mornings to determine the existing peak parking demand associated with the rugby games. These surveys were undertaken during junior games when two fields were occupied (two games) simultaneously. The spot count undertaken on 25 May 2019 also coincided with the Rugby club's annual Club-Day which represents one of the busiest days on the yearly rugby calendar. The parking demand is presented in **Table 1** below.



**Table 1: Existing Parking Demand (Rugby)**

Location	Supply	25 <sup>th</sup> May 2019 10am	25 <sup>th</sup> May 2019 11am	8 <sup>th</sup> June 2019 10am	8 <sup>th</sup> June 2019 10:30
West Carpark	60	25	41	19	28
Central Car park	30	27	26	30	26
East Car park	14	13	13	8	6
A&P Showgrounds	Grass	46	105	24	27
<b>Total</b>		<b>111</b>	<b>185</b>	<b>81</b>	<b>87</b>

14. There did not appear to be any on-street parking occurring in association with the above surveys i.e., no-one was observed walking to / from vehicles parked on-street. There were however two vehicles parked on High Street, however these appeared to be associated with adjoining residential properties.

## The Proposal

15. The existing Kirwee Reserve contains two senior rugby fields, one junior field (although additional games can be played on half senior fields), a cricket oval, bowling green, seven tennis / netball courts and passive recreation (play-grounds etc) space. There are currently three car parking areas accessed from High Street.
16. The proposal is to extend the reserve to the north-west providing an additional cricket oval, repositioning the second rugby field, and creating an additional junior field. The area also includes passive recreation / dog walking areas, pump track, additional amenities, play-grounds and recreational spaces.
17. It is proposed to reconfigure existing car parking spaces and extend these spaces to cater for up to 201 parking spaces (including 5 mobility spaces).
18. The car parks will be formed / sealed and drained and lit (for security). The provision of the car park will be staged (as facilities are provided and the club membership increases over time).
19. There are also other areas around the reserve that could also be opened up to provide temporary and informal grass parking for larger one-off events.
20. 10 cycle parks are to be provided in several locations to cater for any cycle parking demand.
21. An additional vehicle access is also proposed to Tramway Road as well as a separate pedestrian access from Tramway Road.

## Traffic Generation and Parking Demand

22. Traffic generation and parking demand of the various activities is estimated below from survey data (where available) as set out in **Table 2** below and otherwise from first principles.



**Table 2: Survey information from NZ Trips and Parking Database**

Facility surveyed	Site and survey info	Parking Demand	Trip Generation
Silverdale War Memorial Park, Rodney	3 Rugby Fields, 2 tennis courts, 1 hockey pitch, 3 bowling greens, Pony club. Sat in May	283 peak parking demand	318 trips
Ilam Fields, Christchurch	Wed 1200-1700 June. 4 Rugby fields and clubhouse	168 peak parking demand	102 vehicles per hour

### *Netball*

23. Netball games are not played on these courts therefore the peak use is associated with trainings. With two courts it is anticipated that there would be two teams training at any one time, with typically 12 squad / team members (24 total plus coaches). The traffic generation would therefore be low. Trainings typically occur on weekday evenings and will not change as a result of the proposed extension to the reserve.

### *Rugby*

24. The peak period associated with the Rugby fields typically occurs in the mornings when several junior rugby games are occurring at once, there would be up to three games occurring at any time (the third using half a senior field). The existing parking demand was surveyed and is set out in **Table 1** above.
25. As a proxy for estimating traffic generation, the Silverdale survey identified turn-over of around 1.12 trips per parked vehicle<sup>2</sup> (the Ilam Fields suggested only 0.6 trips per parked vehicle however it is not clear if this was associated with a training session or games). Applying the higher of these rates to the observed 87 parked vehicles suggests a traffic generation of 97 trips in the peak hour. This aligns well with the operational observations that vehicle parking duration is typically more than one hour. This accounts for warm-up times, game time, and after-game time lags. Furthermore, some cars will also be associated persons playing in or supporting more than one team etc.
26. The higher parking demand on club days (185 vehicles) therefore equates to around 207 vehicle movements in peak hour periods.
27. The opportunity to cater for three junior fields may not necessarily proportionately increase the traffic generation as it will depend on the number of games scheduled (which is not necessarily proportionate to the number of fields available as the games rotate between different club grounds). For example, consecutive games may alternate fields allowing teams to warm up on the field before the game instead of utilising space around the perimeter of otherwise occupied fields. At most, the existing traffic generation would be around 194 trips per hour on a typical Saturday. The higher 'club-day' peak is not anticipated to noticeably increase over the near future as this is likely proportionate to the

<sup>2</sup> Apply the traffic generation to parking demand as a ratio (i.e., 318 trips / 283 space demand = 1.12 trips per vehicle in the peak hour).





size of the club rather than the number of sports fields. A 50% increase has however been conservatively applied to allow for any additional games i.e., 311 trips per hour<sup>3</sup>.

28. Senior games typically have around 25 people (players and coaches, refs etc) per team. With two fields there could be up to four teams at any one time (100 people). With a conservative car occupancy of 2 people per car, this would equate to around 50 vehicles. Spectator volumes are more difficult to estimate, however it is unlikely that parking demand would be higher than that which occurred during the surveyed junior games. The games are also longer than one hour and typically have greater gaps between games that are scheduled on the same fields hence there is also unlikely to be the same level of traffic generation as occurs in association with the junior games.
29. Some of the visiting senior teams also charter a bus, reducing the traffic generation and parking demand from that assessed above. Where buses are expected a small number of car parks are coned off to provide for the bus parking.
30. Trainings occur on weekday evenings and are expected to be lower with typically only one team per field and no additional spectators (i.e., none other than parents driving children to the practise).

#### *Bowls*

31. A bowling green can typically be divided into parallel playing strips (called rinks). The size of the existing green suggests it could provide up to four rinks. Up to four people can play per team (eight people per game) and therefore eight players on four rinks suggests up to 32 players. There maybe some overlap associated with consecutive games and organisers etc. Games typically last more than an hour and most organisers would arrive early so the peak hour traffic volumes would still remain low at an estimated 20 vehicle movements (say 40 people and two person per car occupancy).

#### *Tennis*

32. Tennis games are sometimes held on Saturdays and also weekdays, along with trainings. If games were occurring on all six courts, this would suggest up to 24 players (assuming doubles). Including spectators and coaches, organisers and the like this could equate to around 40 people at any one time. Assuming a car occupancy of 2 people per vehicle this could equate to around 20 vehicles. The length of games is varied and as such the traffic generation is not likely to exceed 30 trips in any given hour. Tennis is also a summer sport only, so would not coincide with Netball or Rugby which are winter sports.

#### *Cricket*

33. Senior cricket matches typically have around 11 players (with only 1 or 2 reserves) and last for more than an hour. Junior grades have shorter games and may be less than one hour. Senior cricket games also attract some spectators, coaches and organisers therefore an estimated 50 people per game would generate 25 vehicles however these would not likely arrive and depart in the same hour. Junior games may generate around 30 players and coaches (with a similar number of parents watching) and turn over within an hour

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<sup>3</sup> It is noted that the club anticipates only a 22% increase in Junior membership over the next 5 years.



(estimated 60 trips). Cricket is also a summer sport only, so would not coincide with winter sporting codes.

#### Passive recreation

34. The dog park, pump track, playgrounds etc will likely generate some vehicle movements throughout the day with peak periods after school and work and on weekends. A small allowance for peak hour traffic is added for these uses as there is likely to also be a lot of overlap with visits to the site for organised sport (i.e., a parent walking the dog whilst a child has practise / warm up or a sibling using the pump track whilst another is playing etc). During the rugby parking spot counts approximately 4 people were observed walking dogs through the area, many of these appeared to be local (not having driven to the site). An allowance of 10 trips associated with passive recreation should be sufficient to include any additional traffic associated with the dog park and pump track. It is assumed that parking duration will exceed 1 hour.

#### Total

35. Rugby predominately operates over the winter months. Netball games are not played at the site. Cricket is played over the summer months. Bowls is predominantly over the summer months. Tennis is predominantly over summer months also. Accordingly, typical peak traffic generation and parking demand for each of the summer and winter sports as estimated above, is summarised in Tables 3 and 4 below:

**Table 3: Estimated Traffic Generation**

Sport	Existing Winter Weekend Peak	Future Winter Weekend Peak	Existing Summer Weekend Peak	Future Summer Weekend Peak
Rugby	97	207	-	-
Cricket	-	-	60	120
Tennis	-	-	40	40
Bowls	-	-	20	20
Passive (dog park, pump track etc)	5	10	5	10
<b>Total</b>	<b>102</b>	<b>217</b>	<b>125</b>	<b>190</b>

**Table 4: Estimated Peak Parking Demand**

Sport	Existing Winter Weekend Peak	Future Winter Weekend Peak	Existing Summer Weekend Peak	Future Summer Weekend Peak
Rugby	87	174	-	-
Cricket	-	-	30	60
Tennis	-	-	20	20
Bowls	-	-	20	20



<i>Passive (dog park, pump track etc)</i>	5	10	5	10
<b>Total</b>	<b>92</b>	<b>184</b>	<b>75</b>	<b>110</b>

## District Plan Assessment

36. Designations are not required to comply with the rules in the District Plan however the Transport Standards in Appendix E10 (Rural) and E13 (Township) have been considered for guidance. These are also incorporated into **Appendix 1**. The proposal is consistent with all District Plan standards except in respect of the access formation where an alternative layout has been proposed. In addition, cycle parking is also proposed.

## Assessment of Effects

37. The key transport related effects can be grouped into topics of parking, on-site layout and access, and the road network. The effects of each of these aspects are assessed below.

### Parking

38. The District Plan would require 185 car parking spaces<sup>4</sup> which is met and exceeded by the 201 space provision.
39. The parking demand has been estimated in Table 4 above as 184 spaces during the winter peak and 110 during the summer peak.
40. It follows that the proposed supply of 201 spaces on the site could meet all anticipated parking demand on a typical weekend. During club days there may be a higher demand and overflow areas are available around the site to cater for overflow parking during these infrequent occurrences.
41. Larger annual or one-off events may also occur on occasion which generate parking demand that is over and above typical use. For example, this could include tournaments or community events. This scale of activity could result in additional overflow parking demand however the quantum of additional parking demand is difficult to estimate. Noting these events would be infrequent the informal (grass) parking areas around the site can be used to cater for the additional demand. Large events would also be managed through TMP measures and/or parking marshals.
42. Kerb-side parking is undesirable in high speed rural areas, where the associated vehicle manoeuvring and pedestrian movements can create a safety concern. In this situation, on site observations revealed that most vehicles were observed to be approaching the site via Courtney Road and West Coast Road. Noting this and that the clubrooms are closest to High Street, any overflow on-street parking demand is likely to occur on High Street first (which has a 50km/h speed limit). Should large events occur this could be managed by use

<sup>4</sup> Based on approx. 4.3ha of playing fields requiring 65 spaces and approx. 1200m<sup>2</sup> GFA of recreational buildings requiring 120 spaces.



of event signage or temporary speed limits to ensure drivers are fully aware of formal and informal parking available on the site.

43. Such options are best considered on a case by case basis by the tournament / event managers as part of the planning phase with the appropriate action included in the running of the event.
44. The site is located in the Kirwee Township and may generate some cycle parking demand from residents. The small size of the township and the wider rural catchment however suggests that such demand is likely to be limited. Accordingly, the 10 cycle stands proposed should be more than sufficient to cater for the likely demand. There is also ample space around the site to provide additional cycle parks in the future should regular demand exceed supply.

## **On-Site Layout**

45. The parking areas proposed have a conventional layout which affords ease of manoeuvring to and from each of the parking areas. The accesses provide for two-way flow of vehicles in opposing directions (passing) and there are ample opportunities for turning should a car park area be fully occupied.
46. All of the accesses provide large queuing spaces which can accommodate vehicles well clear of the road.
47. The proposed main car park has a long straight aisle and speed platforms could be considered to ensure slow speeds are maintained to appropriate levels.
48. The parking areas are dispersed around the main entrances to the site to enable people to park nearest to the facilities they are visiting.
49. The Master Plan includes a variety of formed paths linking the proposed car park to the various existing and proposed, fields and buildings and the existing car parking areas. There is also a path provided to the Hoskyns Road connection and an existing grass walkway along the main entrance from High Street. The paths provided therefore accommodate good pedestrian circulation and connections through and within the site. The casual use of mown grass areas is also a key characteristic of parks and will complement the formal paths provided.

## **Access**

50. The site will continue to use the existing accesses to High Street which are well formed and cater for two-way traffic. High Street has a 50km/h speed limit and there is good visibility in both directions from these accesses.
51. A new access is proposed from Tramway Road. Tramway Road has a 100km/h speed limit at the application site, reducing to 50km/h south of the site where road markings and landscaping signal the change as shown in Figure 3 below. It is noted that the speed limit was reduced from 70km/h to 50km/h through the amended speed limit bylaw as of 1<sup>st</sup> August 2019 (after the photo below was taken).



**Figure 3: Photograph of Tramway Road looking south towards the existing threshold treatment.**

52. The District Plan would typically refer to Diagram E10.D for access to non-residential activities in a rural environment. This diagram provides acceleration and deceleration lanes for vehicles entering and exiting a site. Tramway Road has low traffic volumes and the access is in close proximity to the 50km/h speed limit sign. Furthermore the Tramway Road access is considered to likely receive the least amount of use with most vehicles arriving via High Street. As such alternative designs have been considered to cater for the site's specific characteristics. Noting that it may be desirable to move the 50km/h speed limit further north of the site access in the future and to be consistent with the existing road environment it is recommended that existing threshold treatment be extended 50m north as shown in Figure 4 below.



**Figure 4: Proposed road layout extension to the north of the site access.**



53. The existing threshold treatment includes a 1.6m sealed shoulder, 3.0m traffic lanes and a 1.2m flush median. The combined median, lane and shoulder width of 5.8m is sufficient to allow through traffic to pass around any vehicles waiting to turn right into the site. Noting the low traffic volumes, there is unlikely to be any delay for right turn vehicles and as such this is considered to be sufficient.
54. The extension of the threshold treatment achieves the intention of the access diagrams in providing space for through vehicles to pass around vehicles slowing to enter the site. It would also avoid additional roadway reconstruction or remarking if the speed limit was moved in the future.
55. If any additional road-side planting is extended north, then it is recommended that this be low height species that do not block visibility from either the site access or that of the property on the opposite side of the road.
56. The access should include a 15m turning radius where it joins to the sealed edge of the road.

## Road Network

57. The site is located on the northern side of the Kirwee Township with access to two local roads. These roads connect to West Coast Road which forms part of the State Highway network and to Courtenay Road which is a collector road. This is consistent with the intended roles and functions of roads within the District Plan road hierarchy with local roads primarily providing for property access. Collector roads provide connections to the wider road network and the State Highway provides stronger links to major centres. From a traffic movement and function perspective, the site is therefore considered to be appropriately located for the intended use.
58. Noting both the existing traffic volumes and estimated traffic generation associated with the site, the frontage roads can readily accommodate these volumes.
59. Observations during the Saturday morning surveys suggested that vehicles could exit the site with little or no delay. During a 20 minute observation period there was only one vehicle on Tramway Road. This highlights the low overall volumes which in turn confirms the low overall delay.
60. There are several options for trip arrival and departure routes depending on the direction of travel. This will split traffic volumes across the nearby intersections and avoid significant delays at any one intersection.
61. Overall, both of the frontage roads and the wider road network are considered to have adequate physical capacity to cater for the anticipated increase in traffic generation.

## Summary

62. The proposed supply of 201 car parking spaces on the site could meet all anticipated parking demand on a typical weekend. During club days and or larger annual or one-off





events there are informal (grass) areas around the reserve that could also be opened up to provide temporary parking.

63. Such options are best considered on a case by case basis by the tournament / event managers as part of the planning phase with the appropriate action included in the running of the event.
64. The proposed access location and design is appropriate and it is recommended that the existing road threshold treatment markings be extended approximately 50m to the north to better facilitate access to the site (and be consistent with any future relocation of the 50km/h speed limit).
65. The site is well located within the road network and the anticipated traffic generation can be accommodated within the existing physical capacity of the road network.



## **Appendix 1**

### **NZTA CAS Data**



## **Appendix 2**

### **Transport Compliance Assessment**



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)		COMMENT
It is noted that the Transport Rules of the District Plan do not apply to Designations however the Transport standards in Appendices 13 (Township Volume) and 10 (Rural Volume) have been considered below as a guide.		
<b>E10.1.PARKING REQUIREMENTS</b>		
E10.1.1.1 Any on-site car parking or loading space located between the road frontage and the main entrance of any educational facility or any activity involving the retailing of goods and services to the public shall not have a metalled surface.		N/A
Notes: (a) The reason for Rule E10.1.1.1 is to avoid the potential for stones to “fly up” from the tyres of vehicles, which may create a danger to school children and the public in general. (b) Table E10.1 below provides a guide for the marking out of car parking spaces in the case of the developer or landowner wishing to provide a parking surface which is formed and sealed. (c) The discharge of storm water from a large sealed area may require a discharge consent from Environment Canterbury.		
E10.1.2.1 Any area required for on-site parking or loading, other than for a residential activity, shall be available at all times for staff and visitors during the hours of operation of the activity and shall not be diminished by any subsequent erection of any structure, storage of goods, or any other use.		Complies
E10.1.2.2 Garageable parking spaces for any residential activity shall have the following minimum internal dimensions:		N/A
E10.1.3.2 The minimum width of the entrance to a single garage shall be 2.4 metres.		N/A
E10.1.3.3 Any other parking space for any residential activity shall have the following minimum dimensions:		N/A
E10.1.4.1 The gradient of any on-site parking or loading area for any non-residential activity, shall be no more than: (a) At 90° to the angle of parking - 1:16; or (b) Parallel to the angle of parking - 1:20		Will comply
E10.1.5.1 The manoeuvring area to and from any parking space shall be designed to accommodate at least the design motor car as set out in the Council's Engineering Code of Practice.		Complies
E10.1.5.2 The manoeuvring area to and from any loading space shall be designed to accommodate at least the design truck as set out in the Council's Engineering Code of Practice.		N/A



## APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)

## COMMENT

E10.1.5.3 No loading space shall obstruct any on-site car parking space or any vehicle or pedestrian access.

N/A

E10.1.5.4 No vehicle shall be required to reverse out of any site onto a road.

No vehicles will reverse out of the site

## E10.2 ACCESSWAYS AND CROSSINGS

E10.2.1.1 The minimum requirements for any shared private vehicle accessway for a site(s) shall be in accordance with Table E10.2.

N/A the accesses are not shared with other sites.

2-3 Sites 4.5m legal width, 3.0m carriageway, turning areas and optional passing bay

E10.2.1.2 Where Table E10.2 requires turning areas, turning within the shared accessway may be facilitated through the use of a hammerhead arrangement. Note: refer to the Council's Code of Practice for the design standard required.

N/A

E10.2.2.1 No part of any vehicle crossing shall be located closer to the intersection of any road than the minimum distances specified in Table E10.3 except that where the boundaries of a site do not allow the provision of any vehicle crossing whatsoever in conformity with the above distances, a single vehicle crossing may be constructed in the position which most nearly complies with the provisions of Table E10.3. (the Road Hierarchy for the District is set out in Appendix 9).

The vehicle access on Tramway Road is more than 60m from the nearest intersection and the existing accesses to High Street are more than 10m from the nearest intersection.

Intersecting Road Type Distances in Metres					
Vehicle Crossing Joins to	Posted speed Km/hr	State Highway	Arterial	Collector	Local
State Highway	> 50	100	100	100	100
	≤50	30	30	30	30
Arterial	> 50	100	100	100	100
	≤50	30	30	30	30
Collector	> 50	75	75	60	60
	≤50	30	30	30	25
Local	> 50	75	75	60	60
	≤50	25	25	25	10

E10.2.2.2 No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line as measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.

There are no railway crossings within 30m of the site.



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)

COMMENT

E10.2.2.3 The distance between any vehicle crossing and road intersection shall be measured along the centre line of the frontage road: Noted

- (a) From the point where the centre lines of the two roads intersect;
- (b) To the point where the centre lines of the vehicle crossing and the frontage road intersect.

E10.2.2.4 Notwithstanding Rule E10.2.2.1 above, for any:

The site does not have a vehicle crossing to a State Highway or Arterial Road

- (a) service station; or
  - (b) truck stop; or
  - (c) any activity which generates more than 40 vehicle movements in any one day;
- No part of any vehicle crossing onto any State Highway road or arterial road shall be located closer than:
- (d) 60m to the departure side of any intersection; and/or
  - (e) 30m to the approach side of any intersection.

The distance shall be measured in accordance with Rule E10.2.2.3.

E10.2.3.1 Vehicle crossings onto roads must provide the required minimum sight distances in Table E10.4 and Diagram E10.A1.

Both High Street and Tramway Road are straight and flat with visibility achieved in all directions.

Posted (Legal) Speed Limit (km/h)	State Highway, Arterial and Collector roads Required Sight Distances (m)
50	113
60	140
70	170
80	203
90	240
100	282





APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)	COMMENT
E10.2.4.1 Vehicle access to any site from any road or service lane shall be by way of a vehicle crossing constructed at the owner's or the developer's expense.	Noted
E10.2.4.2 The maximum number of residential vehicle crossings shall not exceed 1 per road frontage.	N/A
<p>E10.2.4.3 Vehicle crossings to any site shall be constructed in accordance with:</p> <p>E10.2.4.3.1 Diagram E10.B1 if the vehicle crossing is to provide access to a property from a State Highway with less than 30 equivalent car movements per day; or</p> <p>E10.2.4.3.2 Diagram E10.B2 if the vehicle crossing is to provide access to a property from a State Highway with between 30 and 100 equivalent car movements per day; or</p> <p>E10.2.4.3.3 Diagram E10.C1 if the vehicle crossing is to provide access to a dwelling and is to a local road; or</p> <p>E10.2.4.4 Diagram E10.C2 if the vehicle crossing is to provide access to a dwelling and is to an arterial road or provides access to any activity and is to a collector road; or</p> <p>E10.2.4.5 Diagram E10.D if the vehicle crossing is to provide access to a commercial activity or is a heavy vehicle access, other than State Highways.</p>	The proposed access to Tramway Road is not constructed in accordance with Diagram E10.D as an alternative solution has been proposed.
E10.3 ROAD STANDARDS	
<p>E10.3.1.1</p> <p>Any new road shall be laid out and vested in the Council in accordance with the standards contained in Table E10.5.</p>	N/A
<p>E10.3.1.2</p> <p>For determining the carriageway width in Table E10.5, the minimum carriageway widths shall be measured from the edge of seal to edge of seal.</p> <p>Local Roads: 15-20m Road reserve width and 6.7-7m carriageway width</p>	N/A
<p>E10.3.1.3</p> <p>The carriageway of any new road laid out and vested in accordance with the above shall be formed and sealed.</p>	N/A
<p>E10.3.1.4</p> <p>Any cul-de-sac shall be constructed with a turning head of 26m diameter measured kerb face to kerb face.</p>	N/A



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)		COMMENT
E10.3.2 Road Intersection Spacing (all roads)		N/A no new intersections are proposed N/A
<b>E13.1.1 Parking Spaces to be Provided</b>		
E13.1.1.1 - For any new activity, or any increase in an existing activity not complying with Section 10 of the Act (Certain Existing Land Uses in Relation to Land Protected), provision shall be made for on-site vehicle parking, for use by staff and visitors, in accordance with Table E13.1(a), E13.1(b) and E13.1(c), and in compliance with the car park dimensions in Table E13.2 and Diagram E13.1.		<p>Sports grounds and playing fields: 15 spaces per hectare of playing fields;</p> <p>Places of Assembly and/or Recreational Activities: 10 spaces per 100m<sup>2</sup> public area or 1 space per 10 seats, whichever is greater</p> <p>Approx 4.3ha of playing fields = 65 spaces.</p> <p>Approx 1200m<sup>2</sup> GFA = 120 spaces</p> <p>201 spaces provided.</p>
E13.1.1.2 - If an activity is not listed in Table E13.1, the activity closest in parking demand to the new activity shall be used.		Noted
E13.1.1.3 - Where there are two or more similar activities in Table E13.1 and there is uncertainty over which rate is most applicable, the activity with the higher parking rate shall apply.		Noted
E13.1.1.4 - Where there are two or more different activities listed in Table E13.1 occurring on the site, the total requirement for the site shall be the sum of the parking requirements for each activity.		Noted
E13.1.1.5 - Where a parking requirement results in a fractional space, any fraction of one half or over shall be rounded up to the nearest whole number and any fraction under one half shall be disregarded except that there must be a minimum of one space for each activity.		Noted
E13.1.1.6 - Parking spaces for persons with impaired mobility shall be provided at the required rate (refer to Rules 5.5.1.5 and 17.5.1.4) and shall be included within the total requirement specified in Table E13.1.		1 space is required for up to 10 spaces and then 1 space per 50 car parks. Therefore 201 spaces requires 5 mobility spaces.
E13.1.1.7 - Where an application includes two or more activities, and the nature of activities is unknown, the activity with the highest parking rate shall apply.		Noted



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)	COMMENT
E13.1.1.8 - The parking requirement for Food and Beverage activities is based on PFA. Where PFA is not specified or is unknown, the parking requirement shall be calculated based on GFA.	Noted
<b>E13.1.2 Availability of Parking Spaces</b>	
E13.1.2.1 - Any area required for on-site parking or loading, other than for a residential activity, shall be available at all times for staff and visitors during the hours of operation of the activity and shall not be diminished by any subsequent erection of any structure, storage of goods, or any other use, except as required in the Rolleston Key Activity Centre in Rule E13.1.3.4 below.	Will be available
<b>E13.1.3 Parking Area Location</b>	
E13.1.3.1 - All parking required in Table E13.1 above and all loading (including unloading) areas shall be located on the same site as the activity for which the parking is required. This rule shall not apply to any required parking which complies with Rules E13.1.3.3 and E13.1.3.4 below.	Some parking is occurring on the adjacent reserve.
E13.1.3.2 - Any parking or loading area for any activity in a Business zone shall not have its access across land in any Living zone, except for any parking provided in Rolleston Reserve pursuant to Rule E13.1.3.4.	N/A
E13.1.3.3 - Within a Business 1, 2 or 2A Zone, parking required in table E13.1 above may be provided on a physically adjoining site, or on a site within 100m of the site on which the activity is undertaken, provided that it meets the conditions of E13.1.3.5 in either of these situations.	N/A
E13.1.3.4 - For Precinct 8 of the Rolleston Key Activity Centre, all car parking (required and/or provided) shall be provided in Precincts 1 and/or 6 in a public car park or public car parks, shall be available for general public use and shall meet conditions (c), (d) and (e) of Rule E13.1.3.5.	N/A
<p>E13.1.3.5</p> <p>(a) the parking shall be clearly associated with the activity by way of signage on both sites, or alternatively be available for general public use, and</p> <p>(b) the parking is located on the same side of any road as the activity, and</p> <p>(c) the most direct route provided or available for pedestrians from the parking area to the activity is not more than 200m and,</p> <p>(d) if disabled parking cannot be physically accommodated on the same site as the activity, shall be provided at the closest point to the entrance to the activity with which they are associated and, the most direct route from the disabled parking spaces to the activity shall be accessible for mobility impaired persons and</p> <p>(e) Parking on a separate site by an activity must be protected for the use of that activity (and any future activity on the activity site), or for the use of the general public, by an appropriate legal instrument. A copy of the appropriate legal</p>	N/A



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)		COMMENT
instrument shall be provided to Selwyn District Council for their records. Note: Precinct 8 parking shall be protected for the use of the general public only.		
<b>E13.1.4 Cycle Parking</b>		
E13.1.4.1 - Any activity, other than residential activities, temporary activities, activities listed in E13.1.4.2 and activities permitted under Part C, Living Zone Rules - Activities 10.9.1. is to provide cycle parking at a minimum of 2 spaces and then at a rate of 1 cycle space for every 5 car parking spaces required, to a maximum of 10 cycle spaces.		N/A
E13.1.4.2 - Any Place of assembly, recreation or education activity shall provide cycle parking at a minimum of 2 spaces and then at a rate of 1 cycle space for every 5 car parking spaces required.		44 cycle parks suggested (in an urban area) – 10 proposed
E13.1.4.3 - All cycle parking required by rule E13.1.4.1 or E13.1.4.2 shall be provided on the same site as the activity and located as close as practicable to the building main entrance and shall be clearly visible to cyclists entering the site, be well lit and secure. The type of stand must comply with the Engineering Code of Practice requirements for cycle parking rack systems		Noted
<b>E13.1.5 Loading and Manoeuvring</b>		
E13.1.5.1 - All loading and manoeuvring shall be carried out on-site. The manoeuvring area to and from the loading zone shall be designed to accommodate at least the design truck as detailed in the Council's Engineering Code of Practice.		Will occur on-site
E13.1.5.2- No loading zone shall obstruct any on-site car parking space or any vehicle or pedestrian access. For clarification any loading spaces shall be in addition to parking spaces required in Table E13.1.		Noted
<b>E13.1.6 Parking Spaces for Residential Activities</b>		
E13.1.6.1 - Garageable parking spaces for any residential activity in any zone shall have the following minimum internal dimensions: Single 3.1m wide & 5.5m deep Double 5.6m wide & 5.5m deep		N/A
E13.1.6.2 - The minimum width of the entrance to a single garage shall be 2.4 metres.		N/A
E13.1.6.3 - Any other parking space for any residential activity shall have the following minimum dimensions: Width 2.5m Depth 5m		N/A



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)	COMMENT
E13.1.6.4 - The manoeuvring area to and from the site access to the parking space shall be designed to accommodate at least the design motor car as set out in the Council's Engineering Code of Practice.	N/A
E13.1.6.5 - Where two parking spaces are required by for any residential activity (other than visitor spaces), they may be provided in tandem where onsite manoeuvring is provided.	N/A
<b>E13.1.7 Gradient of Parking Areas</b>	
E13.1.7.1 - The gradient for any on-site parking surface for any non-residential activity, shall be no more than: (a) At 90° to the angle of parking - 1:16 (b) Parallel to the angle of parking - 1:20	Will comply
<b>E13.1.8 Maximum Gradients for Access to any Parking Space(s)</b>	
E13.1.8.1 - The maximum average gradient of any access shall be 1 in 6.	Will comply
E13.1.8.2 - The maximum gradient shall be 1 in 4 on any straight section and 1 in 6 around curves, the gradient being measured on the inside line of the curve.	Will comply
E13.1.8.3 - The maximum change in gradient without a transition shall be no greater than 8°.	Will comply
<b>E13.1.9 On-site Manoeuvring</b>	
E13.1.9.1 - On-site manoeuvring shall be provided to ensure that no vehicle is required to reverse either onto or off a site where: (a) Any site has access to a State Highway or arterial road (refer Appendix 7); or (b) Any site has access to a collector road and required 3 or more parking spaces; or (c) Any site containing a non-residential activity having access to a collector road; or (d) Any access to a site that serves 6 or more parking spaces; or (e) Any residential activity providing tandem parking.	All vehicles can drive forwards off the site.
E13.1.9.2 Parking spaces shall be located so as to ensure that no vehicle is required to carry out any reverse manoeuvring when entering any required parking space.	All car parks are located to enable a vehicle to drive forwards into the park.
E13.1.9.3 Vehicles shall not be required to undertake more than one reverse manoeuvre when manoeuvring out of any required parking or loading space.	All car parks enable this



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)		COMMENT
<b>E13.1.10 Queuing Spaces</b>		
E13.1.10.1 - A queuing space shall be provided on-site for all vehicles entering or exiting a parking or loading area. The length of such queuing spaces shall be in accordance with Table E13.3 below. Where the parking area has more than one access the number of parking spaces may be apportioned between the accesses in accordance with their potential usage.		<p>Eastern car park (20 spaces) 5.5m – approx. 50m provided.</p> <p>Middle car parks (127 spaces) 20.5m – approx. 45m provided.</p> <p>New (63 carparks –i.e., assuming half use this access) 15.5m – approx. 20m provided.</p>
E13.1.10.2 - The queuing space length shall be measured from the road boundary to the nearest vehicle control point or point where conflict with vehicles or pedestrians on established pathways already on the site may arise.		Noted
<b>E13.1.11 Illumination</b>		
E13.1.11.1 - Any parking and loading areas, (excluding those for any residential activity), which are required at night shall be illuminated to a minimum maintained level of 2 lux, with high uniformity, during the hours of operation.		Lighting of key areas complies.
<b>E13.1.12 Surface of Parking and Loading Areas</b>		
E13.1.12.1 The surface of any parking, loading, and associated access areas (except parking areas for any residential activity) shall be formed, sealed and drained with the parking spaces permanently marked.		All on-site car parks will comply.
<b>E13.2.1 Private Vehicle Accessway</b>		
E13.2.1.1 - The minimum requirements for any private vehicle accessway for a site(s) shall be in accordance with Table E13.4.		5m carriageway width, turning and passing areas – all accesses comply
E13.2.1.2 - The minimum height clearance for any private vehicle access shall be 4.5m.		Noted
E13.2.1.3 - Where a private vehicle access serves more than two allotments, in any zone, it shall be formed and sealed.		N/A
E13.2.1.4 - Where turning areas are required in Table E13.4, this may be facilitated through the use of a hammerhead arrangement. Note: refer to the Council's Code of Practice for the design standard required.		N/A





APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)	COMMENT
E13.2.1.5 - The minimum width of an accessway serving a single site in the Living Zones shall be 3.5m.	N/A
<b>E13.2.2 Distances of Vehicle Crossings from Road Intersections</b>	
E13.2.2.1 - No part of any vehicle crossing shall be located closer to the intersection of any roads than the minimum distances specified in Table E13.5 except that where the boundaries of a site do not allow the provision of any vehicle crossing whatsoever in conformity with Table E13.5, a single vehicle crossing may be constructed in the position which most nearly complies. (Note that the Road Hierarchy for the District is set out in Appendix 7).	All accesses comply
E13.2.2.2 - In applying E13.2.2.1 the distances specified in Table E13.5 shall be measured along the road boundary parallel to the centre line of the roadway of the frontage road from the kerb line, or formed edge, of the intersecting road – refer to Diagram E13.5.	Noted
E13.2.2.3 - No part of any vehicle crossing shall be located closer than 30 metres to the intersection of any railway line measured from the nearest edge of the vehicle crossing to the limit line at the level rail crossing.	The access is not within 30m of a railway line
<b>E13.2.3 Sight Distances from Vehicle Crossings</b>	
E13.2.3.1 - Any access on any road shall have minimum unobstructed sight distances that comply with Tables E13.6 below and measured in accordance with Diagram E13.2.	Tramway Road and High Street are straight and flat affording complying visibility.
<b>E13.2.4 Vehicle Crossing Design and Siting</b>	
E13.2.4.1 - Vehicle access to any site from any road or service lane shall be by way of a vehicle crossing constructed at the owner's or developer's expense.	Noted
E13.2.4.2 - For all sites in a Living Zone there shall be a maximum of one vehicle crossing per site.	N/A
E13.2.4.3 - For sites in the Business 2A Zone with frontage to roads other than State Highway and Arterial roads, there shall be a maximum of two vehicle crossings per site except that: (a) There may be a maximum of three vehicle crossings per site where the road frontage is more than 100 metres in length.	N/A



APPENDIX E10 TRANSPORT (RURAL VOLUME) and APPENDIX E13 TRANSPORT (TOWNSHIP VOLUME)	COMMENT
<p>E13.2.4.4- For sites in all other Business zones (excluding B2A zone) there shall be a maximum of one vehicle crossing per site, except where:</p> <p>(a) the site has frontage to roads other than State Highway and Arterial roads, where there may be a maximum of two vehicle crossings per site if each crossing is a single exit or entry (one way flow), or</p> <p>(b) The site has a road frontage of more than 100m in length where there may be a maximum of three vehicle crossings per site.</p>	<p>The site has 100m of road frontage and three vehicle crossings.</p>
<p>E13.2.4.5 - The maximum spacing and width any vehicle crossing shall comply with Table E13.7.</p>	<p>Crossings are less than 1m or more than 7m apart (compliant)</p> <p>Crossing widths are between 4m and 7m (compliant)</p>
<p>E13.2.4.6 - For the purposes of measuring the distance between crossings specified in table E13.7, the distance between two vehicle crossings shall be measured along the edge of the carriageway parallel to the road centre line, between the full height kerb or edge of crossing seal and the full height kerb or seal edge of the adjoining crossing.</p>	<p>Noted</p>
<p>E13.2.4.7 - For the purposes of measuring crossing widths as specified in Table E13.7, the width of a vehicle crossing shall be measured at the property boundary (parallel with the road reserve).</p>	<p>Noted</p>
<p>E13.2.4.8 - Notwithstanding E13.2.4.5 above, for vehicle crossings onto a State Highway or Arterial road with a posted speed limit of 70km/h or greater the distances between crossings shall be taken from Diagram E13.4.</p>	<p>Access is not to a State Highway or Arterial Road</p>
<b>E13.2.5 Standard of Vehicle Crossings</b>	
<p>E13.2.5.1 - Vehicle crossings shall be constructed to the following minimum standards:</p> <p>(a) Standard vehicle crossings shall be provided to sites capable of containing no more than 6 dwellings or which generate no more than 100 vehicle movements per day.</p> <p>(b) Heavy-duty vehicle crossings shall be provided for all other sites.</p>	<p>Noted</p>
<b>E13.3 Road Standards</b>	
<p>E13.3.1 New Road ...</p>	<p>N/A no new roads are proposed.</p>
<p>E13.3.2 Road Intersection Spacing (all roads)</p>	<p>N/A no intersections are proposed</p>

## **Appendix F**

### Noise Assessment



Report Number: AC19149 – 02 – R2

## Kirwee Recreation Reserve, Kirwee

### Assessment of Environmental Noise Effects




*Prepared for:*  
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*Issued:*  
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## Revision History

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AC19149 – 02 – R1	Revision 1	8 August 2019
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## Document Acceptance

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## 1.0 BACKGROUND

Acoustic Engineering Services (AES) has been engaged by the Selwyn District Council (SDC) to provide acoustic engineering advice in relation to the proposed extension of the Kirwee Recreation Reserve as part of the Notice of Requirement to re-designate the site.

The purpose of this precinct is to provide a focal point for recreation within Kirwee, with outdoor sports and sports fields.

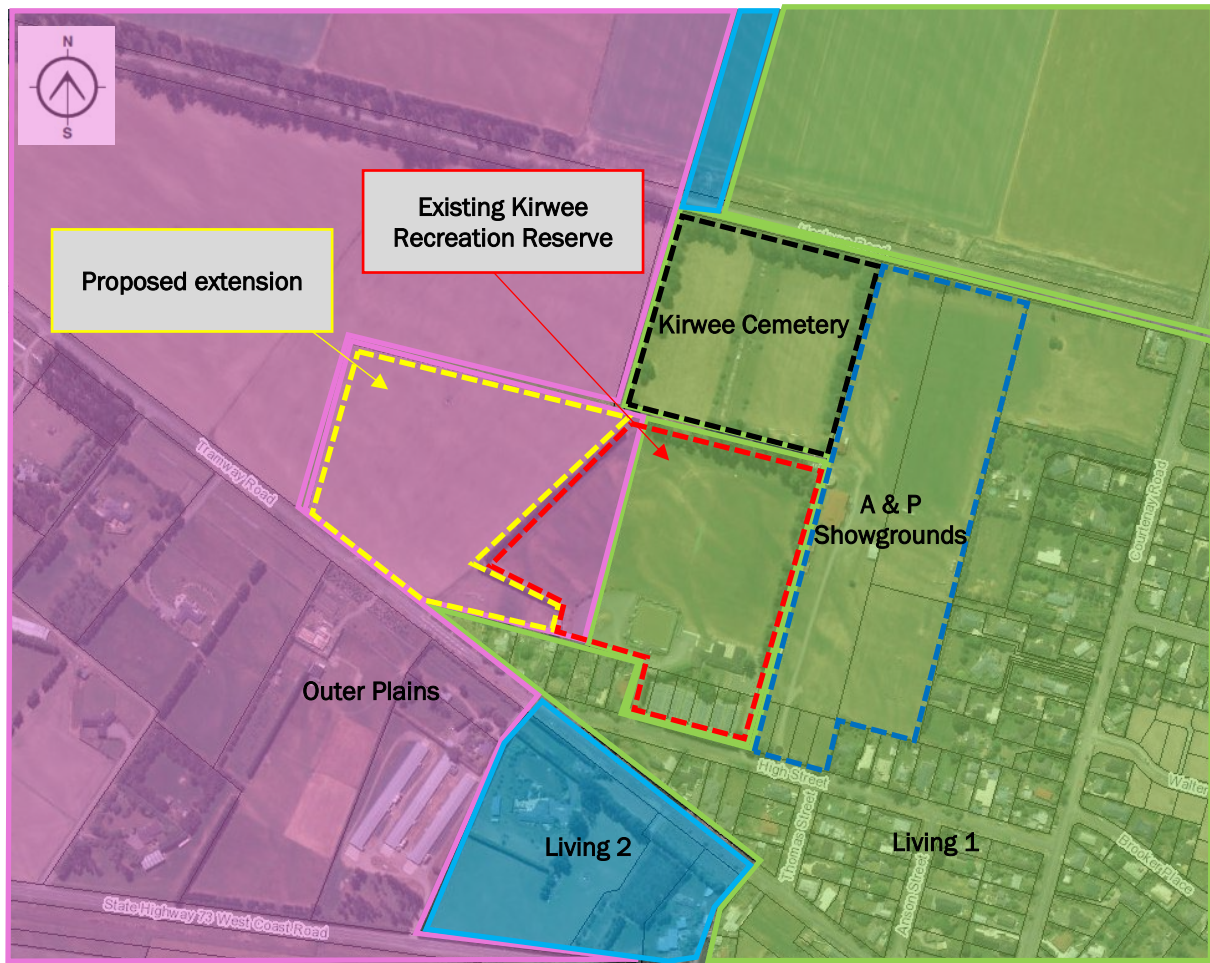
We have based our analysis on the following:

- Email correspondence with Derek Hayes titled *Kirwee Reserve NOR Master Plan comments*, received on the 19<sup>th</sup> of June 2019.
- Master plan titled *Kirwee Recreation Reserve*, Revision C, dated the 26<sup>th</sup> of June 2019, and received on the 2<sup>nd</sup> of September 2019.
- Traffic assessment report titled *Integrated Transport Assessment prepared for Selwyn District Council, Kirwee Reserve*, as prepared by Novo Group Ltd, and dated the 20<sup>th</sup> of August 2019.

### 1.1 Site and surrounding area

The Kirwee Recreation Reserve site is located to the northwest of the town centre. The site is located in the Living 1 (L1) and Outer Plains (OP) zones as defined by Selwyn District Council, as are the adjoining sites with the sites further to the north and south zoned in Living 2 (L2), as shown in figure 1.1 below.

The Living 1 zoned site to the north is Kirwee Cemetery, with the site to the east used as A & P Showgrounds, as shown in figure 1.1 below.



**Figure 1.1 – Location of the Kirwee Recreation Reserve site**

Currently the site caters for the following facilities, as shown in figure 1.2 below:

- Rugby / Cricket fields
- Tennis / Netball courts
- Bowling Green
- Playground
- Carparks
- Club / Pavilion building including changing rooms, toilet facilities, indoor and outdoor spaces for spectators, and facilities for the post-match gatherings and smaller functions

Based on correspondence and observations of other similar facilities in Canterbury, we expect that the outdoor sports facilities (including the rugby fields, cricket fields, tennis / netball courts and bowling green) would generally be used for senior and junior competitions on the weekends between 0730 and 2000 hours and for training on weekdays from 1530 to 2100 hours.

The sports on site operate seasonally, with rugby and netball in winter, and cricket, tennis and bowls in summer.

Based on correspondence, we understand that the main netball competition which occurs on Saturdays is undertaken in Lincoln or Darfield, and this is unlikely to change. Therefore, the netball courts on this site will be largely used for training purposes.

Two vehicle exit / entrance points are off High Street. Carparks are available at adjacent A & P Showgrounds during events when there is a overflow demand.



Figure 1.2 – Existing site layout

## 1.2 Proposed extension

Based on correspondence, we understand that some land to the west has been purchased for an extension to the existing reserve, as shown in yellow in figure 1.1 above.

The proposed site layout is shown in figure 1.3 below, including the existing facilities outlined above and the following additional features:

- No.2 Senior Rugby Field (existing field to be realigned);
- Junior Field (at the location of the existing No.2 Senior Rugby Field);
- No.1 Cricket Oval and Open Space / Dog Exercise Area;



- A Pump Track for children only;
- Proposed Basketball half court, Intermediate play area including flying fox, Junior and Senior play area and new carparks.

We expect that the operating hours of the outdoor sports facilities (including the rugby fields, cricket fields, tennis / netball courts and bowling green) with seasonal sports would be the same as for the existing activities.

The existing two vehicle exit / entrance points off High Street are to be retained, with a proposed new vehicle exit / entrance off Tramway Road.

Based on the traffic assessment report, we understand that there will be 201 carparks on the site after the extension, which will meet the parking demand of 184 spaces during the winter peak and 110 spaces during the summer peak.



Figure 1.3 – Proposed site layout

## 2.0 ACOUSTIC CRITERIA

The Resource Management Act requires consideration of the significance of any adverse effects associated with the proposal. Guidance as to the significance of any adverse noise effects may be obtained from several sources.

### 2.1 District Plan noise standards

As described in section 1.1 above, the site and surrounding area are comprised of a mixture of living and rural zones.

The noise standards which therefore apply to the portion of the site zoned Living are described in the Selwyn District Plan – *Township Volume – Rules and Definitions – C10 Activities*; and are as follows:

*10.6.1 Any activity which is not a residential activity, spiritual activity or educational activity, shall be a permitted activity if the following noise limits are not exceeded within the time frames stated.*

7.30am – 8.00pm      50 dBA  $L_{10}$  / 85 dBA  $L_{max}$

8.00pm – 7.30am      35 dBA  $L_{10}$  / 70 dBA  $L_{max}$

**Note:** Sound levels shall be assessed at any point beyond the boundary of the site from which the source of noise is situated.

The noise standards which apply to the portion of the site zoned Rural (Outer Plains) are described in the Selwyn District Plan – *Rural Volume – Rules and Definitions – C9 Activities*; and are as follows:

*9.16.1 ...any activity shall be conducted so as to comply with the noise limits and within the time frames stated in the following tables in order to be a permitted activity:*

*Table C9.2 – Maximum noise limits at any Living Zone boundary*

7.30am – 8.00pm      55 dBA  $L_{10}$  / 85 dBA  $L_{max}$

8.01pm – 7.29am      40 dBA  $L_{10}$  / 70 dBA  $L_{max}$

*Table C9.3 – Noise limits assessed at the notional boundary of any dwelling, rest home, hospital, or classroom in any educational facility except where that dwelling, rest home, hospital or classroom is located within a Living zone*

7.30am – 8.00pm      60 dBA  $L_{10}$  / 85 dBA  $L_{max}$

8.01pm – 7.29am      45 dBA  $L_{10}$  / 70 dBA  $L_{max}$

### 2.2 Existing noise environment

Aaron Zhao of AES visited the site between 1430 and 1545 hours on the 15<sup>th</sup> of June 2019 to observe the existing ambient noise environment. The results of this monitoring, along with notable noise sources observed, are presented in the following sections. We note that there was a rugby game underway on site during the noise measurements. However, the noise from the rugby game was inaudible at the measurement locations.

During our visit on a Saturday afternoon, noise source audible in the area included:

- Traffic on the adjacent road network

- Birds, wind in trees, and other noise associated with the natural environment

Traffic from State Highway 73 was audible in the area. Noise levels in the order of 46 dB  $L_{Aeq}$  were measured at the residential sites along High Street with no vehicles travelling on High Street.

### 2.3 New Zealand Standard 6802

NZS 6802:2008 *Acoustics – Environmental noise* outlines a guideline daytime limit of 55 dB  $L_{Aeq}$  (15 minute) (approximately 57 dB  $L_{A10}$ ) and a night-time noise limit of 45 dB  $L_{Aeq}$  (15 minute) (approximately 47 dB  $L_{A10}$ ) for “the reasonable protection of health and amenity associated with the use of land for residential purposes”. A night-time noise limit of 75 dB  $L_{AFmax}$  is outlined in the Standard with no  $L_{AFmax}$  limit during the daytime period.

We note that the Standard provides guidelines in section 8.3 regarding ‘daytime’ and ‘night-time’ for use in situations where these are not specified. The timeframe recommended is 0700 to 2200 hours daytime, and 2200 hours to 0700 hours the following day for night-time.

The Standard also describes how a 3 dB adjustment may be applied to sound received for less than 50 % of the daytime period, and a 5 dB adjustment may be applied to sound received for less than 30 % of the daytime period.

### 2.4 World Health Organisation

*Guidelines for Community Noise*<sup>1</sup>, a document produced by the World Health Organisation based on extensive international research recommends a guideline limit of 55 dB  $L_{Aeq}$  (16 hours) (approximately 57 dB  $L_{A10}$ ) to ensure few people are seriously annoyed in residential situations. A guideline limit of 50 dB  $L_{Aeq}$  (approximately 52 dB  $L_{A10}$ ) is recommended to prevent moderate annoyance. A guideline night time limit of 45 dB  $L_{Aeq}$  (approximately 47 dB  $L_{A10}$ ) is recommended to allow occupants to sleep with windows open.

### 2.5 Other District Plan noise limits

We are familiar with existing noise rules for many other District Plans throughout New Zealand, and consider these to provide some context.

In particular, the specified hours for the daytime and night-time periods vary considerably between districts, with some also providing an ‘evening’ period. However, the period between 0700 and 2200 hours is most commonly used to define daytime, and 2200 hours to 0700 hours for night time.

Therefore, the current Selwyn District Plan noise rules which apply at the Living zone are more restrictive in terms of the hours assigned to the day, being 0730 to 2000 hours, only a 12 and a half hour period, whereas most District Plans, NZS 6802 and the WHO anticipate or provide for 15 hours of daytime.

We also note that it is more common in other District Plans to utilise the  $L_{eq}$  descriptor for intrusive or continuous noise.

### 2.6 National Planning Standards

*New Zealand National Planning Standards* (2019) is a document which seeks to standardise aspects of regional and district plans, and other documents required under the Resource Management Act. Noise and vibration metrics are specifically discussed, with all District or Resource Management Plans are required (when going through an update) to adopt various stated metrics.

Section 15 *Noise and Vibration Metrics Standard* in the National Planning Standards outlines the noise and vibration standards required to be referenced in District and Resource Management Plans. The National

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<sup>1</sup> Edited by Berglund, B *et al.* *Guidelines for community noise*. World Health Organization 1999.

Planning Standard references New Zealand Standard NZS 6802:2008 *Acoustics – Environmental Noise* which uses the  $L_{eq}$  not  $L_{10}$  noise descriptor.

## 2.7 Discussion regarding appropriate noise levels

In general, where noise levels comply with the District Plan noise limits at neighbouring residential sites we would consider the effects to be acceptable; however, we note the following:

- The  $L_{10}$  descriptor referred to in the Selwyn District Plan is the noise level that is exceeded 10 % of the time, and therefore is directly related to the time period selected, the length of time that the noise source is on the site and the noise level they generate. This descriptor does not always well represent noise effects and is very difficult to calculate for intermittent noise sources, and hence is no longer used in the more recent standards.
- The noise limits within the Selwyn District Plan for activities which occur in Living 1 zoned site apply at any point beyond the noise generating site. For noise from vehicles the noise source is passing directly over the boundary. There will therefore be elevated noise levels on the High Street boundaries where there are access points to the site, regardless of the number of vehicle movements. It is more common to assess noise levels at the receiving site.
- The current Selwyn District Plan noise rules which apply at the living and rural zones are restrictive in terms of the hours assigned to the day, being 0730 to 2000 hours, only a 12 and a half hour period, whereas most District Plans, NZS 6802 and the WHO anticipate or provide for 15 hours of daytime.
- The adjacent A & P Showgrounds to the southeast and the Kirwee Cemetery to the northeast are zoned Living 1; however, we would not consider them to be noise sensitive. In addition, some existing carparks for the Kirwee Recreation Reserve are located in the adjacent A & P Showgrounds.

Based on the above, we consider noise at the following levels (measured and assessed in accordance with NZS 6801:2008 and NZS 6802:2008) when received at the boundary of the surrounding Living 1 zoned sites for residential purposes and at the notional boundary of the dwellings on the surrounding sites zoned in Outer Plains, will have a minimal adverse effect:

0700 to 2200 hours	50 dB $L_{Aeq}$
2200 to 0700 hours	40 dB $L_{Aeq}$ / 70 dB $L_{AFmax}$



### 3.0 NOISE GENERATED BY THE ACTIVITY

Noise sources which may be associated with the use of the Kirwee Recreation Reserve are expected to be:

#### Noise from the existing activities

- Vehicles travelling about and parking on the site (engine noise, exhaust noise, road/tyre noise, reversing beepers and door slams)
- Seasonal sporting activities such as Rugby, Netball, Tennis, Bowling, Cricket and the like
- Spectators, referee whistles associated with existing sporting events
- Children playing in the existing playground
- Post-match gatherings or other events (for example, fund-raising) which may occur from time to time in the pavilion / clubrooms

#### Noise from the proposed activities

- Vehicles travelling about and parking on the site (engine noise, exhaust noise, road/tyre noise, reversing beepers and door slams)
- Seasonal sporting events such as Rugby and Cricket on the proposed fields
- Basketball half court
- Children playing in the proposed Intermediate play area including flying fox, Junior and Senior play area
- Pump Track
- Dogs barking in the Open Space / Dog Exercise Area

As discussed in section 1.2 above, the sports activities between 0700 and 2200 hours in the recreation reserve vary considerably during the winter and summer periods. Therefore, the expected noise levels and any resulting adverse effects from sports between 0700 and 2200 hours have been considered for both winter and summer activities. With regard to cumulative noise, we expect that the peak periods of traffic noise and sport noise from the site will not occur concurrently and so the noise levels outlined below represent the worst-case levels expected at any given time.

### 3.1 Site mitigation

We understand that there is an existing 1.8 metre high acoustic fence along the site boundary between the drive way to the west of tennis courts and the adjacent residential sites, as shown in blue in figure 3.1 below. A 2.0 metre high acoustic fence is proposed along the south site boundary between the carpark area and adjacent residential site boundaries, as shown in red in figure 3.1 below.

Acoustic fencing should meet the following minimum standards:

- Height – 2.0 metres
- Surface mass – at least 10 kg/m<sup>2</sup>
- The fence must be continuous and maintained with no gaps or cracks. For timber fences, this will require palings to be well overlapped (25 mm minimum) or a “board and batten” system, and a



sleeper rail connecting the base of the palings to the ground. We also recommend a paling thickness of at least 25 mm to help resist warping.

- Suitable fencing materials which are commonly used include 25 mm timber, 9 mm fibre cement, 21 mm plywood, masonry and concrete.



Figure 3.1 – Existing and recommended acoustic fence locations

### 3.2 Noise from activities between 0700 and 2200 hours

SoundPlan computational noise modelling based on ISO 9613 *Acoustics – Attenuation of sound outdoors – Part 2: General method of calculation* has been used to calculate the propagation of noise from the site, taking into account the topography of the area, and sound power levels for each of the noise sources.

#### 3.2.1 Peak activities in winter

Based on correspondence, we understand that rugby and netball activities only operate over the winter months.

In order to determine the potential noise generation from these types of activities, Aaron Zhao of AES visited the existing site on the 15<sup>th</sup> of June 2019. Noise measurements were undertaken at several locations around the No. 1 Senior Rugby court during a rugby match with the following level of activity:

- 30 players playing rugby;
- Approximately 60 spectators, officials and club volunteers at the sidelines of the field;
- At most, two players and two coaches were talking in raised voices calling commands to the players;
- There was sporadic whistle blowing for tries, penalties, fouls, half time, and the like;

- People were observed talking with a normal voice effort walking to or from the sports fields;

This resulted in the following measured noise levels:

- Noise levels of 58 – 66 dB  $L_{Aeq}$  were measured at approximately 9 metres from the field
- Noise levels of 50 – 52 dB  $L_{Aeq}$  were measured at approximately 35 metres from the field

We have considered a peak operating scenario based on a busy Saturday morning for events (with netball training) or Thursday evening for training with the following activities (and associated noise sources) occurring simultaneously within the reserve:

#### Existing activities

- Senior Rugby – No.1 Senior Rugby field in use (approximately 40 players plus up to 60 spectators, officials and club volunteers, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)
- Junior Rugby – two fields in use (approximately 40 players plus up to 60 spectators, officials and club volunteers for each field, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)
- Netball – two courts in use (approximately 12 players plus up to 12 spectators and coaches for each court, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)
- Playground – 6 children with half speaking in raised voices in the existing playground

#### Proposed activities

- Senior Rugby – No.2 Senior Rugby field in use (approximately 40 players plus up to 60 spectators, officials and club volunteers, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices;)
- Basketball – 8 players playing basketball with half speaking in raised voices
- Play spaces – 6 children with half speaking in raised voices in each of the playing areas (Junior Play Space, Senior Play Space and Future Activity Space)
- Flying Fox – 1 child screaming for 5 minutes in a 15 minute period along the flying fox
- Pump Track – 6 children with half speaking in raised voices
- Open Space / Dog Exercise Area – Approximately 15 dogs barking for 1 minute out of 15 minutes

We note the following:

- We have previously measured a noise level of 98 dB  $L_{Aeq}$  at 1 metre from approximately 15 dogs barking. We have used this in our analysis and have assumed that the dogs would only bark for 1 minute out of the 15 minute period in the Open Space / Dog Exercise Area. This is a conservative assumption and we would expect the actual noise levels from the Open Space / Dog Exercise Area to be lower.
- Expected noise levels due to the conversation of players and spectators have been based on the American National Standards Institute Standard ANSI S3.5 – 1997 *Methods for calculation of the Speech Intelligibility Index*, which contains information on the typical speech levels for both male and

female speakers. Based on average values, for a raised voice effort, the sound power of a speaker may be deduced to be 78 dB  $L_{WA}$ .

- We have assumed a sound power level of 100 dB  $L_{WA}$  for the child screaming along the flying fox.

Based on above, the expected worst-case noise levels are shown in figure 3.2 below, considering both the existing and proposed activities.



**Figure 3.2 – Noise emissions associated with peak winter activities in a worst case 15 minute period**

Based on the modelling, the worst-case noise levels shown in table 3.1 are expected at the nearest residential boundary or notional boundary labelled (A) to (E) in figure 3.2 above. This analysis includes the site acoustic fencing as discussed above.

**Table 3.1 – Noise levels from winter activities in a peak 15 minute period**

Location	Noise levels (dB $L_{Aeq}$ )
A: Site boundary of 50 High Street	47
B: Site boundary of 20 High Street	47
C: Site boundary of 15 High Street	46
D: Notional boundary of dwelling at 71 Tramway Road	47
E: Site boundary of 3/1299 Courtenay Road	39



We therefore expect noise levels of less than 50 dB  $L_{Aeq}$  between 0700 and 2200 hours at all neighbouring noise sensitive locations. We expect the effects of this noise to be minimal.

With regard to District Plan compliance, the noise limits within the District Plan are expressed in terms of the  $L_{A10}$  parameter (rather than the  $L_{Aeq}$  parameter recommended in most recent guidance) and  $L_{AFmax}$  limits. Based on our noise measurements of the netball and rugby activity, there is a + 3 dB difference between the  $L_{Aeq}$  and  $L_{A10}$  and a + 22 dB between the  $L_{Aeq}$  and  $L_{AFmax}$ . Based on these adjustments, we have the following comments:

- Noise levels from the activities occurring within the portion of the Kirwee Recreation Reserve site zoned Living 1 (existing activity) are expected to be up to 61 dB  $L_{A10}$  / 80 dB  $L_{AFmax}$  at the eastern boundary of the site (A & P Showgrounds) zoned Living 1. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limit of 85 dB  $L_{AFmax}$  is expected; however, the District Plan noise limit of 50 dB  $L_{A10}$  is exceeded.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, both the  $L_{A10}$  and  $L_{AFmax}$  noise limits would be exceeded.
- The activities occurring within the portion of the Kirwee Recreation Reserve site zoned Outer Plains are expected to result in noise levels of up to 57 dB  $L_{A10}$  / 76 dB  $L_{AFmax}$  at the site boundary of the neighbouring site (50 High Street) zoned Living 1. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limit of 85 dB  $L_{AFmax}$  is expected; however, the District Plan noise limit of 55 dB  $L_{A10}$  is exceeded.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, both the  $L_{A10}$  and  $L_{AFmax}$  noise limits would be exceeded.
- The activities occurring within the portion of the Kirwee Recreation Reserve site zoned Outer Plains are expected to result in noise levels of up to 50 dB  $L_{A10}$  / 69 dB  $L_{AFmax}$  at the notional boundary of the dwelling at the neighbouring site (71 Tramway Road) to the southwest zoned Outer Plains. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limits of 60 dB  $L_{A10}$  / 85 dB  $L_{AFmax}$  is expected.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, compliance with the District Plan noise limit of 70 dB  $L_{AFmax}$  is expected; however, the District Plan noise limit of 45 dB  $L_{A10}$  would be exceeded.

However, as discussed above, noise levels of less than 50 dB  $L_{Aeq}$  are expected at the closest noise sensitive locations and we therefore expect the associated noise effects to be minimal.

### **3.2.2 Peak activities in summer**

Based on correspondence, we understand that cricket, tennis and bowls only operate over the summer months. We have considered a peak operating scenario based on a busy Saturday morning for events or Thursday evening for training with the following activities (and associated noise sources) occurring simultaneously within the reserve:

#### Existing activities

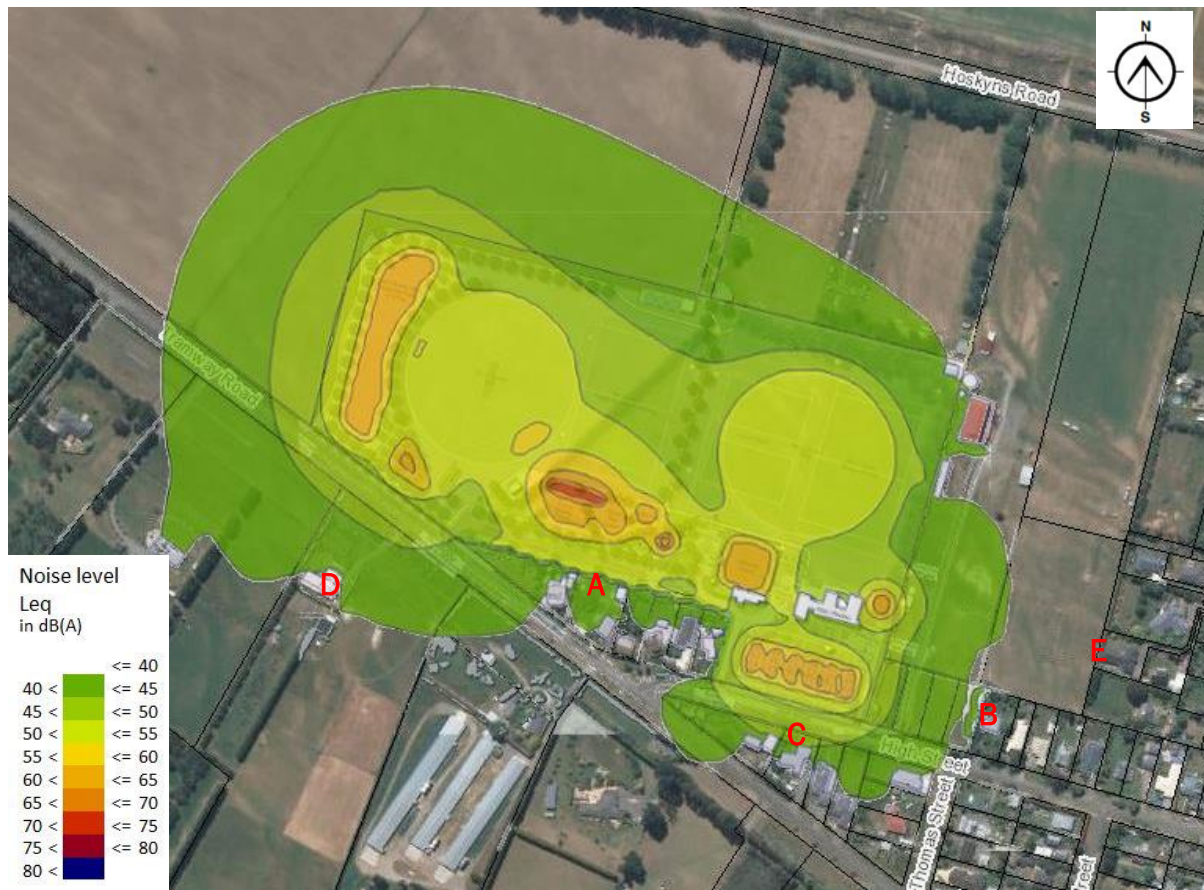
- Cricket – No.2 Cricket field in use (approximately 40 players plus up to 20 spectators, officials and club volunteers, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)

- Tennis – six courts in use (based on double games with spectators – up to 40 people, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)
- Bowls – four games underway (32 players, with half the spectators speaking in raised voices, as well as 4 players / coaches speaking in raised voices)
- Playground – 6 children with half speaking in raised voices in the existing playground

Proposed activities

- Cricket – No.1 Cricket field in use (approximately 40 players plus up to 20 spectators, officials and club volunteers, with half the spectators speaking in raised voices on the sidelines, as well as 4 players / coaches speaking in raised voices)
- Basketball – 8 players playing basketball with half speaking in raised voices
- Play spaces – 6 children with half speaking in raised voices in each of the playing areas (Junior Play Space, Senior Play Space and Future Activity Space)
- Flying Fox – 1 child screaming for 5 minutes in a 15 minute period along the flying fox
- Pump Track – 6 children with half speaking in raised voices
- Open Space / Dog Exercise Area – Approximately 15 dogs barking for 1 minute out of 15 minutes

Based on above, the expected worst-case noise levels are shown in figure 3.3 below.



**Figure 3.3 – Noise emissions associated with the peak summer activities**

Based on the modelling, the worst-case noise levels shown in table 3.2 are expected at the nearest residential boundary or notional boundary labelled (A) to (E) in figure 3.3 above, with the site acoustic fencing discussed above.

**Table 3.2 – Noise levels from the summer activities**

Location	Noise levels (dB L <sub>Aeq</sub> )
A: Site boundary of 50 High Street	45
B: Site boundary of 20 High Street	36
C: Site boundary of 15 High Street	47
D: Notional boundary of dwelling at 71 Tramway Road	44
E: Site boundary of 3/1299 Courtenay Road	35

We therefore expect noise levels of less than 50 dB L<sub>Aeq</sub> between 0700 and 2200 hours. We expect the effects of this noise to be minimal.

With regard to District Plan compliance, as discussed above, we have considered a + 3 dB difference between the L<sub>Aeq</sub> and L<sub>A10</sub> and + 22 dB between the L<sub>Aeq</sub> and L<sub>AFmax</sub> based on our measurements. Based on these adjustments, we have the following comments:



- The activities occurring within the portion of the Kirwee Recreation Reserve site zoned Living 1 (existing activity) are expected to result in noise levels of up to 58 dB  $L_{A10}$  / 77 dB  $L_{AF\ max}$  at the eastern boundary of the site (A & P Showgrounds) zoned Living 1. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limit of 85 dB  $L_{AF\ max}$  is expected; however, the District Plan noise limit of 50 dB  $L_{A10}$  is exceeded.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, both the  $L_{A10}$  and  $L_{AF\ max}$  noise limits would be exceeded.
- The activities occurring within the portion of the Kirwee Recreation Reserve site zoned Outer Plains are expected to result in noise levels of up to 48 dB  $L_{A10}$  / 67 dB  $L_{AF\ max}$  at the site boundary of the neighbouring site (50 High Street) zoned Living 1. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limits of 55 dB  $L_{A10}$  / 85 dB  $L_{AF\ max}$  is expected.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, compliance with the District Plan noise limit of 70 dB  $L_{AF\ max}$  is expected; however, the District Plan noise limit of 40 dB  $L_{A10}$  would be exceeded.
- The activities occurring within the portion of the Kirwee Recreation Reserve site zoned Outer Plains are expected to result in noise levels of up to 47 dB  $L_{A10}$  / 66 dB  $L_{AF\ max}$  at the notional boundary of the dwelling at the neighbouring site (71 Tramway Road) to the southwest zoned in Outer Plains. Therefore,
  - Between 0730 and 2000 hours, compliance with the District Plan noise limits of 60 dB  $L_{A10}$  / 85 dB  $L_{AF\ max}$  is expected.
  - If this worst-case scenario activity was to occur between 0700 and 0730 hours or between 2000 and 2200 hours, compliance with the District Plan noise limit of 70 dB  $L_{AF\ max}$  is expected; however, the District Plan noise limit of 45 dB  $L_{A10}$  would be exceeded.

However, as discussed above, noise levels of less than 50 dB  $L_{Aeq}$  are expected at the closest noise sensitive locations and we therefore expect the associated noise effects to be minimal.

We note that post-match gatherings or community events may occur from time to time within the existing pavilion / clubrooms with the doors / windows open towards the fields. Based on the use of the building, the activities inside are not expected to occur concurrently with the other sporting activities outlined above. As this activity is already existing on site, the noise levels from the use of the building was not considered in our cumulative analysis.

### **3.2.3 Noise from vehicle movements**

Based on the traffic assessment report, it is expected there will be a maximum of 217 vehicle movements in a worst-case one-hour period during a winter weekend. Assuming the vehicle movements during a worst-case period were evenly spaced over the hour, 54 vehicle movements would take place during a worst-case 15 minute period between 0700 and 2200 hours.

We understand that 201 carparks will be provided on site, which will meet the peak demand of 184 carparks. Based on the number of carparks in each area, the vehicle movements via each route shown in figure 3.4 below have been assumed in our calculations.

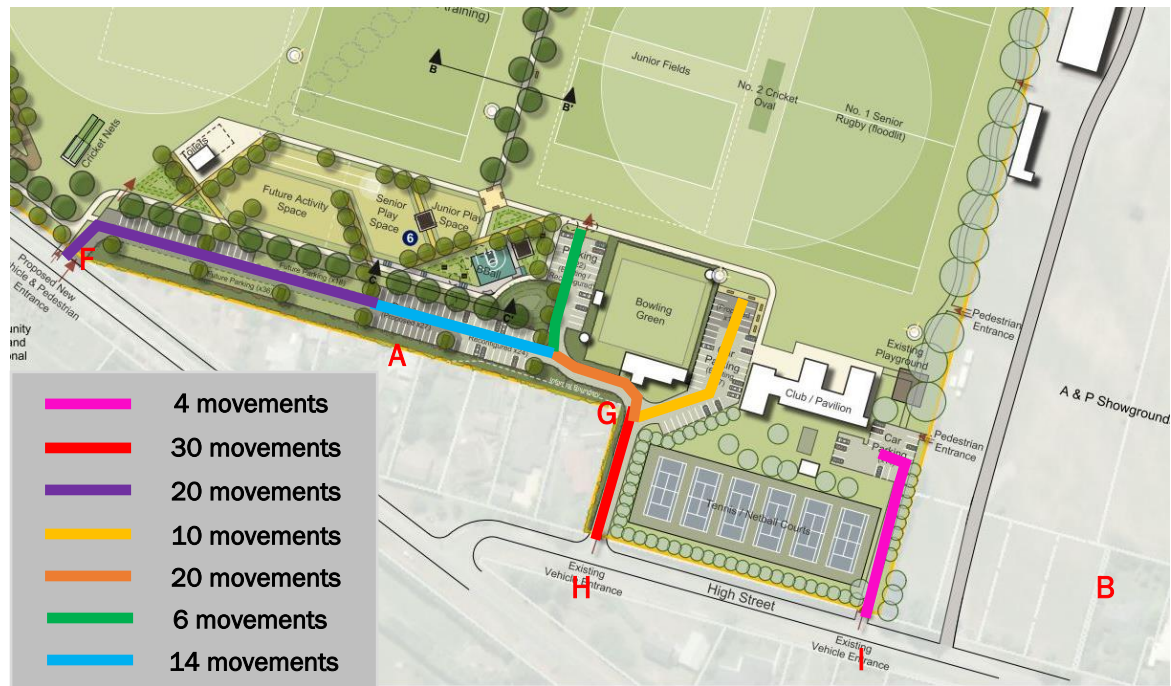


Figure 3.4 – Vehicle movement number and routes

We note that a typical light vehicle manoeuvring in a carpark setting is likely to emit a sound power of less than 90 dB  $L_{WA}$  with a speed of 10 km/hr.

Based on above, the following noise worst-case noise levels shown in table 3.3 are expected at the nearest residential boundaries (labelled A, B, F, G, H and I in figure 3.4 above), with the site acoustic fencing discussed above.

Table 3.3 – Noise levels from the vehicle movements

Location	Noise levels (dB $L_{Aeq}$ )
A: Site boundary of 50 High Street	46
B: Site boundary of 20 High Street	36
F: Site boundary of 24 Tramway Road	50
G: Site boundary of 42 High Street	49
H: Site boundary of 17 High Street	44
I: Site boundary of 9 High Street	39

We therefore expect noise levels of 50 dB  $L_{Aeq}$  or less between 0700 and 2200 hours. We expect the effects of this noise to be minimal.

With regard to District Plan compliance, we have considered whether the Selwyn District Plan  $L_{A10}$  permitted noise standard is likely to be complied with at the nearest neighbouring residential and rural sites in a worst-case scenario. As above a typical passenger vehicle manoeuvring in a carpark setting is likely to emit a sound power of less than 90 dB  $L_{WA}$ , and we have considered a speed of 10 km/hr.

Our analysis indicates the following:

- Between 0730 and 2000 hours, we expect vehicles to result in noise levels above the  $L_{A10}$  noise limit at the residential sites zoned Living 1 to the south.
- If this level of activity on the site occurs between 0700 and 0730 hours, or between 2000 and 2200 hours, we expect the noise from vehicle leaving to result in noise levels above the  $L_{A10}$  limits at the notional boundaries of the dwelling at 71 Tramway Road and at the residential sites zoned in Living 1 and Living 2 to the south.

We have also considered noise levels generated by door slams and engine starts on the site. Calculations have been based on a maximum sound power level of 92 dB  $L_{WA \max}$ . The highest  $L_{AF \max}$  levels are shown in table 3.5 below.

**Table 3.5 – Noise levels from the door slams and engine starts on the site**

Location	Noise levels (dB $L_{AF \max}$ )
A: Site boundary of 50 High Street	49
B: Site boundary of 20 High Street	48
F: Site boundary of 24 Tramway Road	47
G: Site boundary of 42 High Street	46
H: Site boundary of 17 High Street	55
I: Site boundary of 9 High Street	55

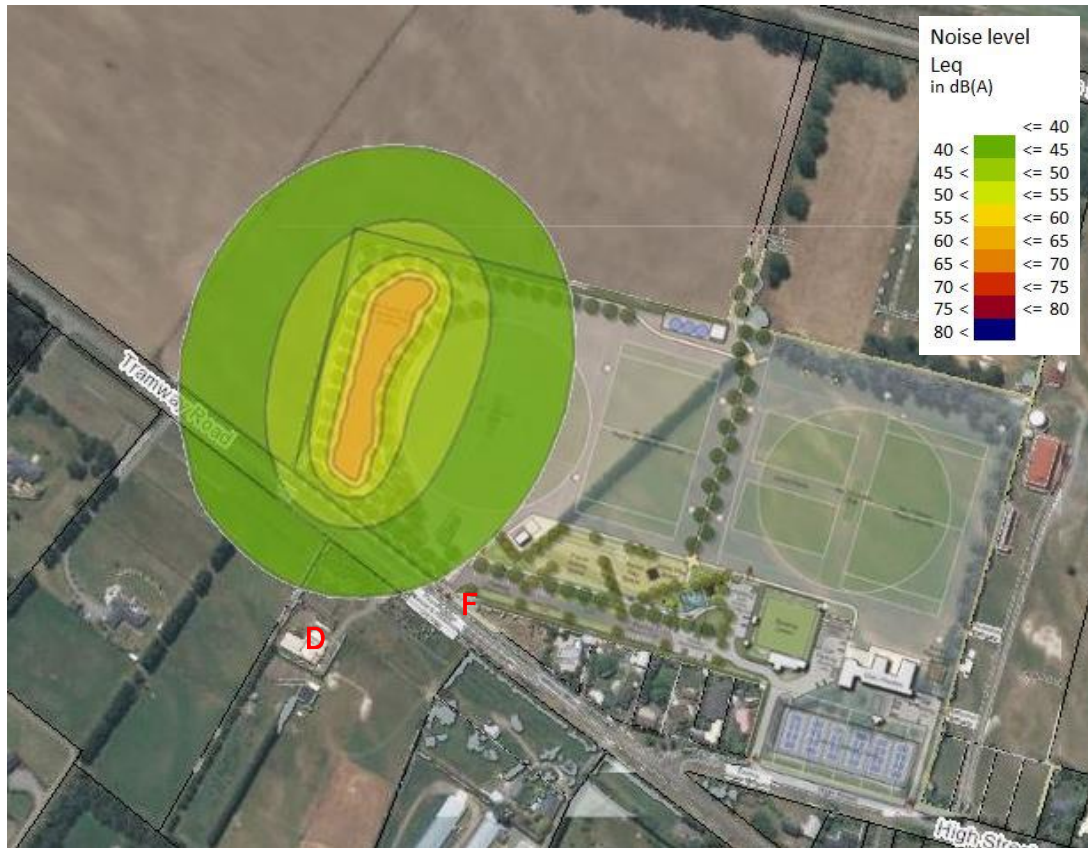
These noise levels comply with the District Plan noise limits of 85 dB  $L_{AF \max}$  between 0730 and 2000 hours, and 70 dB  $L_{AF \max}$  between 0700 and 0730 hours, and between 2000 and 2200 hours.

### 3.3 Noise from activities between 2200 and 0700 hours

We expect that use of the Open Space / Dog Exercise Area and vehicle movements will be the primary noise sources between 2200 and 0700 hours.

#### 3.3.1 Noise from dog barking

We have considered the same assumptions for the dogs as discussed above. Based on this, the expected worst-case noise levels are shown in figure 3.5 below.



**Figure 3.5 – Noise emissions associated with the use of the dog exercise area between 2200 and 0700 hours**

Based on above, the following worst-case noise levels shown in table 3.6 are expected at the nearest residential boundary or notional boundary labelled (D) and (F) in figure 3.5 above, with the site acoustic fencing as discussed above.

**Table 3.6 – Noise levels from dogs barking**

Location	Noise levels (dB L <sub>Aeq</sub> )
D: Notional boundary of dwelling at 71 Tramway Road	40
F: Site boundary of 24 Tramway Road	39

We therefore expect noise levels of 40 dB L<sub>Aeq</sub> or less to occur between 2200 and 0700 hours. We expect the effects of this noise to be minimal.

With regard to District Plan compliance, as discussed above, we have assumed dogs barking for 1 minute out of a 15 minute period and therefore less than 90 seconds within any 15-minute period. While dogs barking would potentially generate instantaneous noise levels in excess of 40 dBA at the neighbouring properties boundaries, they are not expected to spend enough time on the site to influence the L<sub>A10</sub> noise level, and therefore compliance with the night-time noise limits of 40 dB L<sub>A10</sub> and 45 dB L<sub>A10</sub> is expected at all neighbouring properties. Compliance with the District Plan noise limit of 70 dB L<sub>AFmax</sub> is also expected at all neighbouring properties.

### 3.3.2 Noise from vehicle movements

We have assumed two vehicle movements via each vehicle entrance point (8 vehicle movements in total) during a 15 minute period in the early morning or night-time period.

Based on above, the worst-case noise levels shown in table 3.7 are expected at the nearest residential boundaries (labelled A, B, F, G, H and I in figure 3.4 above), with the site acoustic fencing as discussed above.

**Table 3.7 – Noise levels from the vehicle movements before 0700 hours**

Location	Noise levels (dB L <sub>Aeq</sub> )
A: Site boundary of 50 High Street	35
B: Site boundary of 20 High Street	34
F: Site boundary of 24 Tramway Road	34
G: Site boundary of 42 High Street	26
H: Site boundary of 17 High Street	39
I: Site boundary of 9 High Street	32

We therefore expect noise levels of less than 40 dB L<sub>Aeq</sub> at all neighbouring noise-sensitive site between 2200 and 0700 hours. We expect the effects of this noise to be minimal.

We have also considered noise levels generated by door slams and engine starts on the site. Calculations have been based on a maximum sound power level of 92 dB L<sub>WA max</sub>. The highest L<sub>AFmax</sub> levels would be the scenarios during the daytime which are shown in table 3.5 above. We therefore expect noise levels of 70 dB L<sub>AFmax</sub> or less between 2200 and 0700 hours and the associated effects to be minimal.

With regard to District Plan compliance, vehicles would need to be generating noise within 23 – 220 metres of the boundaries (depending on the location) for a combined total of more than 90 seconds during any 15-minute period for the District Plan L<sub>A10</sub> noise limits to be exceeded.

Therefore, assuming 8 vehicle movements during a worst-case 15 minute period, there is the potential that the vehicles would generate noise within the relevant distances for more than 90 seconds. Therefore the L<sub>A10</sub> noise limits have the potential to be exceeded at the notional boundaries of the dwelling at 71 Tramway Road and at the residential sites zoned Living 1 and Living 2 to the south.



#### 4.0 CONCLUSIONS

Noise from all sources expected to be associated with the extension of the Kirwee Recreation Reserve has been considered.

Based on a review of the Selwyn District Plan, World Health Organisation Guidelines, and NZS 6802, we consider noise at the following levels (measured and assessed in accordance with NZS 6801:2008 and NZS 6802:2008) when received at the boundary of the surrounding residential sites and at the notional boundary of the dwellings on the surrounding rural sites, will not be unreasonable, and will have a minimal effect on neighbouring properties:

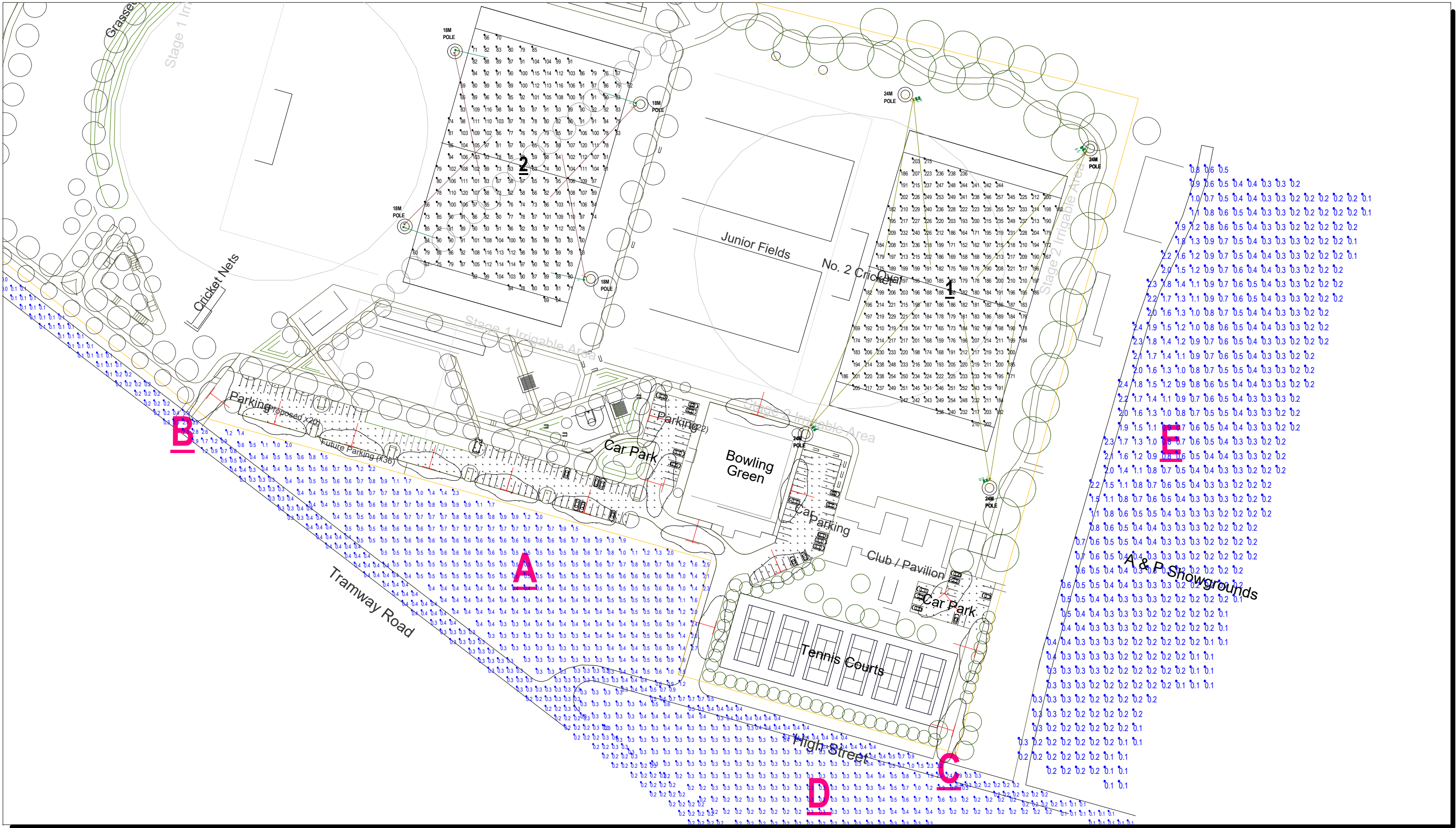
0700 to 2200 hours	50 dB L <sub>Aeq</sub>
2200 to 0700 hours	40 dB L <sub>Aeq</sub> / 70 dB L <sub>AFmax</sub>

Our modelling of noise emissions from the site has confirmed that activities on the site would result in noise levels of 50 dB L<sub>Aeq</sub> or less between 0700 and 2200 hours with 40 dB L<sub>Aeq</sub> / 70 dB L<sub>AFmax</sub> or less between 2200 and 0700 hours at the residential site boundaries and at the notional boundary of the dwellings on the surrounding rural sites, with the existing 1.8 metre high and proposed 2.0 metre high acoustic fence along the residential site boundaries to the southwest as shown in figure 3.1.

In terms of compliance with the District Plan, we expect that the L<sub>A10</sub> and L<sub>AFmax</sub> noise limits maybe exceeded at the neighbouring properties. However, as discussed above, the noise levels are expected to comply with the recommended L<sub>Aeq</sub> noise levels at the neighbouring noise sensitive sites. We would therefore expect the associated noise effects to be minimal.

## **Appendix G**

### Lighting Assessment



**PHILIPS NZ LTD**  
Level 3,  
123 Carlton Gore Rd.,  
Newmarket,  
Auckland 1023  
NEW ZEALAND

## Kirwee Recreation Reserve

Selwyn, New Zealand

Kirwee Recreation Reserve

Lighting Prediction Plan 1

- Zoomed-in View

SCALE: (on plan)

MAIN PRODUCTS / CODES

Luminaire Schedule							
Symbol	Label	Description	LLF	Qty	Lum. Watts	Total Watts	
■	A-NB	OptiVision LED_BVP525_OUT_T15_100K_LED2020_757_A-NB	0.760	20	1471	29420	
■	L1	BRP711 LED42/WW 36W PSD DWP3 P7 ANZ (L1)	0.760	16	36	576	
■	S4	OptiVision LED_BVP525_OUT_T15_100K_LED2020_757_S4	0.760	8	1471	11768	
■	S8	OptiVision LED_BVP525_OUT_T15_100K_LED2020_757_S8	0.760	4	1471	5884	



BRP711



OptiVision LED

DESIGN REFERENCES :			Date: 30/08/2019	
Item	Description	Details	Comm. / Summ.	
A	Salesforce no. -	000000		
B	Designed by -	RV		
C	Checked by -	AS		
D	Design version -	SET: 01	REVISION: 03	
E	DSGN HRS USED	Hrs: Rate: \$ / hr	Total:	

Calculation Summary						
Label	Avg	Units	Min/Avg	Min	Max	Max/Avg
Carparks	5.25	Lux	0.27	1.4	34.9	6.65
No 1	207.46	Lux	0.73	152	257	N.A.
No 2	88.87	Lux	0.60	53	120	N.A.
Spill - A area	N.A.	Lux	N.A.	0.3	2.7	N.A.
Spill - B&C Tramway-High Sts	N.A.	Lux	N.A.	0.0	3.9	N.A.
Spill - D area	N.A.	Lux	N.A.	0.2	1.3	N.A.
Spill - E area	N.A.	Lux	N.A.	0.1	2.4	N.A.

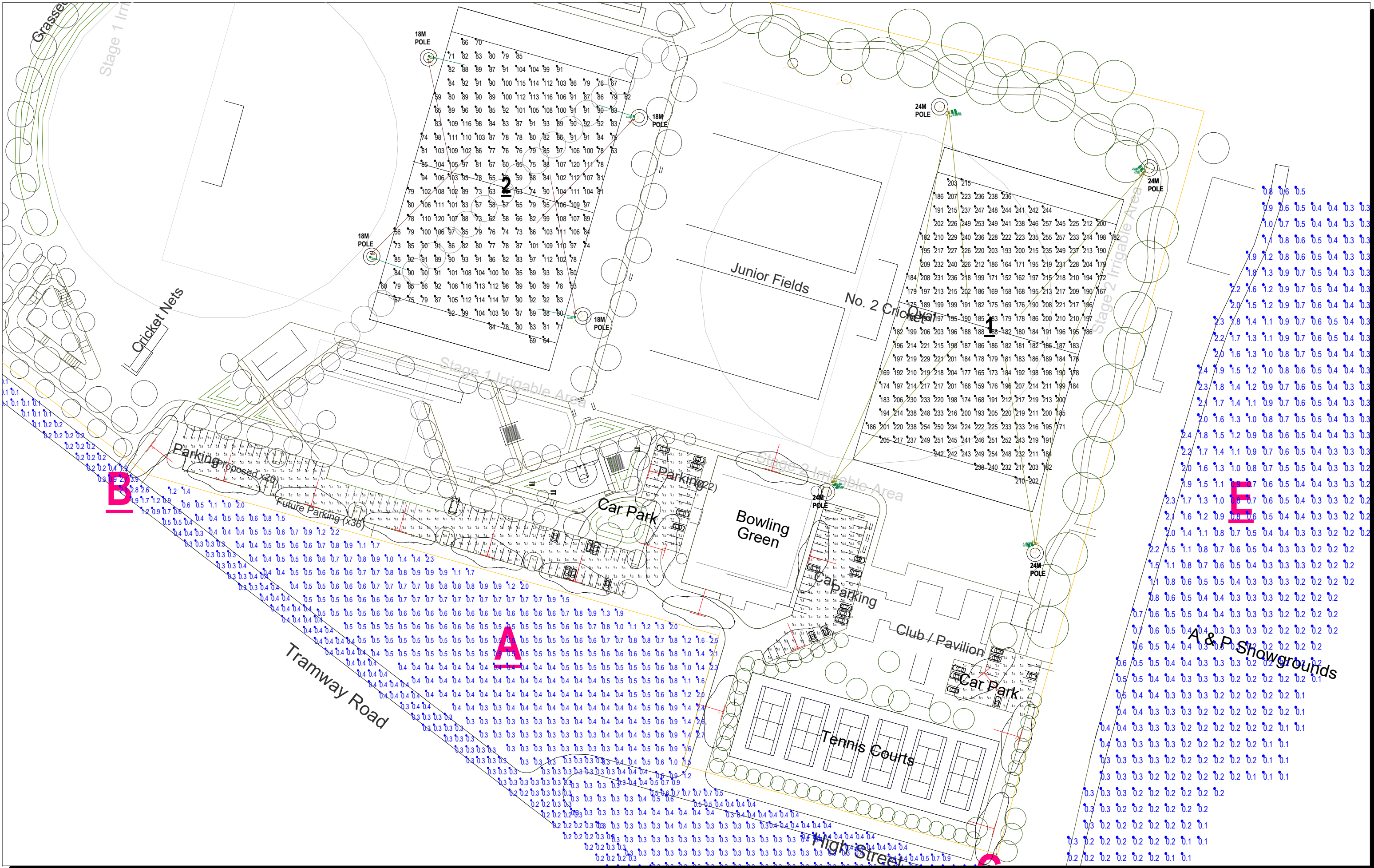
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**PHILIPS NZ LTD**  
Level 3,  
123 Carlton Gore Rd.,  
Newmarket,  
Auckland 1023  
NEW ZEALAND

## Kirwee Recreation Reserve

Selwyn, New Zealand

Kirwee Recreation Reserve

Lighting Prediction Plan 2

- Overall View

SCALE: (on plan)

MAIN PRODUCTS / CODES



BRP711



Optvision LED

DESIGN REFERENCES :			Date: 30/08/2019
Item	Description	Details	Comm. / Summ.
A	Salesforce no. -	000000	
B	Designed by -	RV	
C	Checked by -	AS	
D	Design version -	SET: 01	REVISION: 03
E	<b>DSGN HRS USED</b>	<b>Hrs: Rate: \$ / hr</b>	<b>Total:</b>

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## **Appendix H**

### CPTED Assessment



## **Crime Prevention through Environmental Design (CPTED) Analysis of the Proposed Kirwee Reserve Master Plan – Dated 26 June 2019**

The following is a CPTED review of Selwyn District Council (SDC) proposed Kirwee Reserve Master Plan, dated 26 June 2019.

This review has been undertaken internally by Derek Hayes, who is a Landscape Architect employed with the Selwyn District Council.

### **Proposal:**

Based on the Master Plan, the proposal is to extend the Kirwee Reserve to allow for:

- The establishment of a second dedicated cricket oval;
- Reorientation of the number two senior rugby field and the creation of a second junior rugby field;
- The provision of an open space area available for off-leash dog exercise;
- Perimeter walking tracks and an improved footpath network;
- The creation of a 'community activities hub', inclusive of children's play facilities, BBQ's and picnicking facilities, public toilets;
- Increased car parking and lighting;
- Space for other recreational facilities including a bmx pump track.

As part of the overall reserve redevelopment the proposal also includes landscaping, largely consisting of native shrub borders, specimen tree planting and grassed earth mounding.

### **Site Context:**

The surrounding area consists of residential properties bordering the reserve along the southern boundary, the A&P Showgrounds along the east, the Kirwee Cemetery to the north, and rural farmland to the west/north west. Current visibility into the reserve is predominantly via the surrounding rurally focussed A&P grounds, cemetery and farm land. There is limited street frontage and a few neighbouring residential properties along the southern boundary.

From discussions with Reserve Committee members, there has been a couple of isolated incidents of vandalism or anti-social behaviour reported within the Reserve over the last couple of years. There was one major incident where windows were broken in the public toilets and graffiti which required a complete repainting of the inside of the toilets. Additionally, there were a number of trees that had graffiti painted on them. On occasion there has been reported evidence of vehicle misuse (loss of traction) within the western car park area.

### **Design Considerations:**

Through the master planning design process the following considerations have been made to assist with preventing potential crime and anti-social behaviour occurring within Kirwee Reserve.

- The design seeks to, as much as possible, increase the provision of car parking within close proximity to building entranceways and key facilities. An additional 13 car parks have been provided within the existing car park adjacent to the main reserve pavilion. Additional new car parking is also proposed adjacent to the 'community activity hub' and children's play

areas, as well as to service new cricket facilities and dog exercise area towards the western end of the reserve.

- The design places an emphasis on the facilitation of pedestrian movement and provision of safe linkages, particularly between reserve entry points, car parking, and key facilities and building entranceways. A well-structured footpath network is proposed that connects facilities both in an east/west and north/south direction. Footpaths are long and linear and have been offset from structures, fences, dense plantings or potential blind spots to ensure the provision of adequate sight lines. All proposed landscaping near footpaths is generally specified as specimen trees that are to be limbed in height to maintain a clear line of sight.
- It is proposed to illuminate the main car park areas and those pedestrian linkages connecting car parking and main building entranceways only, to ensure these are able to be used safely at night. The lighting of footpaths is only proposed for essential designated routes only where there is no alternative safe route provided.
- The provision of clear signage will be advocated for as part of the development, to clearly identify main and secondary entranceways into the reserve. Internal signage within the Reserve will also be specified to assist with wayfinding around the bowling club facility in either direction – to available parking and facilities on either side (either the pavilion or proposed community activity hub).
- Consideration has been given to the locations and context of vulnerable facilities (such as children's play areas, public toilets etc.). The public toilets and playground areas have been located so that they are easily visible from within the reserve and within close proximity to higher use areas, such as sports fields, footpaths and car parking. The proposed toilets front onto public space. In terms of the relationship between the reserve and adjoining land uses, there is a concern that the reserve will not be as visible from neighbouring housing following the installation of the required acoustic fencing along the southern reserve boundary. There will however be additional visibility into the Reserve created through the development of the Tramway Rd frontage, which will help with passive surveillance.
- The design has given thought to the expected use patterns (time of day, peak periods, activity mix etc.). The idea behind the 'community activity hub' is to increase usage and promote a centralised area within the reserve where a variety of activities are provided for. It is believed that by grouping facilities together, a range of users will be attracted to this area of the reserve, who might also feel encouraged to stay for a longer period (e.g. by providing BBQ and picnicking facilities). This will in turn help to ensure there is activity occurring throughout the day.
- Besides enhancing amenity values, the design and placement of landscape elements (such as the avenue tree planting), will help to define the different activity spaces and car parking areas, as well as to support the legibility of the footpath network (while maintaining a clear line of sight).
- The design includes the placement of physical protection measures in the form of bollards to restrict vehicle access onto playing fields and playground areas, and speed humps to limit vehicle speeds within the car parks. The provision of gates to lock areas of the car park after hours could be considered as a measure should issues arise that need to be managed.
- There has been extensive community involvement in the design process, including consultation with adjoining landowners of design decisions. The process has helped to

provide better understanding of the local context and has allowed potential issues to be identified early and addressed through the design.

- It is expected that there will remain a high standard of reserve upkeep, to maintain an appearance of a well utilised and cared for environment. Maintenance regimes will be implemented by Council and will be adjusted to keep pace with utilisation (e.g. the servicing of rubbish bins and toilets).

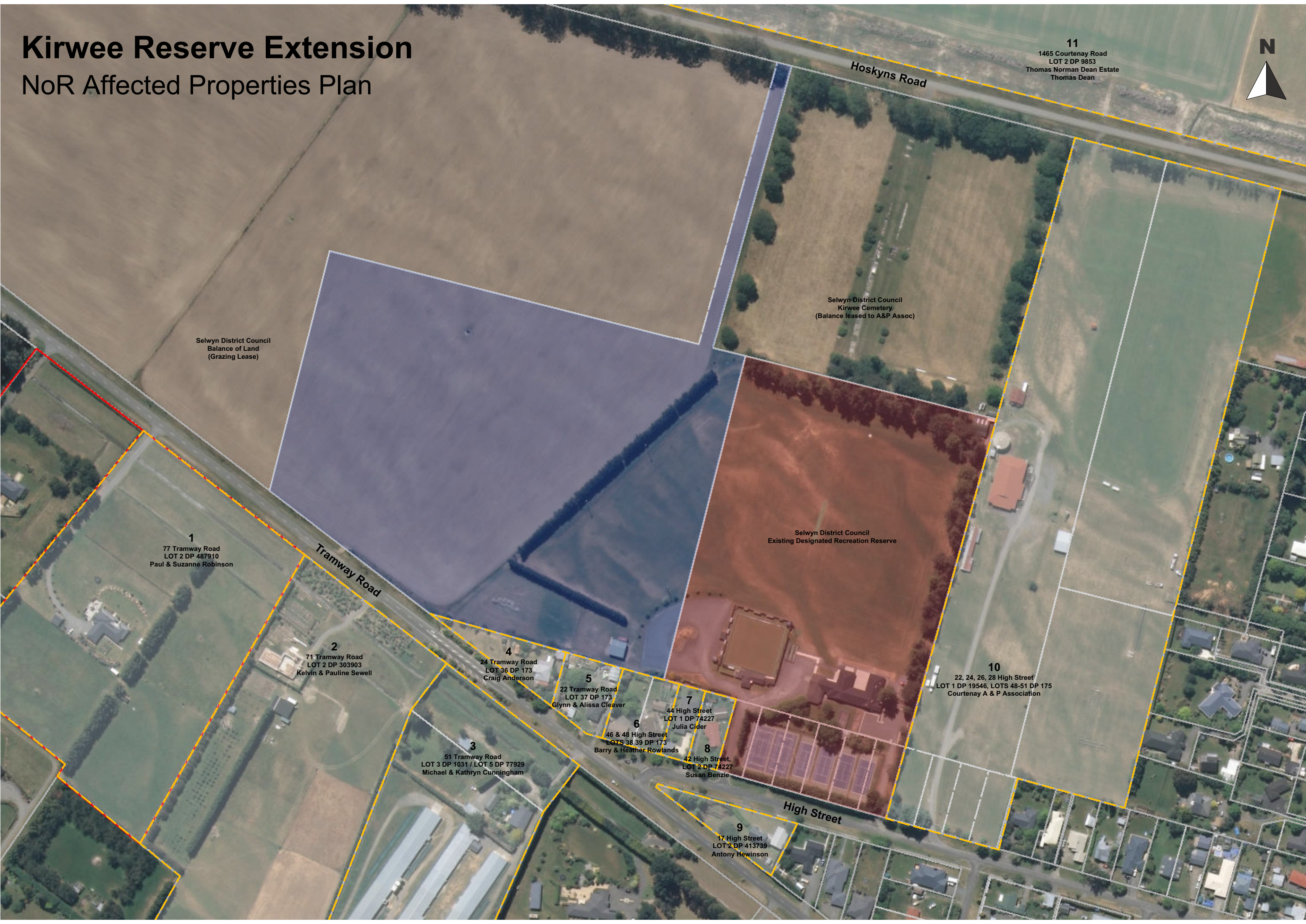
## **Appendix I**

### **Consultation Letter and Identified Properties**



# Kirwee Reserve Extension

## NoR Affected Properties Plan



11  
1465 Courtenay Road  
LOT 2 DP 9853  
Thomas Norman Dean Estate  
Thomas Dean

Selwyn District Council  
Kirwee Cemetery  
(Balance leased to A&P Assoc)

Selwyn District Council  
Existing Designated Recreation Reserve

Selwyn District Council  
Balance of Land  
(Grazing Lease)

1  
77 Tramway Road  
LOT 2 DP 487910  
Paul & Suzanne Robinson

2  
71 Tramway Road  
LOT 2 DP 303903  
Kelvin & Pauline Sewell

4  
24 Tramway Road  
LOT 36 DP 173  
Craig Anderson

5  
22 Tramway Road  
LOT 37 DP 173  
Glynn & Alissa Cleaver

3  
51 Tramway Road  
LOT 3 DP 1031 / LOT 5 DP 77929  
Michael & Kathryn Cunningham

6  
46 & 48 High Street  
LOTS 38 39 DP 173  
Barry & Heather Rowlands

7  
44 High Street  
LOT 1 DP 74227  
Julia Cider

8  
42 High Street,  
LOT 2 DP 74227  
Susan Benzie

9  
17 High Street  
LOT 2 DP 413739  
Antony Hewinson

10  
22, 24, 26, 28 High Street  
LOT 1 DP 19546, LOTS 48-51 DP 175  
Courtenay A & P Association



31 July 2019

Name

Address 1

Address 2

**CHRISTCHURCH 7676**

Dear resident

### **Proposed land extension and development of Kirwee Recreation Reserve**

Selwyn District Council is proposing to extend and enhance the Kirwee Recreation Reserve. We are contacting you as an owner of property in the immediate vicinity of the existing reserve and planned extension, and value any initial feedback you may have on what is proposed. An outline of the proposed extension is shown in the enclosed Draft Master Plan and landscape drawings.

The Council has purchased additional land to extend the reserve and provide for the future sports and recreation needs of the Kirwee community. The land is located off Tramway Rd and extends west of the current reserve boundary.

As part of the process, the Council intends to designate the new area of land for "Recreation Reserve Purposes". This will require Council to submit a Notice of Requirement under the Resource Management Act (1991), in a similar manner to a resource consent application. This process is explained further in the enclosed 'Designation Process' information sheet. Also enclosed is a 'Site Location Plan' showing the reserve extension – which is proposed to be designated.

The Council has worked with the Kirwee Community and Reserve committees to jointly develop a master plan that will to guide future development of the reserve.

The reserve extension works will include:

- a formed perimeter walkway
- native and specimen tree planting
- an open space area that can be used for off-leash dog exercise
- informal areas for children's play (eg a BMX 'pump' track).

The additional reserve land will also make it possible to realign the existing number two rugby field and provide a second dedicated cricket oval.

New developments proposed for the existing reserve include:

- a centralised 'community hub' that will include playground facilities for all age groups

- a basketball half-court
- other amenities such as public toilets, formed footpaths, shelter, picnic areas and seating

Additional car parking will be created along the southern reserve boundary (next to the existing formed car parking) to cater to activities located within new areas of the reserve. There is space allocated for further parking should there be a demand in future.

Funding for the implementation of the master plan has been provided for within Council's Long-Term Plan.

### **Your feedback on the plans**

The Council welcomes any written feedback on the proposal. This can either be addressed to:

**Selwyn District Council**  
**ATTN: Derek Hayes,**  
**PO Box 90**  
**Rolleston 7643**

or emailed to: **derek.hayes@selwyn.govt.nz**

Feedback is due by 5pm on Thursday 29 August 2019.

### **Community meeting**

The Kirwee Community and Reserve Committees are also holding a community meeting to provide an opportunity for residents to view and discuss the plans in detail with committee members who have been involved in the planning of the proposed development.

This meeting will be held at 9.30am on Saturday 24 August 2019, at the Kirwee Reserve Pavilion.

There will also be a further opportunity for formal submissions on the designation for the proposed recreation reserve in the near future (as noted in the enclosed 'Designation Process' information' sheet).

If you have any questions about the proposed reserve extension and redevelopment, please feel free to contact me on (03) 347 2952 or via email (as above).

Yours faithfully,



Derek Hayes  
**PROPERTY & OPEN SPACE PLANNER**

## **Kirwee Recreation Reserve Designation process – further information**

Part of the Kirwee Recreation Reserve proposal is to officially designate the new area of land for Recreation Reserve Purposes.

The Resource Management Act 1991 (RMA) allows Selwyn District Council to designate land for large public projects or works. This is called a designation and it authorises specific land uses at a site, in this case recreation reserve activities without the need for resource consent. Once the designation is in place, the Council may carry out works in accordance with the designation (which may be subject to conditions), without the subsequent need to comply with district plan rules. However, the Council must submit an Outline Plan of Works for larger scale works to demonstrate that the development is in accordance with the purpose of the designation: Recreation Reserve.

To designate the land, the Council must submit a Notice of Requirement (NoR), in a similar manner to a resource consent application. A NoR is the way the Council gives notice that it is seeking to designate the land for a specific purpose. Before applying for a NoR the Council will undertake the following:

- Investigating the strategic need for the project
- Consulting with the community and affected landowners
- Assessing options and evaluations before selecting a preferred option
- Commissioning specialist assessments on project and environmental effects and how they can be avoided, managed or mitigated

Any NoR for a designation may be publicly notified or limited notified and will depend on the extent of the effects on the environment. If the NoR is publicly notified any member of the public can then prepare and lodge a submission with the Council within 20 working days. If the application is limited notified then those parties to which the application is notified can submit on the application.

If the NoR is notified, a public hearing may be held, at which all submitters are able to be heard.

A recommendation on whether the designation should be confirmed in the District Plan (with or without modification to the conditions) or be withdrawn will be made by an independent commissioner as the Council is both the requiring authority and the decision maker. A decision is then made to either accept or reject the recommendation in part or full.

Once the designation is in place, an Outline Plan will be submitted to the Council. The Outline Plan provides details on the proposed works and in this case it will provide further details on the facilities proposed for both the redevelopment of the existing Kirwee Recreation Reserve and the works proposed for the reserve extension.

## **Appendix J**

### Consultation Feedback

## **Summary and Analysis of Feedback Received**

### **As part of community consultation on the Draft Kirwee Reserve Master Plan**

**August/September 2019**

#### **Background:**

The Kirwee Reserve Development Working Group has been meeting over the past two years, working towards the development of a master plan for Kirwee Reserve, including proposals for the development of the additional land purposed for an extension to the Reserve.

The Working Group called for written feedback on the Draft Kirwee Reserve Master Plan over August 2019. Various platforms were used to advertise the master plan, including; adverts in local newspapers, plans displayed at the Reserve, Council website, social media, and fliers. Feedback was invited via an online survey, printed feedback form, and attendance at a community drop-in held on the morning of Saturday 24<sup>th</sup> August.

The community drop-in session was well attended by approximately 30 people, including members of the Kirwee Community and Reserve Committees. The purpose of the drop-in was to give people an opportunity to discuss details of the proposed Plan with members of the Working Group.

A report from Council's online engagement platform showed that a total of 146 people visited the website, this includes 57 people who downloaded a copy of the master plan. Along with the attendance at the drop-in, this is considered a reasonable level of engagement for a localised project.

A total of nine (9) written responses were returned. Five (5) of the submissions were submitted on the feedback form that was provided. Note, the other four (4) submissions have still been incorporated into this analysis report under each question where considered relevant.

The analysis of all feedback (written and verbal) is presented below and represents in summary what was received. It is not intended as a complete transcript of all feedback received. A 'suggested response' is given to each topic, which will form the basis of a written reply back to all those that submitted written feedback.



## **Written Feedback - Summary Statement:**

There were several main themes that emerged from the written feedback received. These include:

- The need to retain existing, or improve, shelter planting within the reserve.
- Feedback on suggested tree species.
- Priorities for development.
- The provision of an off-leash dog exercise area.

A summary on responses received to each question (via the provided feedback form) is given as follows:

### ***Q.1) Do you have any comments on the overall design proposal – to develop additional sports field capacity, new open space areas and walkways for recreation and dog exercise?***

The majority of responses endorsed the plan and the work to date that had gone into developing it. It was commented that the reserve needed to cater to a range of community recreational needs and it was believed that the proposed development will do this once implemented.

By far the most common thread raised through responses was in relation to proposed tree planting, species mix, and the need to retain/establish adequate shelter.

It was indicated that the Reserve is very exposed to both northerly and southerly winds and the desire to retain the existing pine (western) shelter was raised several times through feedback (for as long as possible, or at least until new shelter has been established). There is concern that the climate in Kirwee makes it difficult to get new trees to establish.

There was consensus that the establishment of new trees needs to happen as soon as possible to maximise growth before any existing shelter is removed.

The following is a summary of the key points raised through feedback relating to tree plantings and shelter:

- Caution as to removal of the existing pine shelter on the western side until one is satisfied that there is sufficient replacement shelter.
- Consider the use of evergreen trees (as well as deciduous) to give more shelter to cold winds during winter, and reduce issues of leaf fall.
- The types of trees indicated on the plan are lovely for providing shade, but not shelter. Specimen trees with lower branches removed allow wind and draughts to go through them.
- Include a mix of faster growing species to quickly replace lost shelter.
- New trees to be planted in a larger grade with irrigation to aid quick establishment.
- Improve shelter along the northern reserve boundary (existing reserve) where there are currently draughts beneath the larger (evergreen) trees.
- Oaks need to be away from play areas as the acorns may be an issue.

Several submissions also highlighted a preference for either retaining the shelter belt, or for providing other passive recreational facilities, and play areas for youth etc. ahead of developing further playing fields, or for it to be considered as a higher priority.

There was support and appreciation shown for the provision of an off-leash dog area. But it was commented that increased enforcement of the dog control bylaws are needed if dogs are to be encouraged into the reserve.

### **Suggested Response:**

*The matter of removing the pine shelter belt and the need for additional sports field development has been discussed at length by the Project Steering Group. It is acknowledged that the climate and soil conditions experienced in Kirwee make it difficult for tree establishment. The Working Group propose that re-planting will happen as soon as possible (next autumn) and considerations such as larger grade trees, larger tree pits backfilled with quality soil/compost mix, fertilizer, and ample irrigation will be investigated to maximise new tree growth.*

*The Working Group agree with the submission point made on the benefits of an evergreen/deciduous tree mix to maximise shelter and will look to integrate evergreen coniferous type trees within the overall tree planting plan.*

*Similarly, the Working Group agree with the submission point made on the need for a mix of faster growing species to quickly replace lost shelter. This will be considered as part of developing the planting plan further.*

*The idea of including fruit trees was raised and the Working Group believe this is worth considering where it is practical to do so.*

*The Working Group have again considered the matter of retaining the existing shelter and mound, but have concluded that it causes too great a disruption to the implementation of the master plan. Aspects of the master plan such as the relocation of the earth mound, the upgrade and provision of sports field lighting, the provision of field irrigation, and the proposed central avenue tree planting linking to Anzac Lane are all dependent on the removal of the existing pine hedge.*

### **Q.2) Do you have any comments on the proposals for a central community hub with play, recreation, picnic and seating areas?**

Generally responses supported the proposal to develop a 'community activity hub' area within the reserve.

Those submissions that endorsed some but not all of the stated purposes identified the following as needing to be included/changed:

- Identified as a major priority for development (along with parking).
- Would hopefully encourage use of this space for events such as a Christmas Market.
- Questioned as to whether the facilities, if provided, will be well utilised.

- Suggested that an information board at the entrance of the reserve may help to advertise and encourage people to use the amenities.
- Suggestions to include a coin operated BBQ with overhead shelter, basic seating/picnicking facilities.
- Duplicates in part the facilities already in place by the sports pavilion (which in turn also provides shelter from wet weather). Complete the development of this space (trees/seating) prior to creating a second 'community area', although there may be a need for both in future.
- Play equipment that triggers children's imagination.
- To provide for a skate park locally. It is thought that this would be utilised more than a pump track

### ***Suggested Response:***

*The Working Group believe that by providing for and grouping facilities together it may create a destination within the reserve for a range of different activities. Considerable thought was given to the most appropriate location for the community hub, including available space and ensuring there are good connections created between existing facilities, particularly between the community hub and the pavilion.*

*The development of facilities within the 'Community Hub' and perimeter walking trails are seen as a priority to help enhance passive recreational use of the Reserve. Although available budget will dictate timeframes around when individual facilities are to be developed.*

*Because facilities are not visible from the road, improved signage is needed to guide people to facilities and available parking. To avoid the duplication of facilities, it is envisaged that facilities created would be more focused towards passive recreation and play, as opposed to facilities provided to support organised recreation/sports (as is the case nearer to the pavilion).*

*It is proposed to relocate the existing junior playground area over to the new area alongside play equipment for older aged children.*

*The provision of some skate/scooter facilities are included within the current design, with potential for expansion over time. These are to be integrated within the footpath layout. The provision of purpose built skate park is a high cost item and the Working Group believe that, at this stage, it is better to focus on providing alternative youth activities, as skate facilities are currently catered for nearby in Darfield and another is planned in West Melton.*

*The concept of providing BBQ and picnicking facilities is supported by the Working Group.*

### **Q.3) Do you have any ideas or suggestions for the children's play areas and community hub?**

The following ideas or suggestions were given:

- Include activities for older children/young adults like rope swings (that are not accessible by younger children).
- Drinking fountains.
- Coin operated/electric BBQ's
- Inclusion of a 'mini road' with stop/give way signs etc. for education children in road code instructions (examples in Rolleston Reserve and in Coalgate, Kurow)

***Suggested Response:***

*The idea of a 'mini road' with stop/give way signs etc. could be integrated within the footpath layout around play areas and the Working Group support exploring this as an additional play feature. A similar proposal for a 'mini road bike park' has recently been raised for inclusion within West Melton.*

*The Working Group supports the concept that play equipment needs to provide for children of all ages.*

*The provision of BBQ's, drinking fountains, bins, seating and picnic tables are supported.*

***Q.4) Do you have any other suggestions on items or facilities that could be included in the redevelopment?***

The following recommendations were made:

- Suggestion to incorporate an ANZAC memorial (archway, gates, and honours board) where community could meet on ANZAC day, as no such facility exists currently in Kirwee. Such public gatherings could be run in conjunction with the pavilion.
- Provision for FENZ Fire Brigade training and competitions, consisting of vehicle access to fields, hydrants and drainage, south of the junior fields near bowling club and car parking area. Would be of use in the event of an actual fire as well.
- Consider replicating the post and rail fencing installed at the Hoskyns Rd end of ANZAC Lane for the new Tramway Rd Reserve frontage.
- Service area e.g. for disposal of garden/lawn waste.
- The Darfield Scout Group would like to be considered for the donation of any timber/logs or part of, which may be felled and removed during the development of the reserve.
- The Darfield Scout Group may be available to assist with the development of the Reserve via the likes of tree planting and other community minded activities.

***Suggested Response:***

*ANZAC Memorial - the Working Group has considered this and has ensured that there are options available within the design (key locations) within the reserve development,*

*should the Township Committee or others wish to progress this as a project in future. A part of the proposed Reserve development includes a possible extension of the 'Anzac Walkway' centrally through the Reserve.*

*FENZ training and competitions - The Working Group agree that this can be incorporated into the overall reserve layout and provided for within the irrigation design.*

*Boundary fencing - The Working Group agree. Although only a proportion of the reserve frontage is to be fenced, for protection of off-leash dog exercise. Balance of reserve frontage along Tramway Rd should remain open (e.g. bollards) to allow easy foot access into reserve, but restrict vehicle access.*

*Service area e.g. for disposal of garden/lawn waste - To be forwarded onto Reserve Committee for consideration.*

*The Darfield Scout Group – This is to be worked through with the contractor as to the feasibility of donating wood to the Scout Group, but will be subject to factors like; viability/cost/H&S implications. The Scout Group will be acknowledged for their offer of help.*

**Q.5) Please provide any other comments on the master plan for the reserve extension.**

The following additional recommendations were made:

- Signage within the dog park must stress that dogs should be under 'proper control' when off-lead.
- Provision of litter bins so that people can pick up after their dog.
- Car park could become a boy-racer dragstrip so speed bumps may be needed.

**Suggested Response:**

*It is considered that these are able to be effectively managed via Council compliance procedures and routine management of the reserve. Reserve Committee to monitor and manage in future. The provision of speed bumps is to be considered as part of the car park construction to manage potential issues.*



## **APPENDIX 1.**

### **Community Drop-in Record of Feedback/Discussions**

#### **Summary Statement:**

The below is a written record of main discussion points during the community drop-in session held on the 24 August 2019, 9.30 – 11.00am. The main topics of discussion included:

- Trees (inc. tree species) and shelter
- Dog exercise area
- Traffic and parking
- Lighting
- Kirwee Volunteer Fire Brigade
- Phasing and priorities for development
- Proposed facilities

#### **Specific feedback on Master Plan:**

- Removal of the existing pine tree hedge. Still is still a desire to retain at least until new plantings have established sufficiently. Concern is shelter from wind. Conversely there were comments about not causing delay on the project by trying to work around the pine hedge.
- Discussion over whether or not there is a need to fence the dog park from the cricket oval. It is likely the road will be fenced in some form to avoid safety issue of dogs and proximity to road edge. Ensure rubbish bins are provided for dog litter.
- Considerations around the development of the Tramway Rd berm in line with the wider reserve development (is a wide berm area) and footpath access down road.
- A need to extend the 60km zone and roadside threshold planting as will be a safety issue with proposed reserve entrance/exit.
- Concern around parking on the Tramway rd berm during events – how will this be controlled?
- Bus parking allowed for? Thought that an area of car parking could be coned off to provide this as, as opposed to designated parking as would be infrequent only.
- Consider control measures in car park to deter freedom campers and anti-social behaviour, Speed bumps a good idea to consider and ability to close car park when not in use (could be considered future if issue arises).

- Requested to consider opportunity to host facility for volunteer fire brigade for training competitions, would require hydrants to be included within irrigation design, 2 x drainage pads (away from playing fields) and vehicle access onto grounds. Also new hydrant on eastern boundary to assist firefighting in event of fire to community ctr.
- Discussion was also had around the playground spaces. Residents were supportive of the two playgrounds, pump track and the community hub area. A question was asked regarding whether the playground surface would be bark or rubber matting like that installed recently in Darfield. That is a detail that is yet to be decided.

#### **General feedback:**

- Idea to include fruiting trees within tree plantings, e.g. plum, apple pear – largely disease resistant and easy care. Feijoa an option within shrub borders.
- Other general discussions around tree species selection.
- Like the existing planting down Anzac walkway, and would like to see the extension of daffodil plantings.
- Important to include activates for youth in Kirwee, including more natural areas where children can create their own fun.

#### **Other comments / discussion points:**

- No. 2 rugby field lights currently shine down Tramway Rd and are a safety issue. Lights planned to be upgraded to new LED lighting. It is noted that lighting technology has improved significantly since the existing rugby floodlights were installed.
- Possibility of a walkway linking Kirwee with Darfield via the reserve and Tramway Rd.